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ORIGINAL RESEARCH

Ambidextrous Leadership and Employee Voice Behavior: The Role of Work Motivation and Ambidextrous Culture

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Purpose: In the current competitive environment of increased uncertainty and instability, it is of significance to promote employee voice behavior. To discuss the issue of how to promote employee voice behavior both effectively and reasonably, this study focuses on ambidextrous leadership, which consists of two seemingly opposite yet potentially complementary behaviors—transformational and transactional leadership—and investigates its influence mechanism on employees' voice behavior, using work motivation as a mediator and ambidextrous culture as a moderator.

Methods: Enterprise employees and their direct supervisors from 78 work teams in China were surveyed, and 387 sets of paired data were analyzed using data analysis software, such as HLM, SPSS, and AMOS.

Results: The results reveal that ambidextrous leadership can significantly positively predict employee voice behavior. Employee work motivation plays a partial mediating role in the positive correlation between ambidextrous leadership and voice behavior. Additionally, organizational ambidextrous culture positively moderates the correlation between ambidextrous leadership and the work motivation of employees. The greater the ambidextrous culture of teams is, the stronger the positive correlation between ambidextrous leadership and the work motivation of employees.

Conclusion: Leadership plays an important role in promoting employee voice behavior. Therefore, understanding how ambidextrous leadership style can effectively promote voice behavior is important for companies to utilize the power of their employees to respond quickly to change and drive innovative transformation. This study contributes to existing research by revealing how ambidextrous leadership impact employee voice behavior through work motivation, which provides new evidence for the emerging ambidextrous leadership theory and helps to understand the relationship between employee work motivation and voice behavior more comprehensively; it also identifies organizational ambidextrous culture as organizational context factor which moderate the effect of ambidextrous leadership on work motivation.

Keywords: ambidextrous leadership, employee voice behavior, work motivation, organizational ambidextrous culture

Introduction

With the advent of the VUCA (volatility, uncertainty, complexity, ambiguity) era, technologies and markets change rapidly, and enterprise competition is becoming increasingly fierce. Managers may not be able to fully grasp all the information and problems present in their business process or operation;[1] this has caused the concept of employee voice behavior, which can gather employees' wisdom power and realize information intake from multiple channels, to receive increasing attention.[2] In order to build sustainable competitive advantage, organizations need to make full use of the strengths of employees and actively encourage employees to implement voice behaviors that are useful to organizational development.[3,4] However, contrary to this objective expectation, employees often choose to remain silent at work because of psychological risks, resource pressure, personal gains and losses.[5] Especially in China, where traditional concepts such as "silence is golden" have been passed down for a long time, employees generally associate staying silent with virtues such as modesty, steadiness and respect for others.[6] Therefore, in the Chinese organizational context, how to

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effectively and reasonably motivate employees to implement voice behavior is an important issue that needs to be explored.

The conclusion that leadership is the key factor that influences employees' voice behavior has been confirmed by a large number of empirical studies, which have explored the relationship between many specific single leadership styles, such as paternalistic leadership, inclusive leadership and authentic leadership, and employees' voice behavior.[7–9] However, to date, only a few studies have linked such leadership related factors as "ambidextrous" and "paradoxical" with employee voice behavior,[10–12] and the research conclusions are not comprehensive or rich. The continuous emergence of the management paradox makes it difficult to meet the needs of realizing multiple management goals with a single leadership mode that follows the logical thinking of "either/or".[13–15] Moreover, in the face of complex management practices, it may be difficult for managers to consistently implement a particular leadership style in their decisions, which means that ambidextrous leadership may be prevalent in management practices.[16] Therefore, it is of great theoretical and practical significance to analyze the influence of ambidextrous leadership on employee voice behavior.

The core of ambidextrous leadership lies in the recognition of the objective existence of contradictions in management activities and follows the logic thinking of "both/and".[14] With its inherent logic of contradictory integration, ambidextrous leadership has unique advantages in dealing with opposing elements and multiple management targets,[17] which may provide a new perspective for explaining how to stimulate employee voice behaviors both effectively and reasonably. Ambidextrous leadership is composed of two kinds of leadership styles that seem contradictory but complementary, such as transformational and transactional leadership.[17–19] Mascareño et al argued that a more fine-grained picture can be obtained by differentiating specific work behavior processes when the effectiveness of ambidextrous leadership is considered.[20] As far as employee voice behavior is concerned, it includes a series of activities such as problem identification, idea formation, information collection, evaluation and decision-making.[21,22] According to motivation-work cycle match theory, employees' overall performance is optimal when their motivation matches their work stage.[21] It is not a stretch to infer that intrinsic motivation and extrinsic motivation can exert different effects in the specific activities of voice behavior, so as to optimize employee voice performance. Besides, employee intrinsic motivation and extrinsic motivation can be stimulated by the environmental conditions provided by different leadership styles, eg, transformational and transactional leadership,[23–25] which inspires us to think more about the relationship among ambidextrous leadership, employee work motivation and voice behavior. Thus, this study takes employee work motivation, which includes intrinsic motivation and extrinsic motivation as mediators to investigate its role as a bridge between ambidextrous leadership and employee voice behavior.

