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Outcome favorability in the link between leader–member exchange and organizational citizenship behavior: Procedural fairness climate matters

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ABSTRACT

The study developed an integrated model of the relationship among leader–member exchange (LMX), outcome favorability, procedural fairness climate and employee organizational citizenship behavior (OCB). Using three-phrase multilevel data from multiple sources collected from 238 employees working with 42 supervisors at manufacturing firms in China, we found that (1) LMX was positively related to outcome favorability and OCB, (2) procedural fairness climate moderated the relationship between outcome favorability and OCB, and (3) the indirect effect of LMX on OCB (via outcome favorability) was stronger when procedural fairness climate was high rather than low. The study provides insight on the LMX–OCB relationship and the integration of LMX and fairness research.

1. Introduction

As dyadic relationships characterized by trust, liking, open communication, and information sharing between supervisors and their employees, leader–member exchange (LMX) has shown a significant effect on organizational citizenship behavior (OCB) in the literature (for meta-analysis, see Ilies, Nahrgang, & Morgeson, 2007; Podsakoff, MacKenzie, Paine, & Bachrach, 2000). Despite the considerable efforts in probing into LMX–OCB relationship, what is missing is why and under what circumstances LMX affects OCB (Chen, Lam, & Zhong, 2007; Liden, Sparrowe, & Wayne, 1997). More work is necessary to explore the intervening processes whereby a high-quality LMX relationship influences employee citizenship behavior (Walumbwa, Cropanzano, & Goldman, 2011). We thus attempt to extend the earlier work (e.g., Ilies et al., 2007) by investigating the mechanisms through which LMX affects OCB.

One research effort that explicates the mechanism through which LMX affects OCB is to explore the mediating effects. LMX relationships render social exchange relationship between employees and their supervisors (Dulebohn, Bommer, & Liden, 2012). Social exchange involves the exchange of both economic and social–emotional resources (Shore, Coyle-Shapiro, Chen, & Tetrick, 2009; Shore, Tetrick, Lynch, & Barksdale, 2006). Unfortunately, the major weakness in the literature is that the research places unbalanced emphasis on social–emotional exchange, the intangible and symbolic resources exchanged between the supervisor and employees. Specifically, the stream of research highlights the impact of high-quality LMX on such social–emotional resources as trust, affective attachment and obligations toward supervisors (Liden et al., 1997; Walumbwa et al., 2011). For example, Walumbwa et al. (2011) found that employee commitment to their supervisors mediates the impact of LMX on employee OCB. Surprisingly, there has been little research exploring more tangible and concrete resource exchange, such as exchange of economic resources. In hierarchically based relationships supervisors control the resource allocation decisions. Given that

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supervisors develop relationships of varying quality with different employees (Graen & Uhl-Bien, 1995), they may differentiate in the resource allocation. In high-quality relationships, employees receive many benefits and privileges that are not afforded to others (Roch & Shanock, 2006), and thus obtain outcome favorability.

Outcome favorability, according to Brockner and Wiesenfeld (1996), is depicted as the perceived benefits and costs of a decisional resource allocation outcome where the greater the difference between the benefits and costs of a decisional outcome, the higher the probability of the allocation outcome will be considered favorable. Consistently, outcome favorability should mainly include tangible and concrete economic and social resources (e.g., pay rise, work arrangement, and growth opportunity). The study on the intermediate role of outcome favorability in the LMX relationship sheds light on the negligent aspect of social exchange process. The social exchange process in the current literature is overwhelmingly articulated as exchange of social–emotional resources, overlooking similarly important and paralleling exchange of economic and social resources.

The first objective of the study, accordingly, is to propose and test the mediating effect of outcome favorability on the relationship between LMX and OCB. Employees with high-quality LMX relationship could obtain outcome favorability, who may further reciprocate through exhibiting citizenship behavior (Blader & Tyler, 2009). Our study contributes to the literature through addressing an important but little examined perspective of social exchange. We highlight tangible economic and social resources rather than intangible social–emotional resources exchanged between the supervisor and their employees. As LMX implies supervisor–employee exchange, outcome favorability is thus critical to the understanding of the effect of supervisor–employee relationship. Drawing on social exchange theory, the study extended LMX literature through investigating how high-quality LMX relationship will influence employee citizenship behavior via outcome favorability.

The other research effort that could help to examine the mechanism of LMX–OCB relationship is to investigate the moderating effects. High-quality LMX enables outcome favorability, but under what context will employees acquiring favorable outcomes most likely demonstrate citizenship behavior? Outcome favorability of resources involves fairness issues (Flynn & Brockner, 2003). Fairness theory suggests that employees react to the supervisor's treatment of resources based not only on favorability of the outcome but also on fairness of the allocation (Brockner & Wiesenfeld, 1996; Folger & Konovsky, 1989). Surprisingly, most research has treated the interactive effects of outcome favorability and fairness perceptions on employees' reaction to the supervisor's decisions (see Brockner & Wiesenfeld, 1996, for a review) as a means of exploring the sense-making processes elicited by fairness information (Brockner, 2002). Paucity of research explores how employees' perceptions of favorability and fairness interact to influence their positive behaviors. Employees have been shown to respond more positively when outcomes are perceived to be favorable and when procedures associated with the outcomes are viewed as fair (e.g., Lind & Tyler, 1988; Van den Bos, Wilke, Lind, & Vermunt, 1998). Therefore, employees who believe that their outcome favorability acquired in high fairness context would react more positively, thus more willingly demonstrate OCB than in low fairness context.

