

Full Length Research Paper

The mediating role of trust in teammates in the relationship between differentiation in leader-member exchange (LMX) and work attitude: An empirical study in China

Ni Yuan^{1*} and Lin Jian²

¹School of Economics and Management, BeiJing University of Aeronautics and Astronautics, BeiJing 100191, China.

²Institute of Education, Tsinghua University, BeiJing 100084, China.

Accepted 9 December, 2011

A fundamental principle of leader-member exchange (LMX) theory is that leaders develop different quality relationships with their employees. However, little research has investigated the impact of LMX differentiation on employees' work attitude. Therefore, this study examines the mediating influence of trust in teammates on the relationships between perceptions of LMX variability within a team and the work attitude of affective organizational commitment and turnover intentions. Data were obtained from 225 employees in diverse organizations and occupational groups in Shandong Province, People's Republic of China. The model was tested at the individual level. Controlling for individual-level perceptions of LMX quality, the results revealed that an individual's perception of LMX variability in their team was negatively related to employee's affective organizational commitment and positively related to employee turnover intentions, and these two relationships were mediated by reports of relational trust in teammates. Our study thus contributes to a better understanding of the 'black box' phenomenon that links LMX differentiation to work attitude and enriches knowledge of the social exchange mechanisms.

Key words: Leader-member exchange (LMX), LMX variability, trust, work attitude.

INTRODUCTION

As a foundational aspect of organizational dynamics, the leader-subordinate relationship is always viewed as one of the most crucial relationships in the organizational setting (Manzoni and Barsoux, 2002). Many of the early researches on leader-subordinate relationship adopted an average leadership style perspective which assumed that leadership influence was applied consistently across followers (Aryee and Chen, 2006). However, the leader-member exchange (LMX) theory, which evolved from the vertical-dyad linkage (Dansereau et al., 1975), has emerged as a departure from the average leadership

style theories by proposing that leaders develop different quality of relationships with subordinates, ranging from low to high. In high LMX relationships, subordinates who receive support and trust from their leader (Dienesch and Liden, 1986), are given more responsibility (Dansereau et al., 1975), and receive better performance evaluations (Graen et al., 1982) or more frequent promotions (Wakabayashi et al., 1988). In low LMX relationships, work is performed as a formal set of rules and the employment contract. Subordinates receive limited support and trust from their leader (Dienesch and Liden, 1986), and are given less job-related information, and lower performance evaluation (Gerstner and Day, 1997).

Although, the relationships between LMX quality and individual-level outcomes have been well established in the literature, the extant LMX research has largely

*Corresponding author. E-mail: niyuan230@163.com. Tel: +86-152-1083-2676.

overlooked how differentiation in LMX relationships within teams affects employee work attitude and behaviors, which is naturally embedded in the phenomenon of LMX (Henderson et al., 2009). According to Ma and Qu (2010), some leaders could differentiate significantly in the quality of their relationships with multiple members, resulting in a clear distinction of in- and out-groups. In contrast, other leaders may differentiate very little or not at all in their relationships with multiple members, making in- and out-group distinctions less clear. Obviously, the actual degree of differentiation will have important effects on the employee performance. Furthermore, a recent review of the LMX differentiation literature has emphasized importance of exploring outcomes of leader-member exchange differentiation or the variability in LMX patterns at different levels (Henderson et al., 2009). Therefore, to address this imbalance, this study focuses on illuminating the relationship between LMX differentiation and the individual affective organizational commitment and turnover intentions, which are considered as two significant aspects of work attitude (Harris et al., 2011).

To our knowledge, majority of the present studies on LMX differentiation mainly adopted LMX differentiation as a moderator variable, exploring the interaction between LMX and LMX differentiation to multilevel outcomes (Boies and Howell, 2006; Ma and Qu, 2010; Naidoo et al., 2011). Literatures directly integrating LMX differentiation with individual-level outcome are very rare. Hooper and Martin (2008) found that individuals' perception of LMX variability in their team was negatively related to employee job satisfaction and wellbeing, and this relationship was mediated by reports of relational team conflict. Although, this research addressed possible mechanism of correlation between LMX differentiation and work attitude, there were still many unknown fields, Such as whether the team conflict is the only mediating variable, whether there are any other mediators affecting the relationship between them, and what those variables are, all of which are necessary to figure out. Consequently, the second objective of this study is to examine the mediating role of team trust in the relationship between LMX differentiation and the work attitude of affective organizational commitment and turnover intentions.