In addition, ambidextrous leadership emphasizes that contradictory leadership behaviors should be integrated into a larger behavior system and that a good match between management behaviors and complex situations can be achieved by taking on multiple tasks;[26,27] the paradoxical leadership behaviors that change with the situation may raise employees' doubt and confusion about organizational management style. This provided us with a rare opportunity to assess how the associations identified between leadership and employee motivations as well as behaviors would be moderated by characteristics of the larger organizational context.[28] If the organizational environment can provide clues matching with the leadership style, employees can better understand the leadership behaviors and show the corresponding behavior in line with the organization's expectations.[29] So far, a very small number of studies have claimed the positive effect of ambidextrous leadership on employee voice behavior, they have focused only on mediating variables such as leader identification and the moderating effect of individual-level variable such as cognitive flexibility;[11] however, limited attention has been put on the organizational-level moderating variables. Therefore, inspired by leadership substitution theory, we suggest that a suitable kind of organizational culture can be the "enhancer" of ambidextrous leadership. Considering the duality of ambidextrous leadership in structure and the complexity of its functional process, in order to find and verify the specific organizational culture that enable ambidextrous leadership to play a greater role in stimulating employee work motivations and shaping employees' work behaviors, this study further introduces organizational ambidextrous culture, which combines organizational adaptive culture and organizational consistent culture, as a moderator. The research framework is shown in Figure 1.

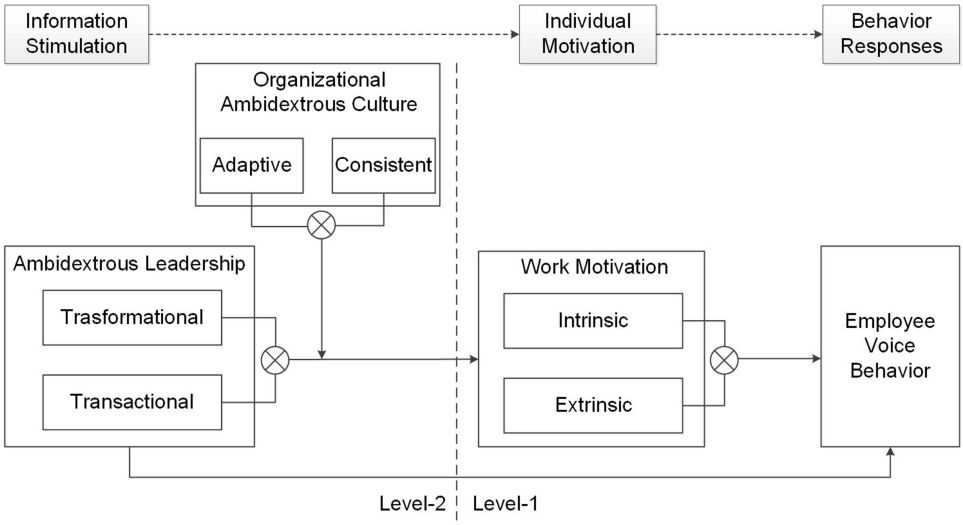

Figure 1 Theoretical model.

Literature Review and Hypothesis Development

Ambidextrous Leadership and Employee Voice Behavior

As early as 2003, Bass et al argued that transformational and transactional leadership are not dualistic structures but rather complementary structures and that a good leader should have both leadership styles. The proposal and development of the concept of ambidextrous leadership is a positive response and a further supplement to this point of view.[17] Transformational leaders have the courage to empower and emphasize mind emancipation, pay attention to pioneering spirits, actively encourage employees to break the constraints of the established framework, stimulate employees' intellectual potential, and guide employees in setting up higher-level life goals.[30] On the one hand, this approach breaks through the drawbacks of traditional organizational hierarchy and upward and downward orders and creates an open and innovative organizational atmosphere.[31] On the other hand, it stimulates employees' initiative consciousness, makes employees internalize organizational goals, and then produces more out-of-role behaviors that are beneficial to the organization.[32] It can be considered that transformational leadership performs well in effectively stimulating employee voice behavior.

Meanwhile, transactional leaders emphasize the idea that rewards and punishments should be used to motivate the realization of work goals and increase the incentives of employees. In essence, this approach affects employees through a fair and immediate exchange.[30] Rewards and punishments have signaling effects.[33] To obtain higher rewards and avoid being punished due to mistakes and deviations, employees may be motivated to put forward ideas that are beneficial to the organization and point out problems that affect organizational efficiency.[23] The trade-off considerations triggered by transactional leadership can play a role in preventing employees from over-advising.

Therefore, transformational leadership provides good conditions for employee voice behavior from the perspective of creating a good voice climate and strengthening employees' voice motivation; at the same time, it can effectively counteract the suppression of employees' independence consciousness, innovative thinking and initiatives caused by the overconservation of transactional leadership; transactional leadership provides a certain degree of motivation for employee voice behavior from the perspective of external incentive and can effectively solve the problems of team turbulence and disorder caused by the overactivism of transformational leadership.[17] Ambidextrous leadership, which combines transformational and transactional leadership, can effectively balance the contradiction and tension between the organization's positive demand for voice behavior and the maintenance of organizational rules and regulations and the pursuit of efficiency, while giving full play to the advantages of these two leadership styles, it can offset their negative effects through synergy and achieve the management effect of "1 + 1 > 2". In general, ambidextrous leadership can not only prevent the solidification of group thinking but also control the deviation and dispersion of group focus; it can not

only stimulate employees to positively perform voice behavior but also ensure the "properness" and "quality" of employees' suggestions and proposal, thereby effectively preventing the occurrence of negative results such as organizational conflict and chaos. In other words, ambidextrous leadership helps to promote employee voice behavior both effectively and reasonably. Based on the above analysis, the following hypothesis is proposed:

H1: Ambidextrous leadership is positively related to employee voice behavior.

Ambidextrous Leadership and Employee Work Motivation

According to the different incentives, work motivation can be divided into intrinsic motivation and extrinsic motivation.[34] Based on self-determination theory and the job demands-resource model, some studies have explained and verified the positive impact of transformational leadership on employee intrinsic motivation.[24,28,35] However, for transactional leadership, research on the relationship between transactional leadership and employees' work motivations is far from sufficient. Ding et al indicated that transactional leadership can inspire employees through extrinsic motivation in China's organizational context, but they did not conduct empirical tests on this proposition.[23] Gagné et al suggested that transactional leadership was related to increased controlled motivation of individual, and in organizations facing a crisis, collective perceptions of transactional leadership were positively related to collective autonomous motivation.[28] In addition, further research on the relationship between ambidextrous leadership and employee work motivation is even rarer.