The second objective of the study is to investigate the moderating effect of fairness climate on the outcome favorability–OCB relationship, and further on the LMX–OCB relationship via outcome favorability. The study contributes to the literature through addressing the concern that under what context LMX could maximize employee citizenship behavior. With proper monitoring systems such as involved in the procedural fairness climate, outcome favorability needs to be regarded as a fair return of good behaviors. By identifying the role of procedural fairness climate, a supervisor may clarify the rules and procedures for delivering rewards and benefits so that fairness and equity could be established and enhanced. Those who obtain outcome favorability will "pay back" the indebtedness by engaging citizenship behaviors. Our research effort responds to the call to uncover potential moderators to address the inconsistent findings on the mixed effects of LMX (Henderson, Wayne, Shore, Bommer, & Tetrick, 2008), and adds values to LMX literature through integrating leadership and fairness research.

Taken together, by integrating the intervening variables of outcome favorability and fairness climate, the study advances our understanding of the processes through which LMX influences OCB. Fig. 1 depicts our conceptual model.

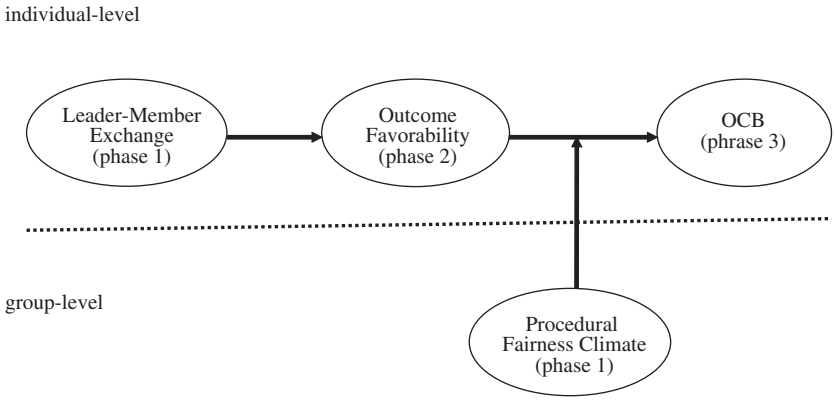

Fig. 1. The hypothesized model.

2. Conceptual background and hypotheses

2.1. LMX, outcome favorability and OCB

Previous research has revealed that LMX is positively related to support, and creates obligations in individuals (Maslyn & Uhl-Bien, 2001), who then reciprocate through demonstrating OCB that benefit the supervisor and others in the work setting (Liden et al., 1997; Settoon, Bennett, & Liden, 1996). As LMX increases, employees in high-quality exchange enjoy a special, advantageous relationship with their supervisors. These employees then feel obligated to return the benefits through contributing to the efficiency and effectiveness of the work unit and thus helping the supervisor by engaging in OCB. High-quality relationships involve exchanges of resources that go beyond those specified in the formal requirements. Thus employees are more likely to engage in OCB. The LMX–OCB relationship is well-established and substantial empirical studies find support for the positive impact of LMX quality on OCB (Ilies et al., 2007; Wayne & Green, 1993; Wayne, Shore, & Liden, 1997).

The link between LMX and OCB is manifested in the resources or rewards that supervisors render to their respective employees. Prior research has alluded to such outcome favorability of resources as special privileges (e.g., access to key personnel or information) and career-enhancing opportunities (e.g., special work assignments) (Wang, Law, Hackett, Wang, & Chen, 2005). Outcome favorability is a holistic construct that describes the general perception and evaluation of the resource treatment. A favorable outcome refers to whether one receives a positive rather than a negative result, based on the individual's personal interests or desires. We argue that high-quality LMX relationship may generate favorable treatment. Supervisors are often instrumental in determining outcomes such as salary increases and bonuses, as well as in providing career advice, task and training opportunities, emotional support, and information (Wayne et al., 1997). Supervisors tend to give greater promotion opportunities and generous bonuses to those with whom they have high-quality relationships and closer personal bonds (Zhang, 2001). In high-quality exchanges, employees receive more favorable treatment or greater outcome favorability from the supervisor (Wang et al., 2005). High-quality LMX constitutes an important source of outcome favorability.

Favorable outcomes in the resource distribution have been linked specifically to the performance of citizenship behavior (Blader & Tyler, 2009). The equity theory (Adams, 1965) of motivation suggests that people are strongly motivated to maintain a balance between what they perceive as their inputs (efforts or contributions) and their outcomes (rewards or inducement). If a person perceives an inequity, a tension or drive will develop in the person's mind, and the person will be motivated to engage in behavior designed to reduce or eliminate the tension and perceived inequity (see some reviews, Ambrose & Kulik, 1999; Mowday, 1991). Consistently, outcome favorability, representing a certain level of specific privileges, may cause tension on the receiver such that in order to maintain equality the receiver will be motivated to reduce the tension by means of displaying citizenship behavior.

Besides, outcome favorability sends a signal to individuals suggesting they are valued group members, thus individuals engage in OCB to maintain their positive standing in the group. OCB could be a reasonable way in which an employee can reciprocate for favorable outcomes. Reciprocity represents quid pro quo propensities, whether positive or negative. A negative reciprocity orientation involves the tendency to return negative treatment for negative treatment; a positive reciprocity orientation involves the tendency to return positive treatment for positive treatment (Cropanzano & Mitchell, 2005). Outcome favorability will enable employees to own more and better resources to engage in OCB.