Furthermore, most of the research on LMX differentiation and outcomes or attitude has been based on US samples. Although the extant research on LMX based on non-US samples in collectivistic cultures has demonstrated LMX to be a relevant construct (Hui et al., 1999; Law et al., 2000), research in such cultures has yet to examine antecedents of LMX differentiation and the mechanisms through which LMX differentiation influences its outcomes (Erdogan and Liden, 2002). The LMX and its relative construct such as LMX differentiation are particularly crucial in the collectivistic culture of China because the person-oriented nature of Chinese societies

and the absence of impersonal notions of authority make personalism an important basis for decision making, which probably influence a subordinate's perception of LMX variability within a workgroup (Aryee and Chen, 2006). Therefore, in order to examine whether the mechanisms between LMX differentiation and work attitude are effective across cultures, this study measures this correlation in a Chinese context, which is useful for global firms seeking to increase performance of their culturally diverse employees.

To enrich the knowledge of LMX differentiation and contribute to the leadership literature, in this paper, we focus on the association between LMX differentiation and work attitude. LMX differentiation is conceptualized here as the amount of variability in LMX relationships perceived by team members (termed perceived LMX variability). Affective organizational commitment and turnover intentions are selected as two significant aspects of work attitude. Specifically, we argue that an individual's perception of LMX variability in their team is negatively related to employee affective organizational commitment and positively related to employee turnover intentions, and these two relationships are mediated by reports of relational team trust. Further, we firstly outline our theoretical framework and hypotheses, and then report the results of an empirical study. We conclude by discussing the implications of our findings for LMX theory, as well as future research directions.

LITERATURE REVIEW AND HYPOTHESES

LMX differentiation and trust in teammates

Trust in teammates is a critical success element for an organization (Lewicki et al., 1998). Research has suggested a connection between trust and a variety of work behavior and attitude including organizational citizenship behavior (Brower et al., 2009), employee performance, both individual and as a group (Dirks and Skarlicki, 2009; Mayer and Davis, 1999), a commitment to the team's objectives (Costa et al., 2001), team performance (Hempel et al., 2009), and increased coordination and cooperation (McAllister, 1995). Consequently, a stream of researchers has focused on how to produce this kind of trust in the organization. Zucker (1986) discussed 3 central modes of trust production, each with associated measures: 1) process-based, tied to past or expected exchange; 2) characteristic-based, tied to person, based on social characteristics; and 3) institutional-based, tied to formal societal structures. McAllister (1995) developed affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. Ferrer (2001) summarized the results of such studies by saying that openness of communication, perceived organizational support, and justice are typical determinants of trust. Although

leadership also seems to be an important determining factor in intensifying trust levels in organizations (Bass, 2002), the study exploring relationship between LMX differentiation and the trust in teammates has not been mentioned in any literature. Fortunately, a number of studies have been done integrating LMX differentiation or similarity with the antecedents of trust, such as openness of communication and justice. For example, Sias and Jablin (1995) used discourse analysis to investigate how differential LMX relationships in teams affected perceptions of fairness and coworker communication. The findings indicated that LMX variability may lead to relational problems between differentiated coworkers, including dislike and distrust from low status members, disrespect and rejection from high status members, and ultimately poor within-team communication. Sherony and Green (2002) investigated how LMX similarity between two coworkers affected their relationship with each other (that is, their coworker exchange relationship; CWX). Survey data were collected from 67 participants, including engineers and health service personnel by a questionnaire measuring the quality of their own LMX relationship, as well as the quality of their CWX relationship with each of their coworkers. Results showed that when two coworkers had similar LMX relationships, they developed a better CWX relationship with each other than coworker dyads whose LMX relationships were different. As openness of communication and justice are thought to enhance trust in teammates (Smith and Barclay, 1997; Kim and Mauborgne, 1993), on the basis of literatures aforementioned, it is important to note that the presence of differential LMX relationships within teams is likely to decrease employees' perceptions of fairness and quality of interpersonal communication which subsequently result in less positive team relation such as the trust in teammates. Therefore, the following hypotheses are proposed:

H₁: Perceived LMX variability will be negatively related to trust in teammates

LMX differentiation and work attitude

As a multidimensional construct, although there have been several definitions and measures of organizational commitment (Becker, 1960; Porter et al., 1974), Meyer and Allen's (1991) three-component model has been viewed as the dominant framework for OC research in the past decade, which consists of: a) affective commitment (AC, an emotional attachment to one's organization); b) continuance commitment (CC, an attachment based on the accumulation of valued side bets such as pension, skill transferability, and self-investment); and c) normative commitment (NC, an attachment that is based on motivation to conform to social norms). With cross-cultural studies of

organizational commitment conducted in many countries, Cheng and Stockdale (2003) examined the construct validity of Meyer and Allen's (1991) three-component model of organizational commitment in a Chinese context and found that work attitudes and turnover intentions were related more to AC than to NC or CC. Thus, in this study, we select affective organizational commitment and turnover intentions that is commonly endorsed in the literature as a predictor of turnover behavior (Mobley et al., 1978) as two constructs describing the general employee work attitudes, which respectively represent the positive and negative aspects of employee work attitudes.

Given highly valued benefit of affective organizational commitment for in-role and extra role performance (Tremblay et al., 2010) and high cost of individuals quitting their job springing from high turnover intention (Han and Jekel, 2011), many scholars focus on exploring the antecedents of these two constructs and found leadership style was a common factor having different impact on both of them. The extant research has shown that servant leadership, transformational leadership and the quality of LMX employee perceived negatively predicted the employee organizational commitment (Dannhauser and Boshoff, 2006; Avolio et al., 2004) while improving employee retention and for reducing intentions to quit (Harris et al., 2011). As a crucial part of leadership theory, little research has been devoted to the relationship between LMX differentiation and affective organizational commitment as well as turnover intentions. Referring to Leventhal's (1980) work on justice perceptions, Van Breukelen et al. (2002) present an investigation into the effects of perceived LMX variability within commitment in work teams. Survey data were collected from 152 employees from a Dutch municipal water company and results showed an interaction between LMX and LMX variability, such that the relationship between LMX and commitment was stronger for individuals in teams with low levels of perceived variability than for individuals in teams with high perceived variability, which implicitly argued that high level of perceived LMX variability probably raised subordinates' doubts about the integrity of the leader and then caused the low affective organizational commitment and high turnover intentions. Consistent with this inference above, some available research evidence also suggests that LMX differentiation may have negative implications for affective organizational commitment and positive implications for turnover intentions. For example, using surveys from leaders and subordinates as well as archival data from six companies, Ma and Qu (2010) found that LMX differentiation would strengthen the positive effect that LMX had on subjective performance evaluation. Specifically, when LMX differentiation level is high, in-group members receive higher performance ratings than deserved; out-group members receive lower performance rating than they deserved. This distensible

gap by distinct subjective evaluation obviously breaks subordinates' perception of fairness that has been adequately addressed to easily decrease the subordinates' affective organizational commitment and improve their turnover intentions (Herda and Lavelle, 2011; Ditttrich et al., 1985). Moreover, by two different samples empirical research, Hooper and Martin (2008) claimed that perceived variability in LMX was positively related to conflict among team members and negatively related to employee job satisfaction and well-being, both of which are positively associated with affective organizational commitment and negatively associated with turnover intentions (Charles and Schwepker Jr., 2001). Hence, we infer that LMX differentiation is negatively related to affective organizational commitment, and positively related to employee turnover intentions.

Furthermore, as personal LMX quality has been strongly related to work attitude (Dansereau et al., 1975; Gerstner and Day, 1997; Martin et al., 2005) in previous studies, it is important to control for the effects of personal LMX quality prior to investigating any incremental effect of perceived LMX variability. Therefore, on the basis of the aforementioned literature, the following hypothesis is proposed:

H₂: When controlling for personal LMX quality, LMX differentiation is (a) negatively related to affective organizational commitment, and (b) positively related to employee turnover intentions.