In regard with the results of some previous studies stated above, this study suggests that transformational leadership helps to satisfy employees' psychological need for competence, autonomy and relatedness, thereby enhancing employee intrinsic motivation.[24,28] Transactional leadership, in the meanwhile, helps to trigger extrinsic motivation. A series of information conveyed by transactional leadership, such as the clear division of work roles, attention to correcting deviation, and strict rewards and punishments, will urge employees to pay more attention to remuneration, recognition of others and other factors related to work results;[36,37] that is, it will promote employees to form a higher degree of extrinsic motivation.

According to organismic integration theory, individual motivation is a continuum ranging from no self-determination to self-determination. Under the influence of the external environment, extrinsic motivation can be internalized.[38] Amabile et al also suggested that intrinsic and extrinsic motivation can promote each other in some cases.[34] It can be considered that intrinsic and extrinsic motivation are not completely opposite bipolar structures and that individuals can perform work behavior under the impetus of some combination of both types of motivations.[39] Thus, this paper further suggests that ambidextrous leadership can coordinate the tension between employee intrinsic and extrinsic motivation, play a synergistic complementary effect, and stimulate the two kinds of motivations at the same time. This means that under ambidextrous leadership, while having a strong desire to work due to the attraction of the work itself, employees also pay attention to external factors such as payment, reward and recognition, which are closely related to the results of their work. Based on the above analysis, this study proposes the following hypothesis:

H2: Ambidextrous leadership is positively related to work motivation (both intrinsic and extrinsic).

The Mediating Effect of Employee Work Motivation

Work motivation is a series of internal and external forces that prompt behaviors related to job performance and determine the form, direction, intensity and duration of these behaviors. The strength of a certain tendency to perform relies on the level of anticipation for a specific outcome and the need for the individual's performance.[40] Most studies have indicated that intrinsic motivation is closely related to positive work outcomes, such as improving performance, promoting organizational citizenship behavior, stimulating creativity, and improving organizational commitment.[41] However, there is no consistent conclusion regarding the effect of extrinsic motivation. Kuvaas et al suggested that extrinsic motivation is always significantly positively associated with negative work outcomes.[41] Gupta indicated that the impact of extrinsic motivation on innovation will produce inconsistent results according to the individual differences of employees, which may have a positive correlation or insignificant effect.[25] Wang and Chang's study based on China's organizational context showed that extrinsic motivation stimulated by organizational incentives contributes to the promotion of employees' innovative behavior.[42] In addition, the relationship between intrinsic motivation and extrinsic

motivation has always been a hot topic in the field of motivation research. Some studies have indicated that with respect to performance, incentives and intrinsic motivation are not necessarily antagonistic and are best considered simultaneously.[39]

As far as employee voice behavior is concerned, as mentioned above, the process of employee voice behavior has several stages.[21] Specifically, from the perspective of identifying problems and formulating recommendations, employees driven by intrinsic motivation will devote more time and energy to their work because of their interest and passion of the work itself;[25] as a result, they gain deep insight into problems at work and actively consider possible improvements,[42] while they are also more willing to put extra effort into the benefit of the team and the organization, thus showing a high level of voice behavior.[24] In terms of risk assessment and decision-making, employees driven by extrinsic motivation will be more concerned with loss aversion and maximization of positive outcomes.[41] On the one hand, keeping silent about potential problems may cause losses to the organization, thus triggering employees' sense of guilt;[43] employees may even have to bear corresponding responsibilities. Therefore, employees driven by extrinsic motivation are likely to actively offer suggestions to prevent losses under the premise of ensuring the effectiveness of their voice behavior. On the other hand, taking into account that the employees who perform voice behavior may acquire higher social status and better performance evaluation,[44] employees with a high level of extrinsic motivation are likely to actively engage in voice behavior to show their personal ability after carefully weighing the pros and cons to obtain material rewards and team recognition.

According to motivation-work cycle match theory, when work motivations match with work activities, employee behavior performance can be optimal.[21] As individuals identify problems or generate possible solutions, more inward engagement without external distractions will help generate more creative ideas. Once an individual has come up with a possible solution, incremental external incentives can facilitate the implementation of the solution.[45] In the case of voice behavior, intrinsic motivation will enable individuals to identify problems in their work and generate constructive ideas, while extrinsic motivation will help ensure that individuals express these ideas and information in a timely and accurate manner, and the synergistic effect of these two motivations will ultimately make the optimal employee voice behavior come true. Based on this, the following hypothesis is proposed:

H3: Work motivation (both intrinsic and extrinsic) is positively related to employee voice behavior.

Based on work motivation theories, some studies have tried to explain the process of leaders' exerting influence on employees as the process in which leaders influence employees' intrinsic motivation or extrinsic motivation through different management styles and then urge them to make different decisions and show different behaviors and performance.[23–25] An ambidextrous leader is capable of switching between transformational and transactional leadership, as per the need and situation at hand.[27] The use of various styles of leadership can meet the different psychological needs of employees, thus motivating them to generate both intrinsic and extrinsic motivation. Since decision-making and motivation are intertwined and influence each other,[46] the ultimate phrasing of the voice choice is influenced by motivation.

