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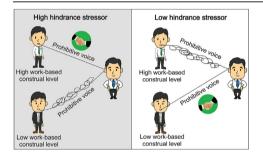
# When prohibitive voice is effective? Exploring the jointly moderating role of hindrance stressor and work-based construal level



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#### G R A P H I C A L A B S T R A C T



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# ABSTRACT

Prohibitive voice is important for employees and organizations to reduce hindrance stressor. However, previous research offered limited knowledge for whether prohibitive voice can lead to communication effectiveness in the context of hindrance stressor. The purpose of our research is to examine how to improve the communication effectiveness of prohibitive voice under hindrance stressor condition. Drawing from information richness theory and construal level theory, this study constructed a model regarding the three-way interactive effect of prohibitive voice, hindrance stressor, and work-based construal level on communication effectiveness. By investigating 55 supervisors and 393 employees, we examined our hypothesis. Results of cross-level analysis offered support for the assumption. Specifically, prohibitive voice from employees who are faced with high hindrance stressor and have high work-based construal level tends to be effective communication. Besides, when both hindrance stressor and work-based construal level are low, the association between prohibitive voice and communication effectiveness also tends to be positive. This study delineates the answer for how to increase communication effectiveness of prohibitive voice in the situation of hindrance stressor.

# 1. Introduction

Hindrance stressor such as red tape, role ambiguity, and organizational politics denotes job demand that not only leads to stressful feelings but also thwarts personal growth (Cavanaugh et al., 2000). Considerable studies have reported that hindrance stressor has damaging effects on job

performance and team performance (Azeem et al., 2022; Li and Tangirala, 2022; Li et al., 2017; Mazzola and Disselhorst, 2019; Naseer et al., 2020; Pearsall et al., 2009). Accordingly, both employees and organizations desire to reduce hindrance stressors. One indispensable method of decreasing hindrance stressors is prohibitive voice behavior (Croucher et al., 2020; Liang et al., 2012), which "describes employees' expressions

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of concern about work practices, incidents, or employee behaviors which are harmful to their organization" (Liang et al., 2012, p.75). However, employees who express dissent on harmful organizational practices may evoke negative emotions (MacMillan et al., 2020) and managers are likely to recognize these employees as troublemakers (Garner, 2019), thereby resulting in ineffective communication. As such, we believe that it is significative to explore how to improve communication effectiveness of prohibitive voice under the condition of hindrance stressor. Communication effectiveness, as used in this study, refers to empathetically sharing timely as well as meaningful information (Sharma and Patterson, 1999).

Unfortunately, research focusing on examining the association between prohibitive voice and communication effectiveness in the context of hindrance stressor is rare. Previous studies have offered abundant knowledge about the effect of prohibitive voice on employees' performance and managers' responses (e.g., Burris et al., 2022; Huang et al., 2018; Lam et al., 2022; Li et al., 2017; Li and Tangirala, 2022; Yang, 2020). These studies indicate that the consequences (e.g., voice endorsement and job performance) caused by prohibitive voice are conditional and depends on various factors such as listeners' characteristics (e.g., Burris et al., 2022), voicers' characteristics (e.g., Yang, 2020), the relationship between voicers and listeners (e.g., Huang et al., 2018), and external environment (e.g., Li et al., 2017). In addition, it has been documented that the strategy of expressing dissent can determine communication effectiveness (Bolkan et al., 2014; Garner, 2012, 2019; Kassing, 2005). For example, Garner (2012) showed that strategies such as solution presentation, circumvention, and repetition were effective ways of upward dissent. Nevertheless, existing literature can hardly provide a clear answer for whether prohibitive voice is an effective mean of communication under the condition of hindrance stressor.

The present research will address this gap and examine the moderating role of hindrance stressor in the relationship between prohibitive voice and communication effectiveness. According to information richness theory, communication would be effective if a communicator offers unambiguous information that can reduce uncertainty (Daft and Lengel, 1986). In order to improve communication effectiveness, voicers need to offer abundant valuable information and consider the situation from multiple angles including other-oriented perspective (Sharma and Patterson, 1999). On the one hand, employees who speak out their ideas

in the face of hindrance stressor might be rated as effective communicators. Hindrance stressor can stimulate a person to produce the need for engaging in voice behavior and make great efforts in preparing information because voice behavior can help to eliminate the uncertainty caused by the hindrance stressor (Ng and Feldman, 2012; Zhou et al., 2019). Meanwhile, prohibitive voice might cause ineffective communication, as hindrance stressor tends to make a person think and behave from the self-concern perspective (Decoster et al., 2014). Therefore, whether hindrance stressor can enhance or undermine the communication effectiveness of prohibitive voice remains unsolved.