Trust in teammates and work attitude

Trust in teammates is an increasingly important element in determining employee performance and commitment to the organization. Different from the afore proposed hypotheses, the relationship between trust in teammates and affective organizational commitment has been adequately addressed in many extant literatures. Geyskens et al. (1999) offered a set of hypotheses concerning the joint impact of trust and interdependence on both affective and calculative commitment, the result of which implied commitment depended on trust. Through a predictive, non-experimental design developed from Kanter's theory in a random sample of 412 Canadian staff nurses, Spence et al. (2001) found that higher levels of organizational trust resulted in higher levels of organizational commitment. Furthermore, after analyzing the data from 216 employees in various industries, Chen and Indartono (2011) argued organization trust as an intermediate variable mediated the positive relationship between procedural justice and organizational commitment. Thus, we infer that trust in teammates may have a positive impact on affective organizational commitment.

Similarly, the relationship between trust in teammates and turnover intention is also clear. According to Burt et al. (2009), the level of trust in teams is correlated with perceived risk. When the trust in group is high, employee

can perceive less risk from their members and induce them engaging in a number of safety ensuring behaviors that decrease the turnover intentions. Other research into the relation between trust and turnover intentions has also yielded consistent results (Emberland, 2010; Teng et al., 2007). Hence, it is reasonable to conclude that trust in teammates maybe has a negative impact on turnover intentions. Therefore, on the basis of the aforementioned literature, the following hypothesis is proposed:

H₃: Trust in teammates is (a) positively related to affective organizational commitment, and (b) negatively related to employee turnover intentions.

The mediating role of trust in teammates

In spite of the mediating effect of trust in the LMX-outcome relationship which has been well demonstrated (Christina et al., 2011), no researcher has adopted the trust explaining the mechanism between LMX differentiation and work attitude such as turnover intentions and affective organizational commitment.

However, according to Hooper and Martin (2008), team conflict which is negatively associated with trust in teammates, plays a mediating role in the LMX differentiation and job satisfaction. Moreover, the preceding discussion linking both LMX differentiation and trust in teammates to work attitude and LMX differentiation to trust in teammates suggest a mediating role for trust in the LMX differentiation-work attitude relationship. Therefore, on the basis of the aforementioned literature, the following hypothesis is proposed:

H₄: The relationship between perceived LMX variability and employee work attitude will be mediated by reports of relational trust in teammates.

METHODS

Participants

Data were obtained from 225 employees in diverse organizations and occupational groups in China. Participants represented customer service/sales (46%), administrative (28.9%), healthcare (14.2%) manual (3.4%) and other (7.5%) professions. Of the sample, 71.4% were female, with a mean age and leader-member dyad tenure of 24.53 and 1.01 years, respectively. Team size ranged from 3 to 18 members, with a mean team size of 6.74 members. All analyses were conducted at the individual level of analysis.

Procedure

Questionnaires and instructions were distributed to participants, with no identifying information requested. Participants were instructed to complete the questionnaire and hand it directly to the researcher.

Table 1. Descriptive statistics and correlations for all variables (N=225).

Variable	Mean	SD	1	2	3	4	5	6	7	8	9
Gender	–	–	–								
Age	24.53	4.32	-0.06	–							
Team size	6.74	4.61	-0.07	0.08	–						
Dyad tenure	1.01	1.04	0.03	0.51***	0.18	–					
Hours	20.25	12.92	0.11	0.41***	0.09	0.08	–				
LMX	3.29	0.82	-0.03	0.04	0.17	0.14	-0.15	–			
LMX variability	0.19	0.12	0.17	-0.14	0.33***	-0.13	-0.04	-0.29**	–		
Trust in teammates	2.36	0.93	-0.10	0.15	0.12	-0.14	-0.18	0.07	-0.33***	–	
AOC	2.59	0.84	-0.06	0.14	0.06	-0.15	-0.28**	0.55***	-0.27**	0.35***	–
Turnover intention	3.91	0.73	0.19	-0.01	0.05	0.08	0.16	-0.51***	0.29**	-0.32***	-0.62***

$p^* = 0.08$, $**p < 0.05$ and $***p < 0.01$.