Amabile indicated that extrinsic motivation can promote intrinsic motivation when external payments, feedback and rewards are informative rather than controlling.[45] Transactional leadership emphasizes that employees should be paid and rewarded according to their work performance and focuses on providing regular feedback to employees to correct the work deviation.[47] Instead of controlling employees' work attitudes and behaviors, transactional leadership style provides a large amount of information that is conducive to improving employees' ability,[33] which increases the possibility of employees being driven by both intrinsic and extrinsic motivation simultaneously at work. Therefore, this study argues that employee extrinsic motivation stimulated by transactional leadership and their intrinsic motivation provoked by transformational leadership can coexist and act together to facilitate the generation of positive work behaviors. To sum up, the following hypothesis is proposed:

H4: Work motivation (both intrinsic and extrinsic) mediates the relationship between ambidextrous leadership and employee voice behavior.

The Moderating Effect of Organizational Ambidextrous Culture

Organizational ambidextrous culture originates from the exploration of situational ambidexterity.[48] Gibson and Birkinshaw pointed out that the contradiction of corporate strategy implementation cannot be completely solved by

institutional design alone; they also posited that the ambidextrous-thinking ability of employees should be cultivated and that a high-ambidextrous organizational context should be created.[26] As far as organizational culture is concerned, the increasingly complex external environment and the diverse design of internal systems have gradually led to its dualistic characteristics.[49] In view of the inevitability and necessity of building an ambidextrous culture that can meet the dual needs of enterprises,[50] based on the consistency and adaptation model positioned in the competition values framework (CVF) revised by Fey and Denison and the connotation of organizational context ambidexterity,[26] Xu and Gu constructed the conception of organizational ambidextrous culture in the Chinese organizational context.[51] They defined ambidextrous culture as a set of values and norms that combines an emphasis on the external flexibility of adaptation with an emphasis on the internal integration of consistency, which consisting of adaptive culture and consistent culture. This conception has been quoted and used for reference by many Chinese scholars since it was put forward.[17]

From the perspective of leadership substitute, the matching organizational culture can be the "enhancer" of leadership effectiveness, while the improper organizational culture may weaken the effect of leadership.[52] For example, existing research has found that collaborative culture reinforces the effect of transformational leadership on employees' radical innovation and incremental innovation;[53] it has also been noted that employees influenced by collaborative culture agree to each other and work with the same mindset, which can weaken the positive effect of entrepreneurial Leadership on creativity.[54] Specifically, when employees deem that the organizational culture is consistent with the information conveyed by the leadership behavior, they will enhance their trust in this leadership behavior and be willing to wholeheartedly accept the influence of the leadership behavior on themselves; otherwise, they will doubt the legitimacy of the leadership behavior and then generate a resistance to the leaders.[29]

In this study, the organizational adaptive culture emphasizes paying attention to customers, taking risks and learning from experience; it reflects the support of the work team regarding employees making innovations and changes, as well as cultivating employees' cognitive ability,[51] which is consistent with the information conveyed by transformational leaders. Meanwhile, the organizational consistent culture emphasizes the high degree of internal consistency and good coordination and integration within the organization. This emphasis on rules and systems highly matches the message conveyed by transactional leadership. Thus, the organizational adaptive culture can be the "enhancer" of transformational leadership, it will strengthen the stimulating effect of transformational leadership on employee intrinsic motivation by improving employees' recognition and acceptance of transformational leadership style. Also, the organizational consistent culture has the same enhancing effect on transactional leadership and employee extrinsic motivation. For ambidextrous leadership, when the organization can simultaneously create both adaptive and consistent culture, that is, the establishment of a high-level ambidextrous culture, then employees can better understand the contradictions brought about by ambidextrous leadership in organizational management; then, they can actively look for the internal coordination and consistency between seemingly opposite elements to further enhance both their intrinsic motivation and extrinsic motivation. Based on the above analysis, the following hypothesis is proposed:

H5: Organizational ambidextrous culture strengthens the positive relationship between ambidextrous leadership and work motivation (both intrinsic and extrinsic).

Methods

Sample and Data Collection

Through the relationship networks of the members of our research group, we contacted 28 companies to obtain survey samples. When selecting samples, we considered the randomness of region and industry and the availability of data. We got in touch with the contacts of the 28 companies and asked about their company size, the number of work teams. In this current study where we have a total of 52 items for employees, we followed a variable to sample ratio of 8:1 approach,[55] which implies that an employee sample size of 416 could have been enough for this survey analysis. Since the average work team size for these 28 companies is 4.42, we needed to survey at least 94 work teams to obtain a sample of 416 employees. We selected 94 work teams from these 28 companies using a simple random sampling technique.

During the period from September to December 2018, we contacted and surveyed 94 working teams in Jiangsu, Hubei, Zhejiang, Shanghai and other provinces of China after obtaining consent from companies to participate in the

study. We initially distributed the questionnaire to 94 team leaders and 432 team members and received paired data from 78 team leaders (response rate: 82.98%) and 387 team members (response rate: 84.31%). We obtained a valid sample of only 387 employees because of some inevitable non-response bias in social surveys,[56] and we filtered out invalid questionnaires that were clearly not filled out carefully. Sample suggestions for the variable to item ratio include 5:1, 8:1, 10:1, and even 20:1. 387 employee sample data exceeded the 5:1 ratio (52 items for employees), and the adequacy of sample size might be evaluated as good (>300) roughly,[57] so the use of these data for subsequent statistical analysis was sufficiently representative and reliable.[58] We mailed the printed Employee-Questionnaire and Leader-Questionnaire to the contacts. In Leader-Questionnaire, we invited team leaders to rate each subordinates' voice behavior; in Employee-Questionnaire, we asked subordinates to rate their perceived ambidextrous leadership style and organizational ambidextrous culture, and report their work motivation. Each questionnaire was provided with a sealable envelope, and participants can seal the questionnaire themselves after filling in it anonymously. Both the Leader-Questionnaire and the Employee-Questionnaire were marked with the employee's code name. For example, there are three subjects in Team 1 with employee codes 0101, 0102 and 0103. Taking the employee with code 0101 as an example, the leader needs to fill out the Leader-Questionnaire labeled 0101 to rate the employee's voice behavior, while the Employee-Questionnaires labeled 0101 will be distributed to the employee to fill out. By matching the employees' codes marked on the questionnaires, we paired the data accurately. The contacts helped to number, distribute and collect the questionnaires under our guidance.