We further address this issue by combining construal level theory and introducing work-based construal level (or 'the level of an employee's mental representation of his or her work activity', Reyt and Wiesenfeld, 2015) as a moderator. This moderator was chosen because a higher construal level is associated with a greater possibility of adopting an other-oriented perspective (Holt et al., 2021). Following this logic, employees with high work-based construal level are more likely to express meaningful information from the perspective of others when suffering from hindrance stressor. Therefore, we assume that prohibitive voice should be an effective communication when both work-based construal level and hindrance stressor are high. Work-based construal level might improve the communication effectiveness of prohibitive voice under the condition of hindrance stressor. Besides, the present study might offer another boundary condition for when employees can acquire positive evaluations. Although considerable scholars have documented some answers for when voice behavior is associated with high performance (e.g., Hung et al., 2012; Li et al., 2017; Yang, 2020), these scholars have overlooked the moderating role of hindrance stressor and work-based construal level. Our study will attempt to address this issue by exploring the three-way interaction among hindrance stressor, work-based construal level, and prohibitive voice.

In summary, the objective of our research is focused on testing whether work-based construal level can help improve the communication effectiveness of prohibitive voice under the hindrance stressor condition. Based on construal level theory and information richness theory, our research establishes the jointly moderating role of work-based construal level and hindrance stressor in the relationship between prohibitive voice and communication effectiveness. Using employee-supervisor matched

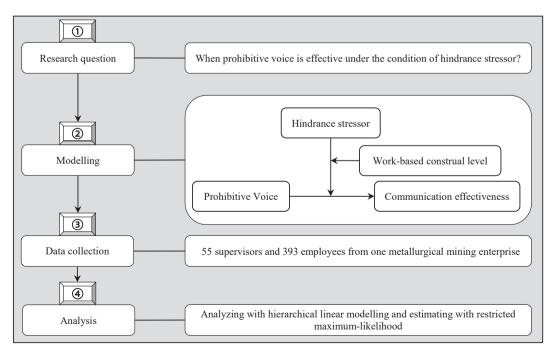


Figure 1. The technology roadmap for the study.

data, we will examine this three-way interactive hypothesis. Figure 1 shows the technology roadmap for this research.

# 2. Theory and hypothesis

# 2.1. Communication effectiveness

Communication effectiveness, which is a critical goal of communication (Kao, 2013), plays a beneficial role in fostering strong relationship and improving organizational function (Ho and Cho, 2017; Park et al., 2014; Sharma and Patterson, 1999). For instance, Park's et al. (2012) study showed that service providers could enhance clients' trust and relationship commitment via effective communication. Neufeld's et al. (2010) research indicated that effective communication helped to improve leaders' performance. Accordingly, many works have been conducted to identify how to increase communication effectiveness (e.g., Garner, 2012; Kassing, 2005; Neufeld et al., 2010; Teng et al., 2020). Communication effectiveness, as used in the present study, is described as individuals' sharing meaningful and timely information with others aimed at informing and educating in an empathetic manner (Sharma and Patterson, 1999). In order to communicate meaningful and timely information, people should not hesitate to offer others much information such as solution and recommended advice (Kassing, 2005; Sharma and Patterson, 1999; Whiting et al., 2012). In terms of the empathetic manner, people should communicate information from receivers' perspectives and exchange resources according to receivers' needs (Lowry et al., 2009; Ulrey and Amason, 2001). As an example, imaging that an employee is going to express dissent about the current working procedure to the supervisor, this employee should not only tell the supervisor why the current working procedure is harmful to himself/herself but also what benefits will the organization can acquire through changing the inefficient working procedure.