Briefly, LMX enables employees to benefit from outcome favorability and employees are thus likely to feel obligated and tend to demonstrate citizenship behavior as a way of reciprocation.

H1. Outcome favorability will mediate the relationship between LMX and OCB.

2.2. Moderating effect of procedural fairness climate

As posited, LMX affects outcome favorability which then leads to employees' citizenship behavior. We further argue that the effect of outcome favorability will be contingent upon the procedural fairness climate. Fairness climate is a group-level construct reflecting the shared perception in the work-unit about the fairness with which the work-unit members are treated by the organization (Yang, Mossholder, & Peng, 2007) as well as their supervisors. It indicates both the correct ways of doing things and the valued behavior in terms of high ethical standards in the organization (Walumbwa, Hartnell, & Oke, 2010). The shared information arising from the employees' common experiences would logically flow in relation to all prominent forms of fairness, thereby creating the potential for climate to develop across procedural, interactional, and distributive forms of fairness (Schminke, Cropanzano, & Rupp, 2002). Thus, fairness climate is conceptualized as “distinct group-level cognition about how a work group as a whole is treated.” We focus on procedural fairness, rather than interactive or distributive fairness, because procedural fairness has been shown to be more directly related to various organizational outcomes and employees' performance and work attitudes (Cohen-Charash & Spector, 2001; Viswesvaran & Ones, 2002). Given the fact that procedural fairness climate is a much stronger driver of collective team fairness perceptions (Roberson & Colquitt, 2005), we only consider procedural fairness climate as the contingent variable.

As noted, LMX quality employees build with their supervisors affect the level of their outcome favorability. Some employees are likely to benefit from more favorable resource allocation, some are not. Those who are less favored in resource allocation are particularly concerned about the way in which they will be treated and the resources that they will receive.

Leventhal (1980) identified six criteria for evaluating the fairness of procedures—bias suppression, accuracy of information, consistency, correctability, representativeness, and ethicality. In general, procedural fairness constitutes an organizational form of

'rule of law' in terms of its impersonal or universalistic treatment of employees and is to be distinguished from particularistic treatment of employees. In high procedural fairness climate, benefit is more likely to be offered to employees on the basis of their merit-related criteria rather than non-merit criteria. When rewards are administered contingent upon performance, OCB increases (Podsakoff et al., 2000). Employees will consider their outcome favorability as fairly obtained and satisfying high ethical standards, and they thus owe their favorability more to their work performance than to their personal *guanxi* (connection) with their supervisor. Thus in the context, they are motivated to engage in citizenship behaviors that benefit the organization and colleagues to relieve their tension caused by outcome favorability.

In contrast with universalistic treatment of employees, particularistic treatment of employees entails arbitrary use of authority to reward employees on the basis of non-merit criteria such as loyalty to the power wielder and friendship ties (Pearce, Branyiczki and Bigley, 2000: 150). The inconsistent and biased procedures make the relation between input (effort, or contribution) and outcome (reward or inducement) constantly implicit and indirect. The favorable outcome receiver feels less tension to balance the relation. Instead, they may attribute their benefits (outcome favorability) solely to the provider (the supervisor), and their efforts will be directed to increasing loyalty to their provider rather than to improving job-related behaviors. In other words, there is less drive for employees who own outcome favorability to perform OCB in a low procedural fairness climate because the focus of employees' attention has been shifted from performing OCB to returning favor to the provider. Further, low procedural fairness climate fosters the tendency of "personalism." Personalism makes supervisors use personal criteria and relationship (Westwood, 1997) rather than employee performance as a basis for decision making and action. Employees will react less positively to the outcome in the low procedural fairness climate, and will thus view OCB as an ineffective currency (Walumbwa et al., 2010). Individuals may withdraw OCB in response to perceived unfairness for feeling of being exploited. Together, procedural fairness climate strengthens employees' response to outcome favorability with positive attitudes and behaviors. High procedural fairness climate should therefore enhance the impact of outcome favorability, building an impetus for employees to display OCB.

H2. Procedural fairness climate will moderate the effect of outcome favorability on OCB; the effect will be stronger when procedural fairness climate is high rather than low.

Employees own outcome favorability because of their high-quality relationship with their supervisors. How they react to outcome favorability depends on procedural fairness climate. Employees will be more inclined to display citizenship behaviors when procedural fairness climate is higher. This is because strong procedure fairness climate stimulates employees to reciprocate the fair treatment through demonstrating OCB, while low procedural fairness climate causes employees to attribute outcome favorability to their connection with their supervisor more than to their merits and thus reduce their intention to display OCB. Consistent with Brockner (2002), the stronger the procedural fairness climate, the less likely employees are to see the supervisor as responsible for their outcomes. Employees receive outcome favorability from the supervisor, but will "return positive treatment for positive treatment" beyond their supervisor. We thus infer that outcome favorability mediates the relationship between LMX and OCB and the mediated effect is stronger when procedural fairness climate is strong.

H3. The indirect effect of LMX on OCB via outcome favorability will be moderated by procedural fairness climate; the indirect effect will be stronger when procedural fairness climate is high rather than low.