For the statistical characteristics of the sample, the average team size of 78 work teams was 4.96 members; a total of 44 work teams belonged to private enterprises, accounting for 56.41% of the sample. In the sample of team leaders, males (62.82%) outnumbered females (37.18%), while the gender distribution of the team members was relatively balanced (male 47.80%, female 52.20%). In terms of age, the largest proportion of team leaders reported being between 36–40 years old (35.90%), which was older than the largest proportion of the team members, which was reported as 26–30 years old (36.43%). The proportion of highly educated team leaders was higher than that of team members, while the educational background of the team members was more widely distributed than that of the team leaders, ranging from high school education or below to a master's degree or above. Overall, our sample is well representative.

Measures

To avoid the distortion of the measures caused by the respondents choosing too many intermediate values due to their traditional compromise tendency, all the scales were rated on a 6-point Likert scale ranging from 1 (= strongly disagree) to 6 (= strongly agree), with reference to the methodology of some existing studies.[59–61] In addition, the respondents' genders, age, education, working years, the nature of the business were added to the survey as control variables.

Ambidextrous Leadership

The scale developed by Bass and Avolio was adopted in this study.[30] There were 16-items for transformational leadership and 8-items for transactional leadership. The participants rated their respective leader's transformational and transactional leadership. The Cronbach's α value of transformational and transactional leadership were 0.939 and 0.910, respectively. The product of the mean scores of transformational leadership and transactional leadership was used to measure ambidextrous leadership in this study. In a statistical sense, the interaction term represents the additional influence on the dependent variable when two variables coexist, such as the additional effect caused by the fusion, balance, or coordination between the two ambidextrous elements. Besides, this kind of measurement method of product term is also a common way of relevant studies.[17,19,62]

Employee Voice Behavior

The scale developed by Dyne and Lepine was adopted in this study.[63] There were 6-items in one dimension. The team leader rated the voice behavior of each employee on his work team. The Cronbach's α value was 0.924.

Employee Work Motivation

The work motivation scale developed by Amabile et al was adopted in this study.[34] There were 6-items for intrinsic motivation and 6-items for extrinsic motivation. The participants self-rated their work motivations. The Cronbach's α values

of intrinsic motivation and extrinsic motivation were 0.905 and 0.876, respectively. By the same token, the product of the mean scores of intrinsic motivation and extrinsic motivation was used to measure work motivation in this study.

Organizational Ambidextrous Culture

The scale developed by Chinese scholar Xu and Gu based on the relatively mature Organizational Culture Scale developed by other scholars was adopted.[51] There were 6-items for organizational adaptive culture and 6-items for organizational consistent culture. The participants rated the culture of their organization. The Cronbach's α values of organizational adaptive culture and organizational consistent culture were 0.923 and 0.880, respectively. By the same token, the product of the mean scores of adaptive culture and consistent culture was used to measure organizational ambidextrous culture.

Results

Common Method Bias Test

Although paired data were collected in the survey to control the common methodological bias, we still performed a common method bias test on the sample data. First, we performed Harman's single factor analysis and found that more than one factor was extracted and that the explanation of variance of the first factor was only 32.88%. Second, we constructed a single factor structural equation model with all measured items and found that the fitting result was far from ideal (χ2/df=6.460, RMSEA=0.119, IFI=0.658, CFI=0.657, TLI=0.629). It was thus considered that the common method bias of the sample data was not severe and that further testing and analysis could be performed.

Team-Level Data Aggregation Test

The aggregation test was conducted by calculating Rwg, ICC (1), and ICC (2) in accordance with the prevailing practice. Transformational leadership, transactional leadership, organizational adaptive culture, and organizational consistent culture were used as level-2 variables in this study, and the RWG of these four variables were equal to 0.86, 0.89, 0.95, and 0.96, respectively; ICC(1) were equal to 0.37, 0.44, 0.54, and 0.43, respectively; and ICC(2) were equal to 0.74, 0.80, 0.85, and 0.79, respectively. Each aggregation testing index of the four variables reached the critical value (Rwg>0.7, ICC(1)>0.12, ICC(2)>0.7), indicating that it was acceptable to aggregate the individual-level data into team-level data.

Confirmatory Factor Analysis

To assess the distinctiveness of the 4 constructs in this study, namely ambidextrous leadership, employee voice behavior, work motivation and organizational ambidextrous culture, we ran confirmatory factor analyses. As shown in Table 1, among all the nested models, the 4-factor model presented the best fitting degree (χ2=1563.468, df=644, χ2/df=2.428,

Table 1 The Results of Confirmatory Factor Analysis

Models	χ^2	df	χ^2/df	RMSEA	IFI	CFI	TLI
1-Factor: AL+WM+EVB+OAC	4198.853	650	6.460	0.119	0.658	0.657	0.629
2-Factor: AL+WM, EVB+OAC	4041.773	649	6.228	0.116	0.673	0.672	0.644
3-Factor: AL+ OAC, WM, EVB	3129.914	647	4.838	0.100	0.761	0.760	0.739
3-Factor: AL+WM, EVB+OAC	2285.664	647	3.533	0.081	0.842	0.841	0.828
3-Factor: AL+WM, EVB, OAC	1797.889	647	2.779	0.068	0.889	0.889	0.879
4-Factor: AL, OAC, WM, EVB	1563.468	644	2.428	0.061	0.912	0.911	0.903

Abbreviations: AL, ambidextrous leadership; WM, work motivation; EVB, employee voice behavior; OAC, organizational ambidextrous culture.