Measures

Leader–member exchange (LMX)

Individual LMX quality was measured using the 7-item LMX-7 scale (Graen and Uhl-Bien, 1995). Internal consistency for the sample was acceptable ($\alpha = 0.89$). Examples of the items included “My supervisor recognizes my potential” and “I would characterize my working relationship with my supervisor as extremely effective”. Responses were made on a 5-point Likert-scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Trust in teammates

The nine-item trust questionnaire developed by McAllister (1995) and adapted to sports settings by Dirks (2000) was used to assess team members’ perception of their trust in players (eight items). We measured trust in teammates using the same scale just adjusting the referent specified in the items to teammates. Respondents indicated how much they agreed or disagreed with each statement on a 5-point Likert-scale ranging from 1 (strongly disagree) to 5 (strongly agree). Sample items on this assessment included: ‘If I share my problems with teammates, I know they would respond constructively and with care’ and ‘I would feel a sense of loss if the teammate left to take a job elsewhere’. Coefficient alpha for this instrument at the individual level was 0.96, indicating that it was appropriate to aggregate the data.

Perceived LMX variability

As team size ranged up to 20 members, a short measure of perceived LMX variability was required. We used the single-item LMX distribution measure which was designed by Hooper and Martin (2008) to measure the perceived LMX variability. Participants were required to show the number of people in their team whose relationship quality with the leader could be described as either: “very poor” (1), “poor” (2), “satisfactory” (3), “good” (4) or “very good” (5). They were also asked to show how they would describe their own LMX relationship on this scale. According to the data collected from the LMX distribution measure, the perceived mean and standard deviation of LMX scores within the team can be calculated. Perceived LMX variability was obtained by computing the coefficient of variation, which involved dividing the standard deviation of LMX relationships within the team by the team mean as reported by the participant (Allison, 1978).

Turnover intentions

We used McKay et al. (2007) scale to measure turnover intentions. Sample items included ‘I hardly ever think about leaving; and it would take a lot to get me to leave the company’. Responses to the scale were scored in a 5-point Likert-scale ranging from 1 (strongly disagree) to 5 (strongly agree). Intention scores were recorded so that low scores denote lower intention to leave the firm. Coefficient alpha was 0.90, indicating that it was appropriate to aggregate the data.

Affective organizational commitment (AOC)

Across extant studies on OC, we found that various scales of affective organizational commitment were utilized. Fifty-two percent (52%) studies utilized the scales designed by Allen and Meyer (1990). Thirty-eight percent (38%) studies utilized the scales designed by Mowday et al. (1974). The surplus studies measured affective organizational commitment either with other validated scales (6%) or with new items created specifically for those studies (4%). Therefore, in this paper, we used the 8-item affective commitment scale developed by Allen and Meyer (1990). Each item was measured using a 5-point Likert-scale in which 5 indicated “strongly agree” and 1 indicated “strongly disagree. Coefficient alpha was 0.93 for this scale, indicating that it was appropriate to aggregate the data.

RESULTS

The means, standard deviations, and inter-correlations among variables in the sample above are presented in Table 1. In accordance with extant research, personal LMX quality was positively related to employee affective organizational commitment ($r = 0.55$, $p < 0.01$) and negatively related to turnover intentions ($r = -0.51$, $p < 0.01$).

Perceived LMX variability was negatively related to employee affective organizational commitment ($r = -0.27$, $p < 0.05$) and positively related to turnover intentions ($r = 0.29$, $p < 0.05$, supporting H_2), and negatively related to reports of personal trust in teammates ($r = -0.33$, $p < 0.01$, supporting H_1). LMX and perceived LMX variability

Table 2. Standardized betas for hierarchical regressions (N=225).

Variable	Analysis 1	Analysis 2	Analysis 3	Analysis 2	Analysis 3
	Trust in teammates	AOC	AOC	Turnover intentions	Turnover intentions
Gender	0.02	0.04	0.05	0.13	0.13
Age	0.05	0.05	0.04	0.10	0.12
Team size	-0.08	-0.09	-0.08	0.11	0.09
Dyad tenure	0.17	-0.25**	-0.21	-0.18	-0.17
Hours	0.18	0.17	0.13	-0.10	-0.05
LMX	0.04	0.48***	0.49***	-0.46***	-0.48***
LMX variability	-0.38***	-0.27**	-0.12	0.22*	0.13
Trust in teammates			0.19*		-0.23**
$R^2=$	0.19	0.38			
$F=$	1.98*	5.72***			
$R^2_{\text{changed}}=$			0.04		0.05
$F_{\text{changed}}=$			3.19*		4.58**

* $p < 0.08$, ** $p < 0.05$, *** $p < 0.01$.

were negatively related, which was significant in the sample ($r=-0.29$, $p < 0.05$). Specifically, as personal LMX increased, reports of perceived LMX variability decreased. Trust in teammates was positively associated with affective organizational commitment ($r=0.35$, $p < 0.01$) and negatively associated with turnover intentions ($r=-0.32$, $p < 0.01$, supporting H_3).