3. Methods

3.1. Sample and procedure

The respondents in our study were employees of six manufacturing firms in a southern province of the People's Republic of China. They were technicians and engineers. Six survey coordinators, who were employees of the relevant firms, were responsible for collecting data in their respective firms. Using the name lists provided by HR departments, coordinators coded the questionnaires for matched supervisor and employee survey. The coordinators then distributed questionnaires in coded self-addressed envelopes at three different time periods to six employees in each group randomly selected by coordinators. At time 1, in early January of 2012, employees completed questionnaires measuring LMX and procedural fairness. The coordinators collected the questionnaires from employees one week later. We measured procedural fairness climate at time 1 because it is treated as contextual factor and remains relatively stable within a period of time. At time 2, over 1 month later after domestic festival the same batches of employees received the second round of survey. The questionnaire required them to report on outcome favorability, job satisfaction and affective organizational commitment. At time 3, 1 week after time 2, supervisors rated OCB of their corresponding employees. Coordinators collected the questionnaires from employees and supervisors and checked if questionnaires were properly matched. In three waves of data collection, coordinators explained the objectives of the study and voluntary nature of participation in the survey. They further informed supervisors and employees that their responses would be kept strictly confidential and the codes were meant to ensure an accurate match of supervisor–employee surveys.

Of the 300 questionnaires distributed, 238 completed and usable questionnaires from 42 work-units were returned, with a response rate of 79%. Fifty-two percent of the respondents were female. The respondents had a mean age of 30 years (s.d. = 7.56), a mean organizational tenure of 4.18 years (s.d. = 3.43), a mean of 16.08 years (s.d. = 1.68) of formal education, and worked an average of 41.97 h (s.d. = 8.62) a week. Fifty-five percent of respondents were unmarried.

3.2. Measures

The questionnaires were originally constructed in English but were administrated in Chinese. We used a standard translation and back-translation procedure to ensure the equivalence of the measures in the Chinese and the English language versions of the questionnaire (Brislin, 1980). Unless otherwise indicated, response options ranged from (1) 'strongly disagree' to (5) 'strongly agree.'

3.2.1. LMX

Seven-item scale of leader–member exchange relationship was measured using the LMX-7 (Scandura & Graen, 1984). A sample item is: "How well do you feel that your immediate supervisor understands your problems and needs?" The scale's alpha reliability is 0.86.

3.2.2. Outcome favorability

We used a 5-item scale to measure outcome favorability. Three items were developed by Brockner, Siegel, Daly, Tyler, and Martin (1997). Participants were asked to think about their supervisor's decisions in answering the following questions with 5-point Likert scale. (1) "Generally, how favorable are those decisions to you?" (responses range from "very unfavorable" to "very favorable"); (2) "How fair are the decisions your supervisor makes?" (responses range from "very unfair" to "very fair"); and (3) "How good are the decisions your supervisor makes?" (responses range from "very poor" to "very good"). We added two more items to enhance the content validity: (1) "How favorable to you are those decisions on tangible outcomes (e.g., pay rise, work arrangement and growth opportunity)?" (responses range from "very unfavorable" to "very favorable"); and (2) "Compared what you received to others in your work-unit, how favorable are your supervisor's decisions to you?" (responses range from "not at all favorable" to "very favorable"). The fit indexes fell within an acceptable range ($\chi^2 = 7.41$, $df = 5$, RMSEA = .045, CFI = .99, TLI = .98). The alpha reliability for this scale was 0.81.

3.2.3. Procedural fairness climate

A 5-item version from Moorman (1991) was used to measure procedural fairness. A sample item is 'My present organization has procedures designed to generate standards so that decisions could be made with consistency.' The scale's alpha reliability was 0.88. Supporting aggregation, mean γ_{wg} (using a uniform null distribution), ICC (1), ICC (2) and F are .85, .14, .48, and 1.91 (df = 41, 196, $p < .01$) respectively. Though ICC (2) was a bit low partly because of the small unit sizes in the sample (Bliese, 2000), we had sufficient justification to aggregate procedural fairness scores to the unit level (e.g. Kirkman, Chen, Farh, Chen, & Lowe, 2009).

3.2.4. Organizational citizenship behavior

We use a 15-item scale developed by Lee and Allen (2002) to measure OCB. Supervisors rated the frequency (1 = never, 5 = always) with which each of their followers who participated in the survey performed these behaviors. Two sample items for OCB are 'Goes out of the way to make newer employees feel welcome in the work group,' and 'Attends functions that are not required but that help the organization's image.' The scale's alpha reliability was 0.89.

3.2.5. Control variables

To avoid potential confounding effects on our dependent variables (Van Dyne & LePine, 1998), we controlled for affective organizational commitment and job satisfaction because they have been found to be significantly related to OCB (Podsakoff et al., 2000). Organizational commitment is measured with a 6-item affective organizational commitment scale developed by Meyer, Allen, and Smith (1993). Job satisfaction was measured with the three-item job satisfaction developed by Kopelman, Greenhaus, and Connolly (1983). We also controlled for a number of employee demographic variables. A single item was used to measure the demographic characteristics of gender (male = 0, female = 1), age at last birthday, and years of formal education.