RMSEA=0.061, IFI=0.912, CFI=0.911, TLI=0.903), which indicated that the constructs' discriminant validity of the hypothesized model was good.

Descriptive Statistical Analysis

The means, standard deviations, and correlation coefficients of each variable are shown in Table 2. As seen from the data in the table, work motivation is positively correlated with employee voice behavior ($r=0.590$, $p<0.01$), which provides preliminary support for the hypotheses test.

Hypothesis Analysis

The Main Effect of Ambidextrous Leadership on Employee Voice Behavior

Several cross-level models were constructed and analyzed with HLM 6.08. The results are shown in Table 3. First, a null model (Model 1) with no predictive factor for employee voice behavior was established; ICC(1)=0.456, which suggested that it was necessary to introduce level-2 predictors. Second, Model 2 was established, the result showed that ambidextrous leadership significantly positively predicted employee voice behavior ($\gamma01=0.096$, $p<0.001$); thus, Hypothesis H1 was supported.

The Mediation of Work Motivations

As shown in Table 3, first, null model was established for employee work motivation (Model 5) to figure out its respective proportion of between-group variance. Second, according to Model 6, ambidextrous leadership can significantly positively predict employee work motivation ($\gamma01=0.640$, $p<0.001$); thus, Hypothesis H2 was supported. Third, according to Model 3, work motivation can significantly positively predict voice behavior ($\gamma10=0.060$, $p<0.001$); thus, Hypothesis H3 was supported. Finally, as shown in Model 4, to distinguish the within-group variation and between-group variation of the mediator, group mean centering was applied to work motivation, and the group mean value was added into the intercept equation of level-2. The result indicated that both the within-group effect ($\gamma10=0.053$, $p<0.001$) and the between-group effect ($\gamma01=0.078$, $p<0.001$) of work motivation on voice behavior were significant, and ambidextrous leadership still had a significant positive effect on employee voice behavior ($\gamma01=0.046$, $p<0.05$), while the influence

Table 2 The Means, Standard Deviations, and Correlations Between the Variables

Variables		M	SD	1	2	3	4	5	6
Level-1	1.Gender	1.522	0.500	-					
	2.Age	3.251	1.192	−0.020	-				
	3.Education	2.749	0.735	−0.066	−0.120*	-			
	4.Working years	2.806	1.539	−0.040	0.484**	−0.119*	-		
	5.WM	23.135	6.655	0.007	−0.066	−0.058	−0.131*	-	
	6.EVB	4.592	1.000	0.014	−0.074	−0.077	−0.037	0.590**	-
Level-2	1.Leader gender	1.372	0.486	-					
	2.Leader age	3.410	1.156	0.280*	-				
	3.Leader education	3.090	0.563	−0.124	−0.037	-			
	4.Team size	4.962	1.025	−0.049	0.068	0.074	-		
	5.AL	20.271	5.429	0.053	−0.206	0.172	0.195	-	
	6.OAC	24.793	4.895	−0.084	0.021	−0.180	0.181	0.239*	-

Notes: N=387. *p < 0.05, **p < 0.01.
Abbreviations: WM, work motivation; EVB, employee voice behavior; AL, ambidextrous leadership; OAC, organizational ambidextrous culture.

Table 3 The Results of Cross-Level Regression Analysis

Variables		EVB				WM		
		Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Intercept		3.766***	2.799***	3.755***	2.610***	11.925*	5.275	8.073*
Control variables	Individual Level							
	Gender	−0.077	−0.096	−0.028	−0.025	−0.546	−0.387	−0.233
	Age	0.012	−0.008	0.002	−0.003	0.029	0.089	0.065
	Education level	−0.072	−0.043	−0.031	−0.004	−0.503	−0.254	−0.268
	Working years	−0.024	−0.007	0.008	0.020	−0.427	−0.312	−0.299
	Team Level							
	Gender of the leader	0.577**	0.331*	0.266*	0.176	2.977*	1.152	0.784
	Age of the leader	−0.190*	−0.070	−0.058	−0.027	−1.013	−0.429	−0.302
	Education of the leader	0.223	0.035	−0.105	−0.136	2.618*	1.355*	1.099*
	Team size	0.066	−0.035	−0.049	−0.092	1.125**	0.453	0.477*
Level-1 predictor (γ10)	WM			0.060***	0.053***			
Level-2 predictor (γ01)	AL		0.096***		0.046*		0.640***	0.670***
	Group mean of WM				0.078***			
	OAC							−0.116
Interactive item (γ_{11})	AL* OAC							0.439*
Within-group variance σ2		0.471	0.473	0.331	0.319	25.288	24.611	24.353
Between-group variance τ_{00}		0.395*	0.436*	1.004**	0.507***	20.771**	29.389**	28.169***

Notes: N(employee)=387, N(leader)=78; All coefficients are estimates of fixed effects (γ) under robust standard error. σ^2 is the residual of level 1, and τ_{00} is the intercept residual of level 2. ***: $p<0.001$, **: $p<0.01$, *: $p<0.05$.

coefficient was significantly decreased compared to that in Model 2. Therefore, it can be concluded that work motivation can partially mediate the positive influence of ambidextrous leadership on employee voice behavior.

Considering the robustness of the results, the Monte Carlo method was used to further verify the significance of the mediating effect. The results showed that the 95% confidence interval (CI) of the indirect effect of work motivation was [0.024, 0.079]. The results indicating that the mediating effects of work motivation were significant. Thus, Hypothesis H4 was supported.

The Moderation of Team Ambidextrous Cultures

The interaction item of ambidextrous leadership and organizational ambidextrous culture was introduced into the cross-level model, as shown in Model 7 in Table 3. The results showed that the interaction item can significantly positively predict work motivation (γ11=0.439, p<0.05), indicating that organizational ambidextrous culture can positively moderate the positive effect of ambidextrous leadership on work motivation; thus, Hypothesis H5 was supported.