The above two aspects of communication effectiveness, namely sharing meaningful information timely and exchanging in an empathetic manner (Sharma and Patterson, 1999), are consistent with information richness theory which emphasizes that the communication effectiveness would be high when the uncertainty and equivocality of the information are reduced (Daft and Lengel, 1986). Uncertainty will occur when the information is absent and communication will become effective if much valuable information is acquired (Daft and Lengel, 1986). By contrast, equivocality or ambiguity means there are multiple conflicting explanations when interpreting the organizational status (Daft and Macintosh, 1981). To eliminate the ambiguity, it is required for speakers to think about listeners' needs and resolve any conflicts through the enactment of a shared interpretation (Daft and Lengel, 1986). It implies that communicating in an empathetic manner is important to decrease the equivocality. Therefore, we believe that sharing meaningful information timely and communicating in an empathetic manner are two indispensable prerequisites for improving communication effectiveness.

# 2.2. Prohibitive voice behavior

Voice behavior is defined as a communication behavior aiming at improving the development of the organization (Van Dyne and LePine, 1998). According to Liang's et al. (2012) study, there are two types of voice behavior (i.e., promotive voice and prohibitive voice). The behavior that expresses attention to existing work practices and potential procedures for improving organizational performance is defined as promotive voice, while prohibitive voice imposes emphasis on expressions regarding existing or impending behavior and points out practices that have damaging effect on the organization. No matter what kind of voice behaviour, both of them can change and challenge the current organizational environment (Liang et al., 2012; Tangirala and

Ramanujam, 2008). Nevertheless, prohibitive voice speakers face more interpersonal risks than promotive voice speakers because prohibitive voice reveals organizational dysfunctions more directly and implies the failure of managers (Liang et al., 2012). As a result, prohibitive voice speakers may acquire worse performance ratings than promotive voice speakers (Chamberlin et al., 2017). The focus of our study is prohibitive voice and we will discuss its impact on communication effectiveness because it can detect problems about the impeding role of hindrance stressor.

# 2.3. The relationship between prohibitive voice and communication effectiveness

It is unclear about the impact of prohibitive voice on communication effectiveness. First, prohibitive voice implies the failure of persons in charge because its focus is stopping or preventing harmful practices (Liang et al., 2012). As such, this type of voice behavior may induce opposition among coworkers and supervisors. In addition, as the content of prohibitive voice involves negative aspects of organizational practice (Liang et al., 2012), managers may appraise prohibitive voice as complaining or personal criticism instead of caring about organizational development. As such, prohibitive voice speakers may be perceived as ineffective communicators who do not consider others' or organizational perspectives. Second, prohibitive voice is a pro-organizational behavior aimed at helping organizations (Liang et al., 2012). Empirical studies also reported that prohibitive voice could increase innovation performance (e.g., Liang et al., 2019) and team safety performance (e.g., Li et al., 2017). Hence, prohibitive voice can be enacted by pro-social motivation and may be rated as communicating from an organizational perspective. Third, communication effectiveness also requires a speaker to provide abundant information besides the other-oriented perspective (Sharma and Patterson, 1999; Wu and Keysar, 2010). However, prohibitive voice involves only harmful factors, not necessarily providing detailed information such as clear solutions (Liang et al., 2012). It means that prohibitive voice has no theoretical relationship with information richness, and we can hardly establish the impact of prohibitive voice on communication effectiveness. In order to predict communication effectiveness, it is necessary to clarify the context in which prohibitive voice occurs.

# 2.4. The moderation of hindrance stressor

Hindrance stressor is appraised as inhibiting factors of personal growth (Cavanaugh et al., 2000). It has been shown that hindrance stressor would lead to negative consequences such as job dissatisfaction and burnout (Mazzola and Disselhorst, 2019). Given the unpleasant feelings caused by the hindrance stressor (Mazzola and Disselhorst, 2019), employees should desire to make a change. As an example, Lu et al. (2014) suggested that employees were more willing to redesign their work content and environment when faced with hindrance factors. Therefore, we argue that hindrance stressor can strengthen the motivation of taking a change and make employees process more information. Previous literature also indicated that discomfort feelings can motivate a person to process information in a more effortful way (Nordgren et al., 2006). We propose that prohibitive voice speakers in the context of hindrance stressor are able to provide richer information, thereby increasing communication effectiveness. However, hindrance stressor may lower job satisfaction and decrease extra-role behavior (Mazzola and Disselhorst, 2019; Podsakoff et al., 2007). It means that employees who are suffering from hindrance stressor are less likely to show empathy to organizations. Supporting this argument, Decoster et al. (2014) demonstrated that hindrance stressor encouraged employees to engage in self-serving behavior. Hence, hindrance stressor may enforce prohibitive voice speakers to communicate in a self-interest way and damage the communication effectiveness of expressing dissent.

In addtion, we argue that the association between prohibitive voice and communication effectiveness is also uncertain when hindrance stressor is low. As discussed above, employees who are faced with fewer hindrance stressors have a high tendency to experience job satisfaction and engage in pro-organizational behavior (Mazzola and Disselhorst, 2019; Podsakoff et al., 2007). In this case, prohibitive voice will be identified as pro-social behavior and may be taken for effectiveness. Nevertheless, low hindrance stressor makes employees satisfied with the status quo (Cavanaugh et al., 2000), and they have weak motivation to change the workplace. Consequently, these employees engage less effort in processing change-oriented information and offer few messages in the process of prohibitive voice. In summary, we argue that hindrance stressor cannot moderate the association between prohibitive voice and communication effectiveness.

# 2.5. The moderation of work-based construal level

To clarify the moderating role of hindrance stressor in the relationship between prohibitive voice and communication effectiveness, this study draws into construal level theory (Liberman and Trope, 1998) which argues that individuals' mental representations are organized in a hierarchy varying from lower construal (more concrete) to higher construal (more abstract). Mental representations or mindsets of employees have been a widely used factor in organizational research (Wiesenfeld et al., 2017). High-level construal allows individuals to mentally transcend their own current experience, which enables them to think from multiple perspectives (Trope and Liberman, 2010). Supporting this assertion is Holt's et al. (2021) research which argued that people with high construal can think in the manner of other-oriented perspective taking (i.e., cognitive empathy). Therefore, high-construal employees would consider beyond their own needs and think from the organizational perspective when they are suffering from hindrance stressor. As illustrated above, these employees can also make great efforts in processing information because of the strong motivation to reduce the negative consequence of hindrance stressor. Hence, a high construal level will make employees in the scenario of hindrance stressor speak out rich information in an empathy way.

In addition, we argue that a low construal level can improve the effectiveness of prohibitive voice in the case of low hindrance stressor. In the above section, we have proposed that low hindrance stressor is associated with positive feelings in the workplace. As the present feelings are the focus of individual who have a low construal level (Trope and Liberman, 2010), they can express their positive attitude towards the organization, and their prohibitive voice would be appraised as empathy. Furthermore, numerous studies support that means are related to low construal level, while outcomes are associated with high construal level (e.g., Baskin et al., 2014; Liberman and Trope, 1998). It is because outcomes are superior to means and one outcome may be achieved via multiple means (Liberman and Trope, 1998; Wiesenfeld et al., 2017). We, therefore, argue that low construal allows a person to think about the means of implementing their ideas, while high construal makes a person consider the outcomes of their prohibitive voice. It implies that employees whose mental representations are low construal are more likely to add specific solutions for carrying out their voice. Evidence also reported that employees would acquire a positive evaluation when they speak out about more solutions (Whiting et al., 2012). Hence, we propose that prohibitive voice will be effective when employees with low construal are in a workplace without hindrance stressor. Therefore, the following hypothesis is made:

**Hypothesis 1**. A three-way interaction will emerge such that the positive impact of prohibitive voice on communication effectiveness is stronger when both work-based construal level and hindrance stressor are at high levels or both of them are at low levels.

## 3. Method

# 3.1. Participants and procedures

We recruited participants from one metallurgical mining enterprise in northeast China. We first told these participants the purpose and procedure of our survey. If they agreed to participate in our survey, we would send them questionnaires. The institutional committee of the university where the author is working has confirmed that the procedures of our study followed the ethical standards. We collected supervisoremployee matched data. Data of prohibitive voice, hindrance stressor, work-based construal level and demographics variables were collected from employees, and employees' communication effectiveness is rated by their supervisors. We acquired a list of 414 employees with the help of a human resource manager. This manager assigned pencil-and-paper questionnaires with identification numbers to focal employees, and then contacted the employees' immediate supervisors to evaluate the designated subordinates' communication effectiveness. Overall, separate questionnaires were administered to 414 subordinates and their 55 supervisors. Finally, 393 employees and 55 supervisors returned the

Among these data, we obtained valid questionnaires from 393 subordinates who had matched immediate supervisors, and these data were included in our final analysis. Over sixty percent (66.9%) of these participants were male and only 9.7% were unmarried. The average age of them was 37.96 years (SD = 7.72 years). As to education, 17.3% of them had bachelor's degrees and above, 34.6% had junior college's degrees, and the others had lower levels of education. The average organizational tenure of them was 5.46 years (SD = 3.52 years) and the average job experience of them was 16.90 years (SD = 7.84 years). Most of the employees were front-line workers (94.4%).

# 3.2. Measures

Following Brislin's (1980) procedure, we translated original English scales into Chinese. Unless specially noted, all the Likert scales were recorded using five points ("1" represents "strongly disagree", and "5" represents "strongly agree"). Measurements of the variables were showed in Table 1.

*Prohibitive Voice.* Liang's et al. (2012) six-item prohibitive voice scale was adopted in this study. The Cronbach's  $\alpha$  of this measurement is 0.83.

Hindrance Stressor. Zhang's et al. (2014) seven-item hindrance stressor scale was adopted in our research. Participants were asked to "rate the frequency of these demands in your daily work". A five-point Likert scale was used to measure participants' responses, with "1" representing "never" and "5" representing "extremely often". The Cronbach's  $\alpha$  of this measurement is 0.89.

Work-Based Construal Level. Reyt and Wiesenfeld's (2015) eighteen-item work-based construal level scale was adopted in this

Table 1. The measurement of the variables

Scale	Sample items	α
Prohibitive voice	"I advise other colleagues against undesirable behavior that would hamper job performance"	0.83
Hindrance stressor	"The degree to which politics affects organizational decisions"	0.89
Work-based construal level	"Using a computer"	0.82
Communication effectiveness	"This employees never hesitated to provide sufficient information"	0.84
Communication effectiveness  Note: $\alpha = \text{Cronbach's alpha}$ .		

research. This scale includes 18 work activities and each of them can be represented two descriptions: one is low construal level description and the other one is high construal level description. For example, the work activity of "using a computer" was followed by "typing on a keyboard" (low construal level description) and "processing information" (high construal level description). We required participants to select one description which better represented how they understand each work activity. The Cronbach's  $\alpha$  of this measurement is 0.82. The score of work-based construal level was the sum of abstract descriptions (i.e., high-level descriptions) selected (Vallacher and Wegner, 1989).

Communication Effectiveness. Sharma and Patterson's (1999) four-item communication effectiveness scale was adopted in this study. The Cronbach's  $\alpha$  of this measurement is 0.84.

Control Variables. Demographic variables including employees' gender, age, education, and organizational tenure were selected as potential control variables (e.g., Teng et al., 2020). Nevertheless, only organizational tenure is significantly correlated with communication effectiveness (see Table 2). To prevent Type I and II errors because of adding impotent control variables (Becker, 2005), we only controlled organizational tenure in our analysis. Employees' job position was not included as a control variable due to that almost all of the participants are front-line workers. Nevertheless, results of this study did not change when we controlled for this variable or listwise-deleted the data from managers.

# 3.3. Analytical approach

Multiple employees' communication effectiveness was rated by one supervisor. Hence, the employees were nested within their supervisors and this violated the independence assumption. To address the nonindependence in the measurement of communication effectiveness, we utilized hierarchical linear modelling (HLM) to examine our assumption (Raudenbush and Bryk, 2002). Specifically, we adopted HLM version 6.08 and estimated the parameters with restricted maximum-likelihood (RML). There are only individual-level (level 1) variables in our model. Following Hofmann's et al. (2000) suggestion, the variables in Level 1 were group-mean centered.

# 4. Results

# 4.1. Descriptive statistics and Pearson's correlation

The means, standard deviations and correlation coefficients of the variables were showed in Table 2. As shown in the table, the correlation between prohibitive voice and communication effectiveness is not significantly ( $r=0.04,\ p>0.1$ ) which is consistent with our assumption.

# 4.2. Confirmatory factor analysis

A confirmatory factor analysis (CFA) was conducted to test the construct validity of the variables in our study. Following Vallacher and Wegner's (1989) recommendation, we reflected work-based construal level as the sum of high-level options selected. As the computational formula of work-based construal level is different from that of the other variables in this study, we cannot load the eighteen items of work-based construal level on its latent factor as we do with the other variables in the measurement model. In addition, all the work-based construal level items are dichotomous, the estimation method that we load all items of work-based construal level on the latent factor violate a normality assumption. Therefore, we excluded work-based construal level in the CFA. To lower the number of parameters to be estimated, we combined some items into parcels. For prohibitive voice, we calculated one parcel using the mean of two items (i.e., "Advise other colleagues against undesirable behaviors that would hamper job performance" and "Speak up honestly with problems that might cause serious loss to the work unit, even when/though dissenting opinions exist"). For hindrance stressor, we also calculated one parcel that represents the mean of two items (i.e., "role ambiguity" and "role and interpersonal conflict"). These items were parceled because sample errors of these items were highly correlated. We examined the fit of the one-factor, two-factor (combining prohibitive voice and communication effectiveness, and hindrance stressor), against our hypothesized three-factor measurement model (see Table 3). Among these models, the measurement model that gave the best fit for the data was the hypothesized three-factor model ( $\chi^2 = 185.31$ , df = 74, CFI = 0.5, IFI = 0.95, SRMR = 0.04, RMSEA = 0.06).

## 4.3. Hypotheses testing

We used a one-way analysis of variance with communication effectiveness as the dependent variable to examine the nonindependence of

Table 3. Results of confirmative factor analysis.

Model	$\chi^2$	df	CFI	IFI	SRMR	RMSEA	$\triangle \chi^2(df)$
One-factor model	1255.29	77	0.50	0.51	0.17	0.20	-
Two-factor model	787.95	76	0.70	0.70	0.14	0.16	467.34 (1)***
Three-factor model	185.31	74	0.95	0.95	0.04	0.06	602.64 (2)***

Note: \*\*\*p < 0.001. One-factor model: prohibitive voice + hindrance stressor + communication effectiveness; Two-factor model: prohibitive voice + communication effectiveness, hindrance stressor; Three-factor model: prohibitive voice, hindrance stressor, communication effectiveness.

Table 2. The mean, standard deviation and correlations between the variables.

Variables	1	2	3	4	5	6	7	8
1. Prohibitive voice	(0.83)							
2. Hindrance stressor	0.43***	(0.89)						
3. Work-based construal level	0.01	0.02	(0.82)					
4. Communication effectiveness	0.04	0.01	-0.00	(0.84)				
5. <sup>a</sup> Gender	-0.03	-0.07	0.22***	0.06	-			
6. Age in year	0.07	0.05	-0.01	-0.03	0.16**	-		
7. <sup>b</sup> Education	-0.08	-0.10*	0.14**	-0.02	-0.02	-0.41***	-	
8. Organizational tenure in year	-0.19***	-0.19***	0.11*	-0.10*	0.17***	0.33***	-0.04	-
Mean	2.99	2.78	6.21	3.26	0.33	37.96	1.69	5.46
S.D.	0.51	0.66	4.18	0.53	0.47	7.72	0.75	3.52

Note: N = 393, \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001; The values in the parentheses represent cronbach' $\alpha$  reliability coefficient. <sup>a</sup>Gender ("0" male; "1" female). <sup>b</sup>Education ("1" high school and blow; "2" junior college"3" bachelor and above).

Table 4. Results of hierarchical linear model.

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	3.24 (0.04)***	3.24 (0.04)***	3.24 (0.04)***	3.24 (0.04)***	3.24 (0.04)***
Organizational tenure in year		0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)
Prohibitive voice		0.02 (0.07)	0.01 (0.08)	0.01 (0.08)	0.00 (0.08)
Hindrance stressor			0.02 (0.05)	0.01 (0.05)	-0.00 (0.05)
Prohibitive voice × Hindrance stressor			-0.03 (0.08)	-0.03 (0.08)	-0.07 (0.08)
Work-based construal level				0.01 (0.01)	0.00 (0.01)
Prohibitive voice × Work-based construal level				-0.00 (0.01)	0.00 (0.01)
Hindrance stressor × Work-based construal level				-0.01 (0.01)	-0.01 (0.01)
Prohibitive voice $\times$ Hindrance stressor $\times$ Work-based construal level					0.06 (0.02)*
$\sigma^2$	0.202	0.204	0.205	0.205	0.201
τ (intercept)	0.080	0.080	0.080	0.080	0.080
-2 log likelihood	562.42	573.43	580.21	598.74	599.01

Note: N (level 1) = 393, N (level 2) = 55; \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001; All data are unstandardized estimates and the values in the parentheses represent the standard error of the unstandardized regression coefficient.

supervisor-rated communication effectiveness. The results indicated that each supervisor rated their employees on communication effectiveness in significantly different ways (F[54,~338]=3.80,~p<0.001). This provided evidence that modeling supervisor-rated communication effectiveness as non-independent was both appropriate and necessary. Hence, we used HLM to examine our hypothesis.

This study conducted hierarchical moderated regression analysis to examine our hypothesis. After centralizing prohibitive voice, hindrance stressor and work-based construal level, this study computed all of the interaction items. The results of the hierarchical regression are shown in Table 4. Model 2 in Table 4 shows that the effect of prohibitive voice on communication effectiveness is not significant (B=0.02, S.E.=0.07, p>0.10). Model 3 shows that the moderating effect of hindrance stressor is not significant (B=-0.03, S.E.=0.08, p>0.10). However, as hypothesized, Model 5 shows that the three-way interactive effect of prohibitive voice, hindrance stressor and work-based construal level on communication effectiveness is significant (B=0.06, S.E.=0.02, p<0.05).

To further demonstrate our hypothesis, we divided theoretical high and low value based on one standard deviation above and below the mean value of hindrance stressor as well as work-based construal level (Aiken and West, 1991), and drew Figure 2. As shown in Figure 2, the relationship between prohibitive voice and communication effectiveness tends to be positive when both hindrance stressor and work-based construal level are high or low. When hindrance stressor is high and work-based construal level is low, the relationship between prohibitive

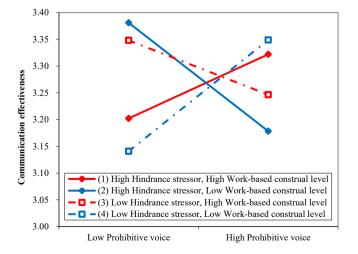


Figure 2. Results of the three-way interaction among prohibitive voice, hindrance stressor and work-based construal level.

voice and communication effectiveness tends to be negative. Such relationship tends to be negative when hindrance stressor is low and work-based construal level is high. Given our directional hypothesis, these results support our theorizing.

## 5. Discussion

The current research examined the conditional relationship between prohibitive voice and communication effectiveness. The results indicated that the effect of prohibitive voice on communication effectiveness was not significant. Our finding is similar to past research which reported that the impact of prohibitive voice was weak (e.g., Burris et al., 2022; Chamberlin et al., 2017; Huang et al., 2018; Lam et al., 2022; Yang, 2020). For example, Chamberlin's et al. (2017) meta-analytic study indicated that the relationship between prohibitive voice and job performance was not significant. Similarly, Lam's et al. (2022) empirical study showed that there was no significant relationship between prohibitive voice and managers' voice endorsement.

We also found the joint moderating role of hindrance stressor and work-based construal level in the association between prohibitive voice and communication effectiveness. For employees who view their work through abstract, high-level descriptions, hindrance stressor can strengthen the positive linkage between prohibitive voice and communication effectiveness. In contrast, low-level hindrance stressor can enhance the positive relationship between these two variables for employees who view their work through concrete, low-level descriptions. This finding demonstrates that situational factors (i.e., hindrance stressor) and employees' characteristics (i.e., work-based construal level) can determine the effect of prohibitive voice on communication effectiveness. In support of our findings, previous voice literature also documented that there were many moderators which can change the outcomes of voice behavior (e.g., Brykman and Raver, 2021; Hung et al., 2012; McClean et al., 2022; Yang, 2020). For instance, Yang's (2020) empirical research showed that prevention regulatory focus fit can enhance the positive association between prohibitive voice and safety performance. The study by McClean et al. (2022) proposed that whether managers endorse employees' voice depends on both the content of voice and employees' gender. Our findings offer important theoretical implications for understanding when prohibitive voice is an effective way of reducing hindrance stressor.

# 5.1. Theoretical implications

This study provides answers for how to improve the communication effectiveness of prohibitive voice when employees are confronting

hindrance stressor. Both employees and managers are eager to remove the hindrance stressor which has been proved a threat to personal growth and performance (Mazzola and Disselhorst, 2019; Pearsall et al., 2009). Effectively carrying out prohibitive voice can help improve the status quo and cope with hindrance stressor. However, previous research did not explore the moderating role of hindrance stressor in the relationship between prohibitive voice and communication effectiveness. This research addressed this drawback and found that a high work-based construal level contributes to reinforcing the communication effectiveness of prohibitive voice under the hindrance stressor condition. Furthermore, results of our study indicated that low work-based construal level allowed employees who experience low hindrance stressor to effectively express their concerns and fix flaws in current organizations. Hence, this study also offers implications for organizations with fewer hindrance stressors to make continuous improvements.

Further, this study enriches the communication research by exploring the role of situational (i.e., hindrance stressor) and cognitive (i.e., work-based construal level) factors in determining the effectiveness of organizational dissent. Prohibitive voice can be regarded as a type of prosocial organizational dissent (Han and Xie, 2015). However, most studies on organizational dissent focus on what dissent strategy is effective (e.g., Bolkan et al., 2014; Garner, 2012; Garner, 2019). Rare research is to examine when and whose expression of dissent is the most effective communication. Our findings that prohibitive voice from employees with high construal level can lead to communication effectiveness in the condition of high-level hindrance stressor contribute to this stream of research

Finally, our study enriches the nomological network of voice behavior by exploring the relationship between prohibitive voice and communication effectiveness. Amounts of outcomes including job satisfaction (Liang and Yeh, 2020), job performance (Hung et al., 2012), and so on (e.g., Chamberlin et al., 2017; King et al., 2020; Weiss and Morrison, 2019) have been linked to voice behavior except examining communication effectiveness. The present research addresses it by bridging the relationship between prohibitive voice and communication effectiveness. Findings of the three-way interaction offer a boundary condition for the positive relationship between prohibitive voice and communication effectiveness. To increase communication effectiveness, prohibitive voice speakers should not only consider the situation (i.e., hindrance stressor) but also the cognitive mindset (i.e., work-based construal level).

# 5.2. Practical implications

The present study highlights the joint role of work-based construal level and hindrance stressor in facilitating the communication effectiveness of prohibitive voice. Findings of our study show that a highconstrual mindset helps employees under the condition of high hindrance stressor speak out their concerns in an empathetic manner and a low-construal mindset makes employees under low hindrance stressor add more means of solving problems into their prohibitive voice. It is consistent with Han's et al. (2016) assumption that high and low construal level is paired with emotion-focused and problem-focused coping strategy respectively. To capture effective voice, managers should manipulate employees' cognitive mindset according to the feature of job demands. For example, it is important for managers to organize cognitive training and increase employees' construal level when their job demand is hindrance. In contrast, managers should cultivate employees' mindset of capturing targets' superordinate features when employees suffer from low hindrance job demand.

# 5.3. Limitations and future study

We explored our assumption utilizing multi-source data. However, our research has some limitations. First, our study assumed that offering rich information and showing empathy were two requirements of communication effectiveness, and these two aspects were critical mechanisms to establish our hypothesis. Although findings of our study offered evidence for the assumption, we did not measure them and this might constrain our contribution. Future research should measure them using appropriate scales and examine the mechanism of our hypothesis. Second, our data were cross-sectional which can hardly confirm the causal effect. For example, there is another reversal effect that employees who are evaluated as communication effectiveness are more likely to engage in prohibitive voice. To rule out reverse causality, future research should adopt longitudinal or quasi-experimental designs. Finally, our samples were from one enterprise in China, which might constrain our findings' generalizability. As our findings may be affected by the sample characteristics (Aguinis et al., 2005), future research should examine our hypothesis using other samples.

## 6. Conclusions

This study showed that the association between prohibitive voice and communication effectiveness depends on hindrance stressor and work-based construal level. The positive linkage between prohibitive voice and communication effectiveness is stronger in the following two conditions: one is that both work-based construal level and hindrance stressor are high and the other one is that both work-based construal level and hindrance stressor are low. Findings of our research study provide a perspective on how employees effectively utilize prohibitive voice to cope with hindrance stressor.

## **Declarations**

#### Author contribution statement

Long Chen: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

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# Data availability statement

Data will be made available on request.

# Declaration of interest's statement

The authors declare no conflict of interest.

# Additional information

Supplementary content related to this article has been published online at https://doi.org/10.1016/j.heliyon.2022.e11116.

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