3.3. Data analysis

We used hierarchical linear modeling (HLM) with the software HLM 6.08 to test the hypotheses given the nested nature of our data. Two-level models were employed, wherein employees constituted the Level 1 (L1) cases nested within Level 2 work units. Although work units were also nested in firms, the number of firms ($n = 6$) was too small to support the adequate examination of three-level models (Henderson et al., 2008; Raudenbush & Bryk, 2002). We ran models with no predictors but outcome favorability and OCB as dependent variables. The test results show significant between-group variances in outcome favorability ($\chi^2 = 82.56$, $df = 41$, $p < .001$; ICC1 = .15, indicating 15% of variance residing in between group), and OCB ($\chi^2 = 224.23$, $df = 41$, $p < .001$; ICC1 = .45, indicating 45% of variance residing in between group), justifying HLM as the appropriate analytic technique.

Following Kreft and De Leeuw (1998) and Aryee, Sun, Chen, and Debrah (2008), we built our model incrementally, through which we tested our hypotheses. Table 2 helps to understand data analysis process. First, to test H1, we follow Baron and Kenny's (1986) mediation procedures. We ran intercepts-as-outcomes models (Hofmann, Griffin, & Gavin, 2000) with OCB and outcome favorability as dependent variables respectively. For convenience to calculate R^2, we ran models with only control variables (see M1 and M6) first, and then added LMX (individual-level predictor), followed by unit mean of LMX (group-level predictor) (see M2 and M7). To test the mediating effect, we further ran the model with OCB as dependent variable (see M3) and added outcome favorability (individual-level predictor) and unit mean of outcome favorability (group-level predictor) on the basis of independent variables in M2.

It should be noted that in H1 the independent variable, the mediator, and the dependent variable are all measured at the individual level with grand-mean centering, potential confounding effects may occur, but such effects can be decomposed into within- and between-unit mediation effects (Zhang, Zyphur, & Preacher, 2009). A combination of the within- and between-unit effects may result in misrepresentation of mediation effects at the individual level and a biased estimation. Thus, CWC(M) is recommended for formulating a multilevel mediation model, since the within-group relationship under CWC(M) is independent of the between-group relationship (e.g., Kreft & De Leeuw, 1998). Kreft and De Leeuw (1998) termed the group-mean centered analysis "centered within context" or CWC. CWC(M) refers to centered within context with reintroduction of the subtracted means as Level 2 (Kreft & De Leeuw, 1998). CWC(M) avoids using grand-mean centering which might lead to potential confounding. Thus, in our study LMX, outcome favorability and OCB are all group-mean centered at Level 1, and their group means are included at Level 2. The CWC(M) approach provides a more precise estimation for within- and between-unit coefficients of the mediator.

Second, we tested the hypothesized cross-level interaction effects (H2) following Hofmann, Griffin, and Gavin (2000). Specifically, we ran the slopes-as-outcomes model on the basis of M3 with OCB as dependent variable. We first added procedural fairness climate as group-level predictor (see M4), followed by procedural fairness climate as a group-level predictor of the parameter of outcome favorability (see M5). We separate the process into two steps for convenience to calculate R^2. To demonstrate the robustness of the study and potential concern on interaction between LMX and procedural fairness climate, we ran the slope-as-outcomes model with outcome favorability as dependent variable. We added procedural fairness climate as a group-level predictor (see M8), followed by procedural fairness climate as a group-level predictor of the parameter of outcome favorability (see M9).

Finally, we tested the hypothesized conditional process modeling (moderated indirect effect, H3). We bootstrapped with 10,000 iterations to construct bias-corrected confidence intervals for the significance tests of the indirect effects. Since HLM does not possess the function of bootstrapping, we bootstrapped in SPSS with HLM estimates as the starting values (Liao, Liu, & Loi, 2010). Specifically, we employed PROCESS developed by Hayes (2012) to test this conditional process modeling. Since all the variables need to be treated at one level in conditional process modeling, we tested the moderating effect using procedural fairness, an individual-level variable prior to its aggregation to unit-level procedural fairness climate. Process is a versatile modeling tool freely available for SPSS that integrates many of the functions of existing and popular published statistical tools for mediation and moderation analysis as well as their integration. According to Hayes (2012), included in the set of models PROCESS can estimate are all models described by Edwards and Lambert (2007), Fairchild and MacKinnon (2009), Preacher and Hayes (2004, 2008a), Preacher, Rucker, and Hayes (2007), Hayes, Preacher, and Myers (2011), and Muller, Judd, and Yzerbyt (2005), among others.

4. Results

This section reports the results of confirmatory factor analysis (CFA), descriptive statistics, mediational test (H1), moderational test (H2) and moderated indirect effete test (H3).

4.1. CFA

We conducted confirmatory factor analysis (CFA) to examine the discriminant validity of the multi-item variables in the study. Specifically, we compared our hypothesized four-factor model (LMX, outcome favorability, procedural fairness, and OCB) to a series of alternative nested models: three-factor Model 1 (combining LMX and outcome favorability), three-factor Model 2 (combining LMX and procedural fairness), three-factor Model 3 (combining outcome favorability and procedural fairness), two-factor model (combining LMX, outcome favorability, and procedural fairness), and one-factor model (combining all the factors). Results of CFA indicate that the hypothesized four-factor model (RMSEA = .03, CFI = .99, TLI = .99) fits the data better than the three-factor Model 1 (RMSEA = .13, CFI = .83, TLI = .78), three-factor Model 2 (RMSEA = .13, CFI = .83, TLI = .78), three-factor Model 3 (RMSEA = .09, CFI = .92, TLI = .90), two-facor model (RMSEA = .16, CFI = .76, TLI = .70), and one-factor model (RMSEA = .21, CFI = .55, TLI = .45). Furthermore, the chi-square difference test showed that the hypothesized four-factor

Table 1
Descriptive statistics and variable zero-order correlations.

Variables	Mean	SD	1	2	3	4	5	6	7	8	9
1. Gender	.53	.50									
2. Age	30.00	7.56	−.11								
3. Education	16.08	1.68	−.27**	−.03							
4. OC	3.80	.60	.09	−.02	−.19**						
5. Job Satisfaction	3.94	.60	−.01	.01	.04	.43**					
6. LMX	3.68	.61	−.05	.03	.15*	.35**	.33**				
7. Outcome favorability	3.52	.54	−.10	.16*	.03	.27**	.31**	.24**			
8. Procedural fairness	3.72	.35	.04	.05	−.20**	.22**	.21**	.19**	.31**		
9. OCB	3.92	.48	−.01	.11	−.02	.17**	.13*	.16*	.17*	.03	

n = 238 employees and 42 supervisors. 0 = male, 1 = female.
OC = organizational commitment; LMX = leader–member exchange; OCB = organizational citizenship behavior.
* $p<.05$.
** $p<.01$.

model fit the data significantly better than the three-factor Model 1 ($\Delta\chi^2 = 241.19$, $\Delta df = 3$), three-factor Model 2 ($\Delta\chi^2 = 246.14$, $\Delta df = 3$), three-factor Model 3 ($\Delta\chi^2 = 103.13$, $\Delta df = 3$), two-factor model ($\Delta\chi^2 = 348.19$, $\Delta df = 5$), and one-factor model ($\Delta\chi^2 = 668.46$, $\Delta df = 6$). The CFA results indicate support for the hypothesized four-factor model and, therefore, the distinctiveness of the variables in this study.

4.2. Descriptive statistics

Table 1 presents the descriptive statistics and zero-order correlations of the study variables.

4.3. Mediated effects of LMX on OCB via outcome favorability

H1 posited that outcome favorability mediated the relationships between LMX and OCB. In Table 2, results revealed that LMX had a significant direct effect on OCB ($\gamma = .19$, $p < .01$; see M2) which confirmed previous studies, and on outcome favorability ($\gamma = .15$, $p < .05$, see M7). Controlling for LMX, outcome favorability was not related to OCB ($\gamma = .06$, ns, see M3). Thus, outcome favorability did not mediate the effect of LMX on OCB. H1 was rejected.

4.4. Moderating effects of procedural fairness climate

H2 posited that procedural fairness climate enhanced the relationship between outcome favorability and OCB. To find support for H2, the gamma coefficient associated with the two-way interaction should be statistically significant. Table 2 shows that the interaction between outcome favorability and procedural fairness climate was significantly and positively related to OCB ($\gamma = .13$, $p < .05$, see M5). Thus, H2 was supported.

As to the supplementary analysis of moderating effect of procedural fairness climate, M9 shows that procedural fairness climate did not moderate that relationship between LMX and outcome favorability ($\gamma = -.05$, ns).

4.5. Moderated indirect effects by procedural fairness climate

Table 3 provided tests for H3. The indirect paths from LMX to OCB significantly varied at high but not at low value of procedural fairness climate. When procedural fairness climate was higher, LMX had an indirect effect on OCB ($b = .04$, boot SE =

Table 2
Summary of multilevel mediated moderation model.

Variables	Organizational citizenship behavior					Outcome favorability			
	M1	M2	M3	M4	M5	M6	M7	M8	M9
Controls									
Individual level									
Gender	.09	.14*	.12	.12	.10	−.08	−.05	−.05	−.05
Age	.01	.01	.01	.01	.01	.00	.00	.00	.00
Education	.09**	.09***	.08***	.08***	.08***	.03	.02	.02	.02
Job satisfaction	.04	−.01	.02	.02	.02	.17**	.14*	.14*	.15*
Organizational Commitment	.14	.14	.10	.10	.10	.23**	.19*	.19*	.18*
Group level									
Unit mean of LMX		.01	−.02	−.02	−.02		.00	−.01	−.01
Unit mean of outcome favorability			.15	.15	.14				
Independent variable									
Individual level: LMX		.19**	.09	.09	.09		.15*	.15*	.16*
Mediator									
Individual level: outcome favorability			.06	.06	.06				
$R^2_{\text{within-group}}$		0.24	− 0.22				0.03		
Moderator									
Group level: procedural fairness climate				.01	− .01			.17**	.17**
$R^2_{\text{between-group}}$				− 0.03				0.19	
Cross-level interaction									
Outfav × Procedural fairness climate					.13*				
LMX × procedural fairness climate									−.05
R^2					0.29				− 0.08

N = 238. We use estimation with robust standard errors. 0 = male, 1 = female; Outfav = outcome favorability.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

.02, 95% bias-corrected CI: 0.01, 0.10). When procedural fairness climate was lower, LMX did not have an indirect effect on OCB ($b = .02$, boot SE = .02, 95% bias-corrected CI: −0.01, 0.06). Consequently, H3 was supported.

Following Edwards and Lambert (2007), we plotted interaction between indirect effect and procedural fairness climate. Fig. 2 shows the plot of the mediated effects of LMX at ±1 SD around the mean of the procedural fairness. The mediating effect of outcome favorability on the relationship between LMX and OCB is stronger when procedural fairness is high rather than low. These results provided further support for our H3.

5. Discussion

This study examined a model that explains why and under what context LMX is related to employee OCB. The results revealed that (1) LMX was positively related to outcome favorability and OCB, (2) procedural fairness climate moderated the relationship between outcome favorability and OCB, and (3) the indirect effect of LMX on OCB (via outcome favorability) was stronger when procedural fairness climate was strong rather than weak.

5.1. Theoretical and practical implications

Our results provide support for a more comprehensive conceptualization of LMX–OCB as a social exchange process. This study contributes to the LMX research by corroborating and extending prior findings in several ways. First, though the relationship between LMX and OCB is well documented in the literature (for meta-analysis, see Ilies et al., 2007; Podsakoff et al., 2000), paucity of research has answered why LMX will lead to OCB and investigates the intermediate process through which LMX affects OCBs. Different from Walumbwa et al. (2011) that examined the mediating role of social–emotional exchange, the study stresses on the intermediate role of the exchange based on economic resources. As noted, social exchange involves both exchange of economic resources and social–emotional resources (Shore et al., 2006). Exchange relationships vary in terms of the quantity and quality of resources provided by exchange partners (Liden et al., 1997). The greater the perceived value of both tangible and intangible resources exchanged between the supervisor and employees, the higher the quality of relationship. Prior studies highlighted more of the intangible resource exchange, but largely neglected to examine how supervisors distribute tangible resources with their power to affect employee behaviors. We found that high-quality LMX enables employees to enjoy outcome favorability in the resource distribution, who may reciprocate through performing citizenship behavior in their workplace.

Second, though much research has discussed from fairness theory perspective how employees react to the supervisors' treatment of resources based on favorability and fairness of the allocation (Brockner & Wiesenfeld, 1996; Flynn & Brockner, 2003; Folger & Konovsky, 1989), little research explores how their perceptions of favorability and fairness interact to influence their positive behaviors. The study found support for the boundary conditions of procedural fairness climate on the outcome favorability–OCB relationship. Employees who have a sense of outcome favorability from their supervisor are most responsive to the procedural fairness climate. In doing so, they are able to justify their received benefits and make them respectable by others. Meanwhile, the perception of outcome favorability increases one's sensitivity to equity. To maintain their status in the work-unit, employees will react more positively to the favorability to reduce the tension of growing expectation from others through performing OCB that benefits colleagues and the organization. The procedural fairness climate may be helpful in that one's outcome favorability is well earned.

Further, the study found support for the boundary conditions of procedural fairness climate on the indirect effect via outcome favorability. However, outcome favorability did not mediate the relationship between LMX and OCB in the simple mediation test. This might be because of the nature of outcome favorability as an exchange of economic and social resources between the supervisor and employees. In Chinese society, as the representatives of the work-unit supervisors dominate resource allocation decisions. The quality of interpersonal treatment received at the hands of a supervisor (Bies & Moag, 1986) thus constitutes a critically important variable in shaping employees' experience in the work-unit. Employees have heightened sensitivity to the resource allocation and fairness. Without high procedural fairness climate, outcome favorability would be viewed as being offered on the basis of non-merit criteria such as loyalty to the power wielder and friendship ties. Outcome favorability could be naturally linked to personal *guanxi* with supervisors. In the context, employees who enjoy outcome favorability will maintain and strengthen their loyalty to their supervisor and friendship ties. OCB does not seem to be effective exchange currency.

Third, we investigated the moderating effect of procedural fairness climate on the outcome favorability-OCB relationship, which differentiated traditional sense-making discourse on the interaction between outcome favorability and fairness perceptions on employees' reaction. Previous research has investigated the main and interactive effects of outcome favorability and fairness perceptions on employees' reaction to organizational decisions (see Brockner & Wiesenfeld, 1996, for a review) as a means of exploring the sense-making processes elicited by fairness information (Brockner, 2002). According to Brockner and

Table 3
Conditional indirect effect(s) of LMX on OCB at values of procedural fairness climate.

Path	Moderator	Indirect effects	Boot SE	Boot LLCI	Boot ULCI
Simple path for low procedural fairness climate	−.35	.02	.02	−.01	.06
Simple path for high procedural fairness climate	.35	.04	.02	.01	.10

95% bias-correlated CI.

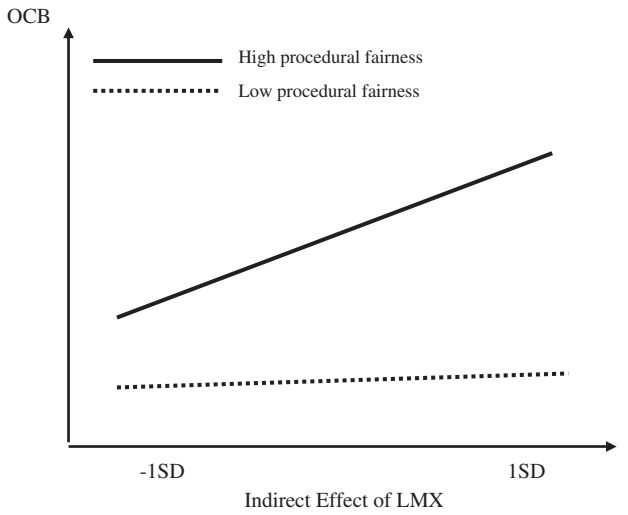

Fig. 2. Interaction between the indirect effect of LMX and procedural fairness on OCB.

Wiesenfeld (1996) and Brockner et al. (2007), people seek to understand the reason for their outcomes, particularly when those outcomes are unfavorable. One source of information that people use to make attribution of responsibility for their outcomes is the authority's procedural fairness. Specifically, the more that the authority is procedurally unfair, the more likely are employees to perceive the supervisor as responsible for the outcomes. Furthermore, the more employees perceive the supervisor as responsible for their unfavorable outcomes, the more likely they are to respond negatively to the decision.

We investigated the impact of procedural fairness climate on the relationship between outcome favorability and citizenship behavior, which extends the traditional sense-making discourse. We found support for the moderating effect on procedural fairness climate. Briefly, outcome favorability is more strongly related to OCB when procedural fairness climate is stronger. Contrary to the focus on unfavorable outcome, we highlight how favorable outcome will lead employees to perform OCB under the boundary condition of procedural fairness climate. In high procedural fairness climate, since the interests of all concerned parties represented will be concerned, employees tend to attribute outcome favorability more to work-related performance. They would display OCB more to balance the favorability.

Fourth, we use three-phrase multilevel data from multiple sources to test our hypotheses, which could alleviate common method bias. Further, the temporally lagged investigation of LMX→outcome favorability→OCB allows us to test their relationships over time. Employees do need time to evaluate the relationship quality with their supervisors and react.

Our results have several implications for practice. Assuming employees' OCB are critical components of organizational success, an investigation into the antecedents of work outcomes may form the basis for enhancing positive work-related attitudes and behavior. Our study suggests that outcome favorability increases the level of OCB. Since the favorability of outcome employees receive depends on the quality of their relationship with their supervisors, supervisors have the greatest need to enhance their relations with their employees. For example, supervisors must learn to build high levels of trust, liking, and respect with their employees (Erdogan & Liden, 2002) and provide tangible and intangible resources to employees that enable them to exhibit more OCB. Since the exchanges resources are limited, supervisors have to allocate these resources to those who perform more of citizenship behaviors. Our study also suggests that increasing the level of procedural fairness climate influences the effect of a high-quality supervisor–employee relationship on OCB. Supervisors need to learn to offer favorable outcomes to employees without breaking the norm of procedural fairness. Appropriate treatment of favorability and fairness in resource allocation is a crucial element in gaining and sustaining positive work outcomes among employees. The favorability of outcomes received as well as the fairness of the procedures used by the supervisor to arrive at these outcomes may influence employees' OCB. Outcome favorability alone would not have significant mediating effect on LMX–OCB relationship. Since both fairness and favorability play an important role in the LMX–OCB link, supervisors should not just only provide favorable treatment, but also pay attention to fairness.

5.2. Limitations and future research directions

The findings of our study should be evaluated against the backdrop of its limitations. First, with the exception of OCB, the data we used for our study were based on self-report, which makes our findings susceptible to common method variance. Yet, we conducted a three-phrase data collection with LMX and outcome favorability at two different stages, which help reduce the threat of common method variance (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). Further, the CFA results provide a compelling case for the empirical distinctiveness of the variables used in the study, and should mitigate concerns about common method variance. The model combining self-reported variables shows less fit than the one in which they are treated in isolation. Further, the significant moderating role of procedural fairness climate in the mediated effect of LMX suggests that our findings are not entirely

attributable to method variance (Wall, Jackson, Mullarkey, & Parker, 1996). Second, there are some unmeasured variables in the study which may restrict our contribution. We offer three examples here. (1) The study only includes procedural fairness climate as the moderator without supplying a complete picture of fairness climate. (2) Though the study is to examine the mechanism through which LMX affects OCB, it may enhance our contribution if we provide supplementary results regarding the impact of LMX on in-role performance. (3) We have the ratings of LMX relationship solely from subordinates without ratings from supervisors, which may not reflect the accurate judgment of LMX relationship. Accordingly, future research should (1) consider complete dimensions of fairness, such as the one developed by Colquitt (2001), (2) expand work outcomes from OCB to other outcomes, such as in-role performance and creative performance, and (3) collect LMX data also from the perspective of supervisors and test the agreement of ratings by subordinates and supervisors. Third, the study intends to explore "more tangible and concrete resource exchange, such as exchange of economic resources." However, the measure of outcome favorability has only one item to capture tangible resources in the present study. There is a need to develop a new scale in the future study to particularly measure diverse exchange of economic and social resources. Fourth, although we tested a culture-free model, we are uncertain about the extent to which the cultural context of the study might have influenced our findings and thus limited their generalizability. Future research may specifically theorize and examine the moderating influence of cultural factors in the relationships we examined. Lastly, LMX indirectly influenced OCB via outcome favorability in high procedural fairness climate, which suggests an alternative mechanism through which relational quality with leader affects OCB. Future research could examine social exchange in terms of both social–emotional resource and economic resource in eliciting citizenship behavior in the context of high-quality LMX.

6. Conclusion

Using three-phrase multilevel data from multiple sources, the study examined the conditional indirect model in which LMX affects OCB. Examining the intermediate role of outcome favorability uncovers the social exchange process based on exchange of economic and social resources. The study extends the well-documented relationship between LMX and OCB, and sheds new light on literature pertaining to the integration of LMX and fairness research. We hope that the study serves to stimulate further interest in these important issues.

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