The simple slope test of Aiken et al (1991) was used to plot the moderating effect. Moderation effect diagrams were drawn to further explain the moderating effect. As shown in Figure 2, the regression line of the group with high organizational ambidextrous culture is steeper, indicating that when the organizational ambidextrous culture level is higher, ambidextrous leadership can promote employee work motivation to a greater extent.

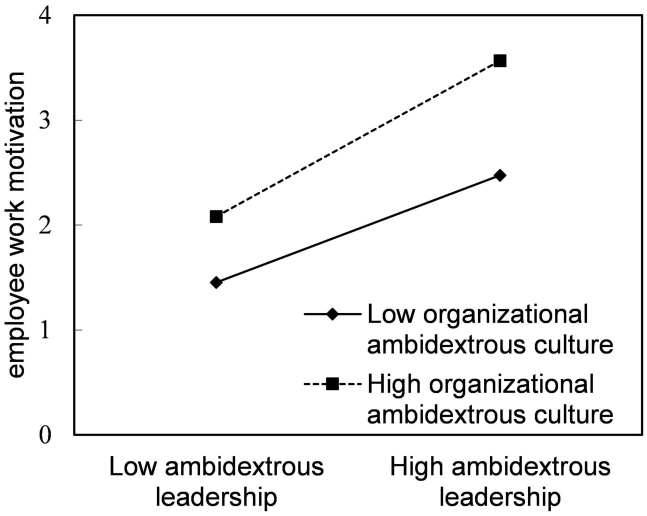

Figure 2 Moderating effect of organizational ambidextrous culture.

Discussion

Using sample data from Chinese companies, we first found that ambidextrous leadership, which combines transformational and transactional leadership, can significantly promote employee voice behavior. As existing research has shown, transformational leadership can motivate employees to implement voice behavior more frequently.[24,32] Meanwhile, the findings of Jia et al on Chinese manufacturing companies shows that transactional leadership also has positive impact on employees' voice behavior.[64] The effectiveness of transactional leadership may vary significantly from country to country.[33] China has a long tradition of hierarchical organizational culture. The influence of bureaucracy is still deep-rooted. Most employees have strong self-protection motivation, as well as a low tolerance for uncertainty, and they prefer a work environment and management style with specific instructions.[42] Therefore, contingent rewards and active management by exception from transactional leaders can help clarify the direction of voice for employees and convey information regarding the rewards they might be given for their voice behavior. Thus, under the influence of the synergy of transformational leadership and transactional leadership, employees will perform more reasonable and effective voice behaviors more frequently, that is to say, ambidextrous leadership helps employees to better perform voice behavior.

Second, this study verified the mediating role of work motivation. Transformational leadership can enhance employee intrinsic motivation;[65] this improvement of intrinsic motivation is conducive to identifying problems in the organization, creating suggestions and ultimately promoting voice behavior. While transactional leadership provides crucial contextual support for the formation of employee extrinsic motivation; that is, the contingent reward emphasized by transactional leadership is strongly consistent with the fact that employees with extrinsic motivation are motivated by external factors such as reward and payment.[47] It can be considered that extrinsic motivation is a proximal variable of transactional leadership that acts on employees. Influenced by extrinsic motivation and given the self-interest orientation of voice behavior, employees will actively implement voice engagement while ensuring the quality of their voice. Under the role of ambidextrous leadership, both the intrinsic and extrinsic motivation of employees can be better stimulated and actively performed, such as implementing voice behavior while fully considering the possible results and weighing the pros and cons, and ultimately promoting the generation and development of voice behavior both effectively and reasonably.

Finally, this study verified the positive moderating role of organizational ambidextrous culture in the relationship between ambidextrous leadership and employee work motivation. What kind of culture and climate a team forms determines how individuals who are affected by environmental factors such as leadership think and perceive regarding some aspects of the environment and how they make corresponding behavioral responses.[66] Zheng et al found that when transformational leadership is highly aligned with organizational culture,[67] it can have a greater impact on employees (eg, further promoting employee innovation behavior). Employees interpret events at work according to some hints obtained

from the working environment, they form corresponding motivations, and they understand the expectations of their behaviors and the corresponding outcomes.[68] When the information conveyed by the leadership style and organizational culture is consistent, the role of leadership on employees is more effective.

Theoretical Implications

First, this study enriches the research on the mechanisms of ambidextrous leadership effects on employee voice behavior. Most of the previous studies have mainly followed the fixed study mode of clarifying the relationship between an ideal single leadership style and employee voice behavior.[8,9] This study focused on both transformational and transactional leadership. Transformational leadership can be a double-edged sword for employee voice behavior.[8,31] As for transactional leadership, whether it can positively promote or negatively inhibit employees' positive behaviors (eg, innovation behavior, voice behavior, etc.), the consensus also has yet to be reached.[33] In fact, there are many studies suggest that the combination of transformational and transactional leadership can not only give full play to their respective advantages but also offset each other's negative effects through synergy and seek better development through complementary effects.[17,18] Considering that the conventionality and rationality of transformational and transactional leadership as the components of ambidextrous leadership as well as the relationship between them and employee voice behavior remain to be explained and clarified, this study focuses on transformational and transactional leadership and explores the important impact of ambidextrous leadership that combines the two leadership styles on employee voice behavior, which is a valuable exploration of the emerging ambidextrous leadership theory. It also enriches the research on the incentive mechanism of employee voice behavior.