According to Baron and Kenny (1986), there have been four necessary conditions to identify the occurrence of mediation, which can be examined through a set of regression analyses. First, the independent variable (LMX variability) must affect the mediator (trust in teammates) [Analysis 1]; secondly, the independent variable (LMX variability) must affect the dependent variables (affective organizational commitment and turnover intentions) [Analysis 2]; thirdly, the mediator (trust in teammates) must affect the dependent variables (affective organizational commitment and turnover intentions) when controlling for the independent variable (LMX variability) [Analysis 3]; fourthly, the relationship between the independent variable (LMX variability) and the dependent variables (affective organizational commitment and turnover intentions) [Analysis 2] must either reduce or become non-significant when controlling for the mediator (trust in teammates) [Analysis 3]. In all these analyses, the variables were controlled: personal LMX, gender, age, team size, leader–employee dyad tenure and the number of hours worked per week. Table 2 shows the results of hierarchical regression analyses.

Analysis 1 indicates that perceived LMX variability was related to reports of personal trust in teammates ($\beta=-.38$, $p < .01$), which supports H_1 .

Analysis 2 indicates that perceived LMX variability was negatively related to affective organizational commitment ($\beta=-0.27$, $p < 0.05$) and positively related to turnover intentions ($\beta=0.22$, $p < 0.05$). These findings support H_2 that when controlling for personal LMX quality, perceived

LMX variability is negatively related to employee work attitude.

Analysis 3 indicates that, after controlling for perceived LMX variability, perceptions of trust within teams was positively related to affective organizational commitment ($\beta=0.19$, $p < 0.08$) and negatively related to turnover intentions ($\beta=-0.23$, $p < 0.05$), both of which support H_3 .

Condition 4 of mediation indicates that the initially significant relationship between perceived LMX variability and affective organizational commitment and turnover intentions (Analysis 2) reduced to be non-significant when controlling for personal trust in teammates (Analysis 3) for both affective organizational commitment ($\beta=-0.12$, ns) and turnover intentions ($\beta=0.13$, ns). Therefore, according to the findings from conditions 1 to 4, H_4 which states that the relationship between perceived LMX variability and work attitude would be mediated by reports of personal trust in teammates, was supported.

DISCUSSION AND CONCLUSION

This study was conducted to address the following question: How do leader-member exchanges differentiations within the work group affect employees' work performance and attitudes (Henderson et al., 2009)? Our result indicated that, as expected, perceived LMX variability accounts for additional variance in employee work attitude above that accounted for by personal LMX quality. Although, personal LMX quality was a strong predictor of employee attitude, perceived LMX variability was also related to employee affective organizational commitment and turnover intentions, and this relationship was mediated by reports of personal trust in teammates. Specifically, perceptions of LMX variability were associated with lower reports of personal trust in teammates, which was related to lower levels of

employee affective organizational commitment and high levels of turnover intentions.

The findings are consistent with the previous literatures on LMX quality and work attitude (Tremblay et al., 2010; Han and Jekel, 2011). Although, not a main focus of this paper, it is worth noting that personal LMX quality is a strong predictor of affective organizational commitment and turnover intentions. The results also align with the qualitative research of Sias and Jablin (1995), indicating that differential treatment of team members by a leader will lead to poor team communication and lower levels of trust and respect among coworkers, and align with the research by Hooper and Martin (2008), which indicates that perceived variability in LMX increases the conflict among team members and is negatively related to employee job satisfaction and well-being.

This research makes two important contributions to the leadership theory. First, little research has investigated the effects of perceived LMX variability on employee work attitude. Results from this research provide consistent evidence that perceived LMX variability has negative effects on personal trust in teammates and affective organizational commitment and positively effects on turnover intentions, beyond the impact of personal LMX quality, which validates repeated arguments made by LMX researchers that research needs to move beyond investigating LMX relationships in isolation of the surrounding social context (Gerstner and Day, 1997; Liden et al., 1997; Van Breukelen et al., 2002). Secondly, cross-cultural studies of LMX differentiation have been conducted in many countries such as Canada, Great Britain, Belgium, Australia, South Korea, and Singapore, this study extended research on LMX differentiation to Chinese context which made up for the inadequacy of the existing literatures and proved the effectiveness of LMX theory in China.

The results from this study have practical implications for leaders' decision-making within teams. Our findings provide evidence that the LMX differentiation impacts important outcomes through the intermediary mechanism of personal trust in teammates. The findings imply that leaders need to carefully handle different quality relationships among team members. In such teams requiring close collaboration of team members as R&D teams and scientific research teams, group solidarity is of primary importance and leaders may need to maintain an appearance of treating all team members equally. However, it is possible that in less interdependent teams, where individual performance is of greater importance than teamwork, differentiated LMX relationships may be more acceptable. Additionally, managers should be cautious about resource allocation within teams. Although, leaders need to allocate tangible resources (for example, information and funds) differentially among team members according to task requirements, leaders could be encouraged to distribute non-tangible resources (for example, respect and trust) equally among team

members, which has been proved in research by Martin and Harder (1994) indicating that leaders need to differentially distribute resources depending on resource type.

Although, this study makes a number of contributions to the extant literature, there are limitations that must be highlighted. The first limitation is the use of the use of cross-sectional self-report data. Although, individual perceptions were the focus of this research, making self-report methodologies a likely choice, the potential effects of cross-sectional data are a concern which would preclude causal inferences. Thus, future research that uses a longitudinal methodology will be particularly useful in establishing the causal status of the variables examined in this study.

The second limitation concerns that our sample may be considered somewhat unique, the generalizability of which might be questioned among the larger population. Hence, future research should replicate this study's findings with a more diverse sample.

Another limitation is that in this study, we just explore the mechanism between LMX differentiation and work attitudes through the mediating role of personal trust in teammates, not referring to the moderating effect of the context variables, which have been proved of significance in some literatures on LMX differentiation. Erdogan and Bauer (2010) draw on justice theory to examine group justice climate as a moderator of the relationship between LMX differentiation and outcomes. The result indicated that LMX differentiation was related to more negative work attitudes and coworker relations, and higher levels of withdrawal behaviors only when justice climate was low. Similarly, Hooper and Martin (2008) also claimed the importance of demographic diversity playing in the relationship between LMX variability and team relations. Specifically, it is possible that demographic diversity within a team is related to both LMX variability and team relations. Therefore, future research might build upon our findings to explore the moderating influence of perceived LMX variability on employee attitudes. As noted by Erdogan and Liden (2002), further work is needed in the LMX literature to uncover potential moderators of some of the more inconsistent findings regarding outcomes of LMX differentiation.

Finally, as mentioned previously, we were unable to conduct group-level analyses with the samples collected. Future research would benefit from examining these hypotheses at the work group level.

REFERENCES

- Allen NJ, Meyer JP (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organization. *J. Occup. Organ. Psychol.* 63:1–8.
- Allison PD (1978). Measures of inequality. *Am. Sociol. Rev.* 43: 865–880.
- Aryee S, Chen ZX (2006). Leader–member exchange in a Chinese context: Antecedents, the mediating role of psychological

- empowerment and outcomes. *J. Bus. Res.* 59(7):793–801.
- Avolio B, Zhu W, Koh W, Bhatia P (2004). Transformational leadership and organizational commitment: Mediating role of psychological empowerment role and moderating role of structural distance. *J. Organ. Behav.* 25(8):951–968.
- Baron RM, Kenny DA (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *J. Pers. Soc. Psychol.* 51:1173–1182.
- Bass BM (2002). The future of leadership in learning organizations. *J. Leadersh. Stud.* 7(3):18–40.
- Becker HS (1960). Notes on the concept of commitment. *A. J. S.* 66:32–42.
- Boies K, Howell JM (2006). Leader–member exchange in teams: An examination of the interaction between relationship differentiation and mean LMX in explaining team-level outcomes. *Leadersh. Q.* 17:246–257.
- Brower HH, Lester SW, Korsgaard MA, Dineen BR (2009). A closer look at trust between managers and subordinates: Understanding the effects of both trusting and being trusted on subordinate outcomes. *J. Manage.* 35:327–347.
- Burt C, Chmiel N, Hayes P (2009). Implications of turnover for safety attitudes and behavior in work teams. *Saf. Sc.* 47(7):1002–1006.
- Charles H, Schwepker Jr (2001). Ethical climate's relationship to job satisfaction, organizational commitment, and turnover intention in the salesforce. *J. Bus. Res.* 54:39–52.
- Chen CHV, Indartono S (2011). Study of Commitment Antecedents: The Dynamic Point of View. *J. Bus. Ethics.* 103(4):529–541.
- Cheng YQ, Stockdale MS (2003). The validity of the three-component model of organizational commitment in a Chinese context. *J. Vocat. Behav.* 62(3):465–489.
- Christina SC, Ai KC Au, Rick DH (2011). Trust as a mediator of the relationship between leader/member behavior and leader-member-exchange quality. *J. World. Bus.* in press.
- Costa AC, Roe RA, Taillieu T (2001). Trust within teams: The relation with performance effectiveness. *Eur. J. Work. Organ. Psychol.* 10:225–244.
- Dannhauser Z, Boshoff AB (2006). The relationships between servant leadership, trust, team commitment and demographic variables. *Servant. Leadersh. Res. Round. table* 6:1–14.
- Dansereau F, Graen GB, Haga WJ (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organ. Behav. Hum. Perform.* 13:46–78.
- Dienesch RM, Liden RC (1986). Leader–member exchange model of leadership: a critique and further development. *Acad. Manage. Rev.* 11:618–634.
- Dirks KT (2000). Trust in leadership and team performance: Evidence from NCAA basketball. *J. Appl. Psychol.* 85:1004–1012.
- Dirks KT, Skarlicki DP (2009). The relationship between being perceived as trustworthy by coworkers and individual performance. *J. Manage.* 35:136–157.
- Dittrich JE, Couger JD, Zawacki RA (1985). Perceptions of equity, job satisfaction, and intention to quit among data processing personnel. *Inf. Manage.* 9(2):67–75.
- Emberland JS (2010). Implications of job insecurity perceptions and job insecurity responses for psychological well-being, turnover intentions and reported risk behavior. *Saf. Sci.* 48(4):452–459.
- Erdogan B, Bauer TN (2010). Differentiated leader–member exchanges: The buffering role of justice climate. *J. Appl. Psychol.* 95:1104–1120.
- Erdogan B, Liden RC (2002). Social exchanges in the workplace. In: Neider LL, Schriesheim CA, editors (Eds.), *Leadership*. Greenwich: CT: Information Age Publishing, pp. 65–114.
- Ferres N (2001). The Development and validation of the workplace trust survey (WTS): Combining qualitative and quantitative methodologies. Master's dissertation. University of Newcastle, Australia.
- Gerstner CR, Day DV (1997). Meta-Analytic review of leader-member exchange theory: Correlates and construct issues. *J. Appl. Psychol.* 82:827–844.
- Geyskens I, Steenkampa JB, Lisa KS, Nirmalya K (1999). The effects of trust and interdependence on relationship commitment: A trans-Atlantic study. *Int. J. Res. Mark.* 13(4):303–317.
- Graen G, Novak MA, Sommerkamp P (1982). The effects of leader–member exchanges and job design on productivity and satisfaction: Testing a dual attachment model. *Organ. Behav. Hum. Perform.* 30:109–131.
- Graen GB, Uhl-Bien M (1995). Relationship-based approach to leadership: Development of leader–member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multidomain perspective. *Leadersh. Q.* 6:219–247.
- Han GH, Jekel M (2011). The mediating role of job satisfaction between leader-member exchange and turnover intentions. *J. Nurs. Manag.* 19(1):41–49.
- Harris KJ, Wheeler AR, Kacmar KM (2011). The mediating role of organizational job embeddedness in the LMX–outcomes relationships. *Leadersh. Q.* 22(2):271–281.
- Hempel PS, Zhang Z, Tjosvold D (2009). Conflict management between and within teams for trusting relationships and performance in China. *J. Organ. Behav.* 30:41–65.
- Henderson DJ, Liden RC, Glibkowski BC, Chaudhry A (2009). LMX differentiation: A multilevel review and examination of its antecedents and outcomes. *Leadersh. Q.* 20:517–534.
- Herda DN, