

ARE POSITIVE TEAMS MORE PROACTIVE IN PERFORMING VOICE BEHAVIOR? INFLUENCE OF CORE SELF-EVALUATIONS ON COLLECTIVE VOICE

LEI WANG AND PAN HU
Tsinghua University

Voice behavior is regarded as being an individual proactive behavior. We suggested that although team members who have a positive self-concept may display voice behavior consistently, the frequency of this behavior would be influenced by the composition of team members' positivity. Thus, we investigated the relationship between core self-evaluations and collective voice behavior in self-managed teams. Results from analysis of data obtained from 76 student teams (302 team members) who worked on 2 tasks demonstrated that their core self-evaluations had a positive effect on the likelihood of their performing voice behavior at both the individual and team levels. Moreover, interpersonal team processes fully mediated the relationship between the composition of team core self-evaluations and collective voice at the team level. Theoretical and practical implications are discussed.

Keywords: collective voice, voice behavior, positivity, core self-evaluations, team processes, self-managed teams, proactivity.

As the structure of organizations has become flatter, the interest of both researchers and practitioners in teams has grown (Mathieu, Maynard, Rapp, & Gilson, 2008; Mathieu, Tannenbaum, Donsbach, & Alliger, 2014). This trend toward decentralization has produced greater competition and pressure in organizations, which, in turn, has made proactivity even more important (Erkutlu, 2012; Parker & Collins, 2010).

Lei Wang and Pan Hu, Leadership and Organization Management Department, School of Economics and Management, Tsinghua University.

Lei Wang's research was supported by the National Natural Science Foundation of China (71302019). Correspondence concerning this article should be addressed to Lei Wang, Room 344, Weilun Building, Leadership and Organization Management Department, School of Economics and Management, Tsinghua University, Beijing 100084, People's Republic of China. Email: wanglei@sem.tsinghua.edu.cn

Of the different types of teams, *self-managed teams* (SMTs) have received organizational attention as they particularly fit the flat structure. As SMTs do not have formal leaders or structures (Cohen & Bailey, 1997), they must consist of members who tend to be proactive in improving team functioning. Team development is a process in which members define and clarify their roles (Humphrey, Hollenbeck, Meyer, & Ilgen, 2007), and proactive individuals tend to construe and redefine their roles by incorporating new tasks and goals (Frese & Fay, 2001). Thus, in SMTs where team members' roles are ambiguous, proactivity is required to ensure that the role construction process can be initiated and that members can claim all needed tasks. However, Hackman and Katz (2010) expressed the view that responsibility for deciding when teams should be used to perform work does not rest mainly with those who create them because most teams are remarkably passive and accepting, even when "given a task that is inappropriate for a collective work, or when the group is poorly structured or inadequately supported, or when the broader social context is unfriendly to collaboration" (p. 1213). Oldham and Hackman (2010) also observed that, as little is known about the cause of passivity in teams or what would foster greater proactivity, it would be good to know more. Therefore, in the current study we focused on a specific proactive behavior—voice behavior—to investigate the antecedents of team proactivity.

Proactivity refers to individuals' complementary tendencies and actions to change themselves and their environment (Bateman & Crant, 1993; Grant & Ashford, 2008; Thomas, Whitman, & Viswesvaran, 2010). *Voice behavior* refers to individuals' discretionary verbal communication of ideas and suggestions to improve organizational functioning (Greenberg & Edwards, 2009; LePine & Van Dyne, 1998; Morrison, Wheeler-Smith, & Kamdar, 2011). Voice behavior has emerged as a principal topic of interest among organizational researchers (e.g., Grant, Gino, & Hofmann, 2011). However, most researchers have considered this concept at the individual level (Williams, Parker, & Turner, 2010), and paid more attention to how proactivity works to build personal success, rather than how it works for the survival and success for others and the team. Organ (1988) pointed out that proactive behavior, such as organizational citizenship behavior, has the strongest impact on organizational effectiveness, when considered in the aggregate. In addition, McClean, Burris, and Detert (2013) reported that voice behavior and turnover are associated at the collective level, and Frazier and Bowler (2015) found that group voice behavior mediates the relationship between voice climate and work outcomes. These results indicate that it would be fruitful to investigate voice behavior in teams (LePine & Van Dyne, 1998), and treat voice behavior as a team-level concept.

Various researchers have found that proactive behavior can be driven by personality traits (e.g., Carson, Baker, & Lanier, 2014; Parker & Collins,

2010), such as the Big Five factors (Prenda & Lachman, 2001), self-monitoring (DeMarree, Wheeler, & Petty, 2005), core self-evaluations (E. C. Johnson, Kristof-Brown, Van Vianen, De Pater, & Klein, 2003), and proactive personality (Parker, Williams, & Turner, 2006). However, the relationship between personality traits and proactive behavior was considered only at the individual level in these studies.

Team composition at the team level can have a pronounced impact on collective behavior and interpersonal interaction (Humphrey et al., 2007; Morgeson & Hofmann, 1999). According to a meta-analysis by Bell (2007), researchers' interest in team composition has shifted from surface-level composition variables (i.e., demographic characteristics) to deep-level composition variables, such as personality factors, values, and attitudes (LePine, Buckman, Crawford, & Methot, 2011). In view of the relative lack of research on team personality composition and collective voice (Crant, 2000; Grant & Ashford, 2008; Morrison, 2011; Williams et al., 2010), in the current study we investigated the relationship between the positive personality trait of core self-evaluations and the emergence of voice behavior in SMTs at both individual and team levels. *Core self-evaluations* (CSEs) are defined as individuals' fundamental assessments that they make about themselves (Judge, Erez, Bono, & Thoresen, 2003), and comprise four components: self-esteem, generalized self-efficacy, neuroticism, and locus of control (Judge, Bono, Erez, & Locke, 2005; Judge, Erez, & Bono, 1998; Judge et al., 2003). We used CSEs as a specific type of positive personality as the four components of CSEs both separately and aggregated emerge as a stable positive trait (Luthans & Youssef, 2007). Thus, we asked the following research questions:

Research Question 1: Do team members with higher CSEs than their fellow members have perform voice behavior more frequently than other team members do?

Research Question 2: Do teams composed of more positive members, namely, with higher CSEs, tend to have a stronger collective voice than teams composed of members who are less positive have?

Research Question 3: What is the mechanism between the composition of a team's CSEs and its collective voice?

Literature Review and Development of Hypotheses

Core Self-Evaluations and Individual Voice Behavior

Team members with higher CSEs should engage in more proactive behavior than those with lower CSEs, for three reasons: First, they are more confident about their ability to initiate action, as they believe that they have the capability to control, take charge, and influence others (Erez & Judge, 2001). Consequently,

they are more likely to express their opinion about the team goals and dynamics and to suggest ways to achieve them. Aryee, Walumbwa, Mondejar, and Chu (2017) found that, as CSEs are positively associated with approach motivation and personal control perceptions, individuals with higher CSEs initiate action like voice behavior to craft their jobs more broadly. In their study across two organizations, Griffin, Neal, and Parker (2007) reported that role breadth self-efficacy was the strongest predictor of team member proactivity.

Second, team members with higher CSEs than their fellow members are more resilient when their proactive behavior fails. In general, failure of proactive behavior may decrease individuals' motivation to engage in this behavior in future, as such failure undermines self-efficacy (Lindsley, Brass, & Thomas, 1995). However, Judge and Kammeyer-Mueller (2011) found that employees with high CSEs were more active than other employees were in authority-challenging behavior because they believed they had the capability to control the process of idea implementation and they tended not to worry and have doubt in the face of uncertainty. Carver (2004) also found that as team members with higher CSEs possessed higher and more positive self-regard, they kept their self-image above the threshold of positivity after receiving negative feedback, and thus did not need to give up their proactive behavior to maintain or prop up their self-image. Empirically, self-esteem, a component of CSEs, has been reported as an important antecedent of voice (LePine & Van Dyne, 1998; Van Dyne, Cummings, & McLean Parks, 1995).

Third, team members with high CSEs anticipate greater accomplishment and are therefore more motivated to improve the status quo. Srivastava, Locke, and Judge (2010) found that individuals with high CSEs sought and chose more complex tasks. Parker, Bindl, and Strauss (2010) suggested that positive self-belief (e.g., CSEs) can enhance individuals' perceptions of their capability to deal with difficulties, resulting in greater motivation. Thus, team members with higher CSEs may be expected to perform voice behavior more often to help the team achieve a higher goal. As such, we proposed the following hypothesis: **Hypothesis 1:** In SMTs those team members with higher core self-evaluations than their peers will perform voice behavior more frequently.

Composition of Team Core Self-Evaluations and Collective Voice

Team composition has been established as an antecedent of team interaction (e.g., Cohen & Bailey, 1997). In her meta-analysis Bell (2007) showed that, for team composition, the appropriation of the operationalization did, indeed, rely on the match between the trait of interest and the way members fit into the team in terms of this trait. In fit theory, there are two types of fit, supplementary and complementary (Kristof, 1996). According to fit theory, it is suggested that supplementary fit means that members will be more productive when they are similar to others in the team, whereas complementary fit means that the team

will be productive if its members fill unmet needs (Humphrey et al., 2007). In our study, we proposed that teams would benefit from having members with similar high CSEs, because they would be more comfortable working with others in the team, would share the same goals, and would experience less conflict. Therefore, the aggregation of individual-level CSEs (i.e., mean CSEs) should be used to indicate the composition of team CSEs. Previous team researchers have supported using mean CSEs to represent a favorable team composition. For example, Haynie (2011) proposed that mean CSEs would be positively related to team performance. In addition, Zhang and Peterson (2011) described mean CSEs as an overall level of CSEs and found that mean CSEs moderate the relationship between transformational leadership and intrateam advice network density. In Bell's (2007) meta-analysis, she concluded that the mean may be the single best representation of a distribution in the case of team composition.

On the other hand, drawing on Morgeson and Hofmann's (1999) framework, we argued that individual voice behavior can be conceptualized at the team level because it is not independent and random in the team context, such that collective voice would originate from team members' interaction. Specifically, we reasoned that through similar sense-making procedures, shared information, and mutual influence, the members of a team tend to interpret voice behavior in the same way, namely, that voicing will be effective and it is safe. This shared understanding and interpretation of voice behavior facilitates the emergence of future voice behavior, yielding prevalent and shared voice behavior, that is, collective voice.

Most proactive behavior researchers have focused on the impact of this behavior on personal survival and success (Crant, 2000); however, few researchers have examined how the behavior changes organizational contexts (Grant & Ashford, 2008). We suggested that *collective voice* represents a context that is determined by individual voice behavior and is helpful for team effectiveness. We argued that when the CSEs of team members is a good fit, this promotes the emergence of individual voice behavior, which, by its prevalence, will establish an atmosphere that encourages team members to perform voicing and be proactive for the team's benefit. The more often that team members observe voice behavior, the more they should feel that speaking up is safe, as this behavior turns out to be common (Morrison, 2011). Therefore, the more often team members perform voice behavior, the stronger collective voice will be.

Podsakoff, Maynes, Whiting, and Podsakoff (2015) suggested that collective voice could be operationalized as the frequency of voice events in a team (i.e., team referent) or the proportion of team members performing voice behavior (i.e., individual referent). The selection of the research method depends on the researcher's interest and the theoretical framework. Given the supplementary nature of voice, the aggregation of voice (i.e., mean voice) should reflect frequent performance of voice behavior across the team, and should be associated with

desired team outcomes (Prewett, Walvoord, Stilson, Rossi, & Brannick, 2009). Thus, we used the team referent method in our study, because we aggregated data at the team level while controlling for variance at the individual level. Therefore, the relationship at the team level of analysis was suggested, and we proposed the following hypotheses:

Hypothesis 2: Individuals will perform voice behavior more often in teams with higher mean core self-evaluations when the variance in core self-evaluations is controlled.

Hypothesis 3: The mean core self-evaluations of a team will predict the strength of its collective voice.

Mediating Role of Team Processes

Team processes, which refer to the interaction between team members and their task environment, as well as to the interaction among team members, are one of the most important mechanisms underlying team input and output (Marks, Mathieu, & Zaccaro, 2001). According to Marks et al. (2001), the interpersonal aspects of team processes, such as conflict management, motivation and confidence building, and affect management, influence the way interdependent team members use various resources to yield desired outcomes. On the basis of the input–process–outcome model (Marks et al., 2001), we argued that interpersonal team processes can work as the mediating mechanism between composition of team CSEs (input) and collective voice (output).

In our study, we focused on two aspects of interpersonal processes: cohesion and open communication (Barry & Stewart, 1997), because these aspects reflect team members' feeling of being attached to and determined to reach team goals (Weldon & Weingart, 1993). *Cohesion* refers to team members' commitment to the team's task or to their team members (Goodman, Ravlin, & Schminke, 1987). It has been established that cohesion has a positive relationship with team performance (Beal, Cohen, Burke, & McLendon, 2003; Cohen & Bailey, 1997; Evans & Dion, 1991). *Open communication* refers to the processes of free and unrestricted exchange of ideas with an equal opportunity to participate in the discussion (Barry & Stewart, 1997) and it has been widely accepted as a major type of team process (see, for a review, Lepine, Piccolo, Jackson, Mathieu, & Saul, 2008). Researchers have shown that the quantity and quality of verbal interaction in a team is associated with members' motivation (e.g., Pack, Hemmings, & Greenlees, 2002; Sorrentino & Boutillier, 1975).

Researchers have supported the relationship between team personality composition and team processes (e.g., Barrick, Stewart, Neubert, & Mount, 1998; Barry & Stewart, 1997). Although, to our knowledge, the relationship between CSEs and team processes at the team level has not yet been studied, the relationship between CSEs and individual commitment to the team can be justified at the team level. Team members who think of themselves negatively

tend to react differently to their job responsibilities compared to those who think of themselves positively (Judge & Bono, 2001; Judge, Bono, & Locke, 2000). As team members with higher CSEs consider themselves to be competent (Judge, Locke, & Durham, 1997), they may have more intense motivation than those with lower CSEs do to participate in team activities. Judge and Larsen (2001) suggested that individuals with a favorable self-concept may be more likely than those with an unfavorable self-concept to set and pursue work goals. When a team consists of members with more positive CSEs, the team tends to work adaptively toward a common and valued goal, leading to greater team cohesion. Moreover, members in teams with more positive CSEs tend to talk about the team goal openly, to express their motivation and commitment to the goal. Therefore, the aggregation of team CSEs should have a positive relationship with interpersonal team processes.

On the other hand, interpersonal team processes should be positively related to collective voice, as the aim of voice behavior is to improve task accomplishment. As interpersonal team processes reflect team members' commitment to the team goal or tasks, favorable team processes should lead to increase in mean voice behavior in the team, as voicing reflects team members' collective motivation to accomplish the current task. When the whole team is committed to its current tasks and to communication efficiency, voice behavior will emerge more frequently in the team. Thus, we proposed the following hypothesis:

Hypothesis 4: The relationship between the mean core self-evaluations and collective voice of a team will be mediated by interpersonal team processes.

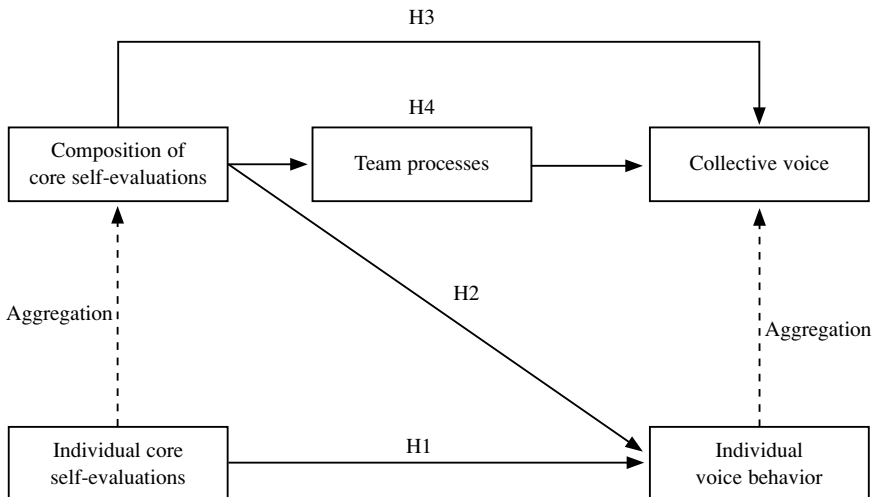


Figure 1. Theoretical model.

Method

Participants

Participants comprised 304 undergraduate and graduate students at two universities in northern China, who were divided into 76 four-person teams. Participants were voluntarily recruited from cafeterias and dormitories on campus. In exchange for their participation, they were paid 50 RMB yuan (around US\$8.00). As we removed the forms completed by two participants from the data analysis because of incomplete responses, we analyzed data from 302 students. Participants were studying for one of three majors, namely, science, social science, or engineering. Their average age was 21.2 years ($SD = 1.54$), and 61% were women.

Procedure

Participants were randomly assigned to the teams, who worked together for 2 hours to perform two tasks that comprised a task modified from a manufacturing game (Zaccaro, Foti, & Kenny, 1991), and a survival simulation exercise adapted from *Winter Survival Simulation* (E. E. Johnson & Johnson, 1986). Half of the teams were asked to complete the manufacturing game first, and the other half were asked to complete the survival simulation first. Participants were asked to read the instructions and complete the measure of core self-evaluations before they started work on the tasks. After they had finished both tasks we asked them to evaluate their team members and the dynamics in their own team.

Measures

Measures used in the study were presented in the Chinese language. We followed the translation–back-translation method set out by Brislin (1986) by involving two researchers who were native speakers in Chinese and fluent in English. One researcher translated the original English scales into Chinese and then the other translated them back into English.

Core self-evaluations. We measured CSEs with 12 items ($\alpha = .79$) adopted from the Core Self-Evaluations Scale developed by Judge et al. (2003). Participants rate the items on a 7-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. A sample item is “When I try, I generally succeed.” The mean of CSEs in each team was calculated to represent the composition of team CSEs.

Individual voice behavior. We measured individual voice behavior using a six-item scale ($\alpha = .80$), adopted from LePine and Van Dyne’s (1998) Voice Behavior Scale. Participants rated their fellow team members, after they had finished both tasks, and respond to the items on a 7-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. A sample item is “This team

member develops and makes recommendations concerning issues that affect this work team.” The aggregation of the other team members’ scores was used to represent the target participant’s voice behavior. The average level of r_{wg} was .86, supporting the aggregation of the scores to the team level (James, Demaree, & Wolf, 1993).

Collective voice. We used a referent shift consensus model of aggregation (Chan, 1998), in which the focus is on team members’ common perceptions of their own team’s dynamics. That is, we used team members’ perceptions of how others in their team expressed voice behavior to aggregate collective voice. The average level of r_{wg} was .83, supporting the aggregation of the individual voice behavior scores across team members. Thus, the mean of individual voice behavior in the team was calculated to indicate team proactive behavior.

Team processes. We measured team processes with a 14-item scale ($\alpha = .81$) adapted from Barry and Stewart (1997). The cohesion subscale comprises 10 items. A sample item is “Members of this team work together well.” Four items are used to measure the subscale of members’ perceptions of open communication. A sample item is “All members have the chance to express opinions.” After they had finished both tasks, participants reported their perceptions of the way that the team had accomplished its work by responding to the items on a 7-point Likert scale ranging from 1 = *a very little extent* to 7 = *a very great extent*. The mean r_{wg} was .86, supporting the aggregation of the processes variables across team members.

Control variables. We computed the mean and standard deviation of members’ age and gender for each team, to control for the effects of surface-level composition variables.

Data Aggregation

According to previous researchers, it is appropriate to aggregate individual scores to the team level when the intraclass correlation coefficient (ICC[1]) is higher than .05 and ICC(2) is higher than .50 (Bliese, 2000; Klein et al., 2000). In this study, results showed that it was acceptable to aggregate individual voice behavior, ICC(1) = .49, ICC(2) = .80, to collective voice. Although the reliability was relatively low to aggregate team processes scores, ICC(2) = .37, the high interrater reliability of this variable, ICC(1) = .13, showed that it could be treated as a team-level construct. In contrast, CSEs, an individual attribute, were found to be an individual-level construct, ICC(1) = .04, ICC(2) = .13. Thus, this variable was used to investigate the composition of CSEs as an individual-level attribute, instead of as a team-level attribute.

Results

Means, standard deviations, and zero-order correlations among variables at the individual and team level are shown in Table 1. Individuals with higher CSEs tended to engage in more voice behavior. Teams with higher mean CSEs tended to have stronger collective voice, and to achieve greater gains in team processes. The relationships between team mean CSEs and team processes were stronger than they were between team mean CSEs and collective voice, suggesting a further test of the mediating effect.

Hypothesis Testing

Because individual voice behavior was significantly different across teams, we used hierarchical linear modeling (HLM; Bryk & Raudenbush, 1992) to test Hypotheses 1 and 2. We tested the effect of individual CSEs on individual voice behavior using individual CSEs scores as Level 1 predictors, and tested the effect of the composition of CSEs using the means and variance in individual scores within teams as Level 2 predictors.

We first ran the null model with individual voice behavior as the dependent variable. Results indicated that it was appropriate to apply HLM procedures ($\chi^2 = 372.13, p < .001$). We then conducted HLM analyses on the main effect of CSEs (Hypothesis 1), and the main effect of team mean CSEs (Hypothesis 2). The focus of our study was not the moderating effects, so the slopes of Level 1 predictors were all fixed as the cross-level moderations were not of interest.

Results of the effect of CSEs on voice behavior at the individual and team levels of analysis are shown in Table 2. Model 2 shows that individual CSEs had a significant effect on individual voice behavior in the team. Hypothesis 1 was thus supported. Model 3 shows that team mean CSEs had a significant positive effect on the team mean of voice behavior, when controlling for the variance in CSEs. Hypothesis 2 was thus supported.

We tested the main and mediating effects at the team level using ordinary least squares regression analysis (see Table 3). In Hypothesis 3 we proposed that team mean CSEs would have a positive relationship with collective voice. In Model 5, the effect of mean CSEs on mean voice behavior was positive and significant when controlling for the variance in CSEs. Hypothesis 3 was thus supported.

Table 1. Means, Standard Deviations, and Correlations at Individual and Team Levels

Variables	M	SD	Individual level			Team level								
			1	2	3	4	5	6	7	8	9	10	11	
Individual level														
1. Gender	0.61	0.49												
2. Age	21.20	1.54	-.24**											
3. Core self-evaluations	4.87	0.74	-.24**	.10										
4. Individual voice behavior	4.02	0.62	.03	-.01	.17**									
Team level														
5. M_{gender}	0.61	0.31												
6. SD_{gender}	0.35	0.26						-.48**						
7. M_{age}	21.19	1.06						-.37**	.36**					
8. SD_{age}	1.08	0.72						.06	.03	.14				
9. M_{CSEs}	4.87	0.39						-.30**	.24*	.17	.14			
10. SD_{CSEs}	0.65	0.31						-.01	-.06	-.06	-.17	-.04		
11. Team collective voice	4.02	0.49						.08	.12	.03	.17	.27*	.11	
12. Team processes	5.80	0.40						.18	.01	-.10	.25*	.43**	.02	.40**

Note. $N = 302$ individuals, $n = 76$ teams. CSEs = core self-evaluations. * $p < .05$, ** $p < .01$.

Table 2. Hierarchical Linear Modeling Results of the Effect of Core Self-Evaluations on Voice Behavior

Variables	Individual voice behavior		
	Model 1	Model 2	Model 3
Intercept	4.02**	4.02**	4.02**
Level 1 controls			
Age	-.03	-.03	-.03
Gender	-.01	.02	.01
Level 2 controls			
M_{age}	.03	.03	.03
SD_{age}	.11†	.10	.10
M_{gender}	.25	.25	.36†
SD_{gender}	.35	.34	.32
Level 1 predictors			
Core self-evaluations		.09*	.07†
Level 2 predictors			
M_{CSEs}			.29*
SD_{CSEs}			.27†
χ^2	345.59**	336.56**	310.95**
Deviance	496.98	498.62	496.40

Note. $N = 302$ individuals, $n = 76$ teams. CSEs = core self-evaluations. Unstandardized estimates are reported. † $p < .10$, * $p < .05$, ** $p < .01$ (two-tailed).

Table 3. Hierarchical Regression Analysis Results

Variables	Collective voice			Team processes	
	Model 4	Model 5	Model 6	Model 7	Model 8
M_{gender}	.17 (.22)	.24 (.22)	.15 (.22)	.19 (.17)	.32** (.15)
SD_{gender}	.20 (.25)	.17 (.24)	.15 (.24)	.13 (.20)	.08 (.17)
M_{age}	.00 (.06)	.00 (.06)	.04 (.06)	-.11 (.05)	-.11 (.04)
SD_{age}	.15 (.08)	.13 (.08)	.08 (.08)	.25* (.06)	.19 (.06)
M_{CSEs}		.29* (.15)	.14 (.17)		.51** (.11)
SD_{CSEs}		.16 (.18)	.15 (.18)		.07 (.13)
Team processes			.29* (.16)		
F	1.18	2.13	2.63	2.18	5.87
Adjusted R^2	.01	.08	.13	.06	.28

Note. $n = 76$. CSEs = core self-evaluations. Standard estimates are reported and standard errors are in parentheses. * $p < .05$, ** $p < .01$ (two-tailed).

In Hypothesis 4 we proposed that mean CSEs would influence team processes, which, in turn, would lead to stronger collective voice. We tested the mediating effect by following Baron and Kenny's (1986) procedure. The results (see Model 8 in Table 3) show that team mean CSEs had a significant positive correlation with team processes when controlling for the variance in CSEs. When we controlled for the effect of team processes (see Model 6 in Table 3), the statistically significant effect of team mean CSEs on collective voice became nonsignificant. The effect of team processes on collective voice was significant, suggesting that the relationship between team mean CSEs and collective voice was fully mediated by team processes. According to Sobel's (1982) test, the reduction in the influence of team mean CSEs reached statistical significance ($Z = 1.98, p < .05$). Hypothesis 4 was thus supported.

Discussion

In this study, our aim was to improve understanding of the antecedents of voice behavior in teams. We have contributed to the literature in two ways: First, we examined how the composition of team members' positive traits is related to the team's collective voice. Second, we investigated the mechanism of this relationship, and extended understanding of voice behavior at the team level.

Our results supported the hypothesized model. As predicted in Hypothesis 1, team members with higher CSEs performed voice behavior more frequently. However, this individual-level relationship was not as strong as the cross-level and team-level relationships. A cross-level relationship was suggested in Hypothesis 2, that is, a team composition of positive members tends to influence the average level of voice behavior. Our results indicated that individuals with higher CSEs are more likely to perform voice behavior in SMTs, but a team composition of positive individuals is even more influential in facilitating voice behavior. Without a positive atmosphere, the likelihood of individuals who are positive performing voice behavior is relatively low. In other words, to improve the emergence of collective voice, the initial composition of the team is quite critical. In Hypothesis 3 we tested the relationship between the composition of CSEs and collective voice. Our results showed that higher mean CSEs significantly improved interpersonal team processes, which facilitated the emergence of collective voice.

The limitations in this study generate recommendations for future research. First, future researchers should explore and examine the effect of team CSEs. Second, future researchers should look at the effect of team CSEs in terms of composing operations other than the mean of team-level voice behavior (e.g., variation, minimum, and maximum values). Morrison et al. (2011) found that group-level voice (i.e., group voice climate) is predictive of individual voice

behavior. In contrast, our results showed that the composition of the teams in terms of personality has an effect on the emergence of both collective voice and individual voice behavior, which is a step forward in explaining how to develop a positive work environment.

Second, Guzzo and Dickson (1996) encouraged other researchers to open the black box between team input and output. We used team interpersonal processes to explain the relationship between CSEs and the emergence of collective voice; however, there are many other team processes and states that may have a role in explaining this relationship.

Third, we conducted our study with Chinese university student participants. When researchers conduct studies with people from different cultural backgrounds, their findings may show that our results cannot be generalized to contexts outside China. It is also likely that Chinese students, who are living with a collectivistic cultural background (Hofstede, 1980), would face more pressure than would Western students with an individualistic cultural background (e.g., North America) when performing voicing or some other proactive behavior to violate the existing norm. Therefore, team members in a Western culture may be even more likely to perform voice behavior in a team context, yielding a stronger collective voice. Finally, we investigated SMTs only in a laboratory setting. Future researchers should examine different types of teams in various workplace settings. In addition, the hypothesized relationship could not be examined at different team development stages in a study with a laboratory design. Team composition, voice, and processes in real-world workplace contexts at multiple points in time can be explored in future research.

References

- Aryee, S., Walumbwa, F. O., Mondejar, R., & Chu, C. W. (2017). Core self-evaluations and employee voice behavior: Test of a dual-motivational pathway. *Journal of Management*, *43*, 946–966. <https://doi.org/b7db>
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173–1182. <https://doi.org/cwx>
- Barrick, M. R., Stewart, G. L., Neubert, M. J., & Mount, M. K. (1998). Relating member ability and personality to work-team processes and team effectiveness. *Journal of Applied Psychology*, *83*, 377–391. <https://doi.org/cnzjw6>
- Barry, B., & Stewart, G. L. (1997). Composition, process, and performance in self-managed groups: The role of personality. *Journal of Applied Psychology*, *82*, 62–78. <https://doi.org/dnpvmw>
- Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior*, *14*, 103–118. <https://doi.org/d9prhw>
- Beal, D. J., Cohen, R. R., Burke, M. J., & McLendon, C. L. (2003). Cohesion and performance in groups: A meta-analytic clarification of construct relations. *Journal of Applied Psychology*, *88*, 989–1004. <https://doi.org/cs7dmm>

- Bell, S. T. (2007). Deep-level composition variables as predictors of team performance: A meta-analysis. *Journal of Applied Psychology, 92*, 595–615. <https://doi.org/ckkxj7>
- Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions* (pp. 349–381). San Francisco, CA: Jossey-Bass.
- Brislin, R. W. (1986). The wording and translation of research instruments. In W. J. Lonner & J. W. Berry (Eds.), *Field methods in cross-cultural research* (pp. 137–164). Newbury Park, CA: Sage.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods*. Newbury Park, CA: Sage.
- Carson, K. D., Baker, D. S., & Lanier, P. A. (2014). The role of individual cultural traits and proactivity in an organizational setting. *Management Research Review, 37*, 348–366. <https://doi.org/b7dd>
- Carver, C. S. (2004). Self-regulation of action and affect. In R. F. Baumeister & K. D. Vohs (Eds.), *Handbook of self-regulation: Research, theory, and applications* (pp. 13–39). New York, NY: Guilford Press.
- 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. <https://doi.org/c66fq5>
- Cohen, S. G., & Bailey, D. E. (1997). What makes teams work: Group effectiveness research from the shop floor to the executive suite. *Journal of Management, 23*, 239–290. <https://doi.org/bhptdj>
- Crant, J. M. (2000). Proactive behavior in organizations. *Journal of Management, 26*, 435–462. <https://doi.org/fw9mcn>
- DeMarree, K. G., Wheeler, S. C., & Petty, R. E. (2005). Priming a new identity: Self-monitoring moderates the effects of nonself primes on self-judgments and behavior. *Journal of Personality and Social Psychology, 89*, 657–671. <https://doi.org/b68rd8>
- Erez, A., & Judge, T. A. (2001). Relationship of core self-evaluations to goal setting, motivation, and performance. *Journal of Applied Psychology, 86*, 1270–1279. <https://doi.org/fk62j5>
- Erkütlu, H. (2012). The impact of organizational culture on the relationship between shared leadership and team proactivity. *Team Performance Management: An International Journal, 18*, 102–119. <https://doi.org/bfsc>
- Evans, C. R., & Dion, K. L. (1991). Group cohesion and performance: A meta-analysis. *Small Group Research, 22*, 175–186. <https://doi.org/c2p3mn>
- Frazier, M. L., & Bowler, W. M. (2015). Voice climate, supervisor undermining, and work outcomes: A group-level examination. *Journal of Management, 41*, 841–863. <https://doi.org/bzx2>
- Frese, M., & Fay, D. (2001). Personal initiative: An active performance concept for work in the 21st century. *Research in Organizational Behavior, 23*, 133–187. <https://doi.org/dbmtmp>
- Goodman, P. S., Ravlin, E., & Schminke, M. (1987). Understanding groups in organizations. In L. Cummings & B. Staw (Eds.), *Research in organizational behavior* (pp. 121–173). Greenwich, CT: JAI Press.
- Grant, A. M., & Ashford, S. J. (2008). The dynamics of proactivity at work. *Research in Organizational Behavior, 28*, 3–34. <https://doi.org/dsc6wm>
- Grant, A. M., Gino, F., & Hofmann, D. A. (2011). Reversing the extraverted leadership advantage: The role of employee proactivity. *Academy of Management Journal, 54*, 528–550. <https://doi.org/cm5hxx>
- Greenberg, J., & Edwards, M. S. (Eds.). (2009). *Voice and silence in organizations*. Bingley, UK: Emerald Group.
- Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance: Positive behavior in uncertain and interdependent contexts. *Academy of Management Journal, 50*, 327–347. <https://doi.org/d8jrf6>

- Guzzo, R. A., & Dickson, M. W. (1996). Teams in organizations: Recent research on performance and effectiveness. *Annual Review of Psychology, 47*, 307–338. <https://doi.org/d68z5v>
- Hackman, J. R., & Katz, N. (2010). Group behavior and performance. In S. T. Fiske, D. T. Gilbert, & G. Lindzey (Eds.), *Handbook of social psychology* (5th ed., pp. 1208–1251). New York, NY: Wiley.
- Haynie, J. J. (2011). Core-self evaluations and team performance: The role of team-member exchange. *Small Group Research, 43*, 315–329. <https://doi.org/fb38ms>
- Hofstede, G. (1980). Motivation, leadership, and organization: Do American theories apply abroad? *Organizational Dynamics, 9*, 42–63. <https://doi.org/d8sndh>
- Humphrey, S. E., Hollenbeck, J. R., Meyer, C. J., & Ilgen, D. R. (2007). Trait configurations in self-managed teams: A conceptual examination of the use of seeding for maximizing and minimizing trait variance in teams. *Journal of Applied Psychology, 92*, 885–892. <https://doi.org/cgdt7r>
- James, L. R., Demaree, R. G., & Wolf, G. (1993). r_{wg} : An assessment of within-group inter-rater agreement. *Journal of Applied Psychology, 78*, 306–309. <https://doi.org/cs7qd7>
- Johnson, E. C., Kristof-Brown, A. L., Van Vianen, A. E., De Pater, I. E., & Klein, M. R. (2003). Expatriate social ties: Personality antecedents and consequences for adjustment. *International Journal of Selection and Assessment, 11*, 277–288. <https://doi.org/fc8wcf>
- Johnson, E. E., & Johnson, G. A. (1986). *Joining together*. New York, NY: Jossey-Bass.
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology, 86*, 80–92. <https://doi.org/dgbhn5>
- Judge, T. A., Bono, J. E., Erez, A., & Locke, E. A. (2005). Core self-evaluations and job and life satisfaction: The role of self-concordance and goal attainment. *Journal of Applied Psychology, 90*, 257–268. <https://doi.org/d5xj26>
- Judge, T. A., Bono, J. E., & Locke, E. A. (2000). Personality and job satisfaction: The mediating role of job characteristics. *Journal of Applied Psychology, 85*, 237–249. <https://doi.org/b99pfn>
- Judge, T. A., Erez, A., & Bono, J. E. (1998). The power of being positive: The relation between positive self-concept and job performance. *Human Performance, 11*, 167–187. <https://doi.org/dbptkr>
- Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2003). The Core Self-Evaluations Scale: Development of a measure. *Personnel Psychology, 56*, 303–331. <https://doi.org/xf5sqz>
- Judge, T. A., & Kammeyer-Mueller, J. D. (2011). Implications of core self-evaluations for a changing organizational context. *Human Resource Management Review, 21*, 331–341. <https://doi.org/dt7mks>
- Judge, T. A., & Larsen, R. J. (2001). Dispositional affect and job satisfaction: A review and theoretical extension. *Organizational Behavior and Human Decision Processes, 86*, 67–98. <https://doi.org/br2hpk>
- Judge, T. A., Locke, E. A., & Durham, C. C. (1997). The dispositional causes of job satisfaction: A core evaluations approach. *Research in Organizational Behavior, 19*, 151–188.
- Klein, K. J., Bliese, P. D., Kozlowski, S. W. J., Dansereau, F., Gavin, M. B., Griffin, M. A., ... Blish, M. C. (2000). Multilevel analytical techniques: Commonalities, differences, and continuing questions. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions* (pp. 513–553). San Francisco, CA: Jossey-Bass.
- Kristof, A. L. (1996). Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology, 49*, 1–49. <https://doi.org/dcjg4k>

- LePine, J. A., Buckman, B. R., Crawford, E. R., & Methot, J. R. (2011). A review of research on personality in teams: Accounting for pathways spanning levels of theory and analysis. *Human Resource Management Review*, *21*, 311–330. <https://doi.org/d5fntc>
- LePine, J. A., Piccolo, R. F., Jackson, C. L., Mathieu, J. E., & Saul, J. R. (2008). A meta-analysis of teamwork processes: Tests of a multidimensional model and relationships with team effectiveness criteria. *Personnel Psychology*, *61*, 273–307. <https://doi.org/d5nxbg9>
- LePine, J. A., & Van Dyne, L. (1998). Predicting voice behavior in work groups. *Journal of Applied Psychology*, *83*, 853–868. <https://doi.org/d8zk8v>
- Lindsley, D. H., Brass, D. J., & Thomas, J. B. (1995). Efficacy-performance spirals: A multilevel perspective. *The Academy of Management Review*, *20*, 645–678. <https://doi.org/d8msd2>
- Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management*, *33*, 321–349. <https://doi.org/fm2gnd>
- Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes. *Academy of Management Review*, *26*, 356–376. <https://doi.org/c3c4v3>
- Mathieu, J. E., Maynard, M. T., Rapp, T., & Gilson, L. (2008). Team effectiveness 1997–2007: A review of recent advancements and a glimpse into the future. *Journal of Management*, *34*, 410–476. <https://doi.org/dgq2c9>
- Mathieu, J. E., Tannenbaum, S. I., Donsbach, J. S., & Alliger, G. M. (2014). A review and integration of team composition models: Moving toward a dynamic and temporal framework. *Journal of Management*, *40*, 130–160. <https://doi.org/q2q>
- McClean, E. J., Burris, E. R., & Detert, J. R. (2013). When does voice lead to exit? It depends on leadership. *Academy of Management Journal*, *56*, 525–548. <https://doi.org/b7dh>
- Morgeson, F. P., & Hofmann, D. A. (1999). The structure and function of collective constructs: Implications for multilevel research and theory development. *Academy of Management Review*, *24*, 249–265. <https://doi.org/fqmgp4>
- Morrison, E. W. (2011). Employee voice behavior: Integration and directions for future research. *Academy of Management Annals*, *5*, 373–412. <https://doi.org/chtgwq>
- Morrison, E. W., Wheeler-Smith, S. L., & Kamdar, D. (2011). Speaking up in groups: A cross-level study of group voice climate and voice. *Journal of Applied Psychology*, *96*, 183–191. <https://doi.org/ffmjdv>
- Oldham, G. R., & Hackman, J. R. (2010). Not what it was and not what it will be: The future of job design research. *Journal of Organizational Behavior*, *31*, 463–479. <https://doi.org/d3rwh9>
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.
- Pack, S., Hemmings, B., & Greenlees, I. (2002). An exploratory study of goal commitment within team sports. *Journal of Sport Sciences*, *20*, 70–71.
- Parker, S. K., Bindl, U. K., & Strauss, K. (2010). Making things happen: A model of proactive motivation. *Journal of Management*, *36*, 827–856. <https://doi.org/d5v6hc>
- Parker, S. K., & Collins, C. G. (2010). Taking stock: Integrating and differentiating multiple proactive behaviors. *Journal of Management*, *36*, 633–662. <https://doi.org/dv8m3k>
- Parker, S. K., Williams, H. M., & Turner, N. (2006). Modeling the antecedents of proactive behavior at work. *Journal of Applied Psychology*, *91*, 636–652. <https://doi.org/b5d75n>
- Podsakoff, N. P., Maynes, T. D., Whiting, S. W., & Podsakoff, P. M. (2015). One (rating) from many (observations): Factors affecting the individual assessment of voice behavior in groups. *Journal of Applied Psychology*, *100*, 1189–1202. <https://doi.org/f7j77c>
- Prenda, K. M., & Lachman, M. E. (2001). Planning for the future: A life management strategy for increasing control and life satisfaction in adulthood. *Psychology and Aging*, *16*, 206–216. <https://doi.org/bx64jf>

- Prewett, M. S., Walvoord, A. A. G., Stilson, F. R. B., Rossi, M. E., & Brannick, M. T. (2009). The team personality–team performance relationship revisited: The impact of criterion choice, pattern of workflow, and method of aggregation. *Human Performance, 22*, 273–296. <https://doi.org/cj73j2>
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology, 13*, 290–312. <https://doi.org/bzh79q>
- Sorrentino, R. M., & Boutillier, R. G. (1975). The effect of quantity and quality of verbal interaction on ratings of leadership ability. *Journal of Experimental Social Psychology, 11*, 403–411. <https://doi.org/d3jnvvn>
- Srivastava, A., Locke, E. A., Judge, T. A., & Adams, J. W. (2010). Core self-evaluations as causes of satisfaction: The mediating role of seeking task complexity. *Journal of Vocational Behavior, 77*, 255–265. <https://doi.org/cms4hq>
- Thomas, J. P., Whitman, D. S., & Viswesvaran, C. (2010). Employee proactivity in organizations: A comparative meta-analysis of emergent proactive constructs. *Journal of Occupational and Organizational Psychology, 83*, 275–300. <https://doi.org/bgz55j>
- Van Dyne, L., Cummings, L. L., & McLean Parks, J. (1995). Extra-role behaviors: In pursuit of construct and definitional clarity (a bridge over muddied waters). In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 17, pp. 215–285). Greenwich, CT: JAI Press.
- Weldon, E., & Weingart, L. R. (1993). Group goals and group performance. *British Journal of Social Psychology, 32*, 307–334. <https://doi.org/brj7fp>
- Williams, H. M., Parker, S. K., & Turner, N. (2010). Proactively performing teams: The role of work design, transformational leadership, and team composition. *Journal of Occupational and Organizational Psychology, 83*, 301–324. <https://doi.org/dhrngs>
- Zaccaro, S. J., Foti, R. J., & Kenny, D. A. (1991). Self-monitoring and trait-based variance in leadership: An investigation of leader flexibility across multiple group situations. *Journal of Applied Psychology, 76*, 308–315. <https://doi.org/fp64fs>
- Zhang, Z., & Peterson, S. J. (2011). Advice networks in teams: The role of transformational leadership and members' core self-evaluations. *Journal of Applied Psychology, 96*, 1004–1017. <https://doi.org/cqh4kt>