Second, this study complements previous approaches to motivating employee voice behavior through intrinsic means by tapping into the intrinsic and extrinsic motivational patterns of ambidextrous leadership. Previous studies have focused more on the altruistic orientation of employee voice behavior and provided more discussed about the relationship between intrinsic motivation and employee voice behavior,[24,32] while ignoring the possibility of employees using voice engagement as a means to protect or obtain worthy resources. Voice is a combination of altruistic and self-interest orientations, and these two orientations complement each other.[69] In response to the issue of how to promote employee voice behavior both effectively and reasonably in management practice, this study provides an explanation from the perspective of work motivation. The concept of work motivation combining intrinsic motivation and extrinsic motivation is included in the theoretical model, which is helpful to understand the motivational mechanism of voice behavior deeply and comprehensively.

Third, this study proposes new boundary conditions regarding ambidextrous leadership styles affecting employee work motivation, verified that organizational ambidextrous culture is the "enhancer" of ambidextrous leadership. An employee's understanding of leadership behavior takes into account the overall environmental conditions of the organization and the work team. Team culture, which is regarded as a shared set of values and behavior norms of the team, provides a corresponding context for the interaction between leaders and employees.[67] Employees' judgment on the consistency of team culture and leadership behavior determines the degree of influence of leadership behavior on employees.[29] Among the few studies that focused on the mechanism of ambidextrous leadership on employee voice behavior, Peng et al explored the mediating role of leader identification and the moderating role of cognitive flexibility at the individual-level.[11] The current study conducted cross-level research that introduced organizational ambidextrous culture at the organizational level as a moderating variable. This is a positive response to the view advocated by Porter and McLaughlin that the influence of context on leadership effectiveness should be given more attention,[70] it is also new empirical evidence for the leadership substitutes theory.

Practical Implications

This study puts forward the following practical enlightenments.

In management practice, leaders should attach importance to the effectiveness of ambidextrous leadership in coping with contradictory elements in the organization. On the one hand, leaders should try their best to understand the contradictory elements in organizational management, actively seek the inner consistency of the opposing elements, and constantly improve the ability of ambidextrous thinking and paradox cognition. On the other hand, they should

improve both their transformational leadership- and transactional leadership-related skills, and strengthen their understanding of the synergistic value of the two leadership styles to be accurate in choosing a reasonable way to carry out their management activities in different management situations.

The development of leadership style and the creation of organizational culture represent two different forms of management. Understanding the laws and synergistic mechanisms of the two on the motivations and behaviors of individual employees will bring certain inspiration to the management practice of enterprises. Enterprises should help employees form ambidextrous thinking and improve their acceptance of paradoxical elements by actively establishing an ambidextrous culture that includes a team adaptive culture and a team consistent culture and creating an inclusive and diverse working climate. On the one hand, this approach helps employees adapt to the ambidextrous leadership style of leaders; on the other hand, it can promote employees to form a self-driving system consisting of both intrinsic motivation and external motivation under the influence of ambidextrous leadership to facilitate the realization of flexible motivation conversion in the face of complex work situations and finally make employees perform higher-level and higher-quality voice behavior. Employees should dare to break the inherent thinking related to the tendency to maintain consistency and accept the driving effects of both intrinsic motivation and external motivation on work behaviors.

Limitations and Future Research Directions

First, considering that transactional leadership is a leadership style that often applied to management practice in China and more research is needed;[33] as well as the effectiveness of transformational and transactional leadership in employees' work motivations and behaviors needs to be further clarified; also, many scholars have studied these two leadership styles as the constituent elements of ambidextrous leadership;[18,19] this study focused on transformational and transactional leadership when discussing ambidextrous leadership. Future studies should try to explore the effect of ambidextrous leadership from different perspectives (eg, opening and closing leadership) or construct a new definition of ambidextrous leadership based on research context. Second, this study has perfected the research design to the utmost extent when conditions permit, and collected leader-employee paired data, unfortunately, due to the constraints of objective conditions, only a cross-sectional survey was completed. If conditions permit, future research should design a longitudinal research plan to conduct a long-term follow-up survey to further analyze the role and affecting rule of ambidextrous leadership in the context evolution. Third, the measure methods of ambidextrous leadership, work motivation, and organizational ambidextrous culture need to be optimized. Although these methods are general in relevant studies, the universality and comprehensiveness of this kind of measuring method still need to be considered. Future studies should deeply analyze the concept development and theoretical basis of these variables and try to develop independent scales that can better match the organizational context.

Conclusion

How to effectively and reasonably motivate employee voice behavior is an important issue that enterprise managers need to face and deal with; it is also one of the balance problems that scholars continue to pay attention to and strive to solve. Based on the motivation-work cycle match theory and the leadership substitution theory, this study reveals the antecedents of employee voice behavior from the perspective of ambidextrous leadership and work motivation, offering practical insight into the mechanism of ambidextrous leadership on employee voice behavior.The results underpin a more salient impact of ambidextrous leadership on employee voice behavior via employee work motivation under a high organizational ambidextrous culture. As such, the initial findings of this study highlight that the development of ambidextrous leadership is necessary for promoting employees' positive voice behaviors. This study provides followers with the cues regarding positive impact of ambidextrous leadership, advocates followers to explore the effects of ambidextrous leadership on employees' both positive and negative work behaviors, and recommends that organizations build an ambidextrous culture to enhance employees' intrinsic and extrinsic motivation and voice behavior for the steady development of the enterprise and employees' career growth.

Ethics Statement

In carrying out this research work, the Ethical Code of Conduct of American Psychological Association (APA) was complied with. A cover letter suggesting the willingness of respondents' participation and confidentiality of their responses were given to respondents after we had taken permission from the board of directors. Participation was voluntary and respondents were free to quit at any point in time. Informed consent was obtained from all respondents. Also, we have followed the exact course of actions concerning dealing with humans in research and fulfilled the Helsinki Declaration on informed consent and human rights. This research work was supervised by a professor from Jiangsu University and the study was approved by the Institutional Review Board of Jiangsu University.

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Disclosure

The authors report no conflicts of interest in this work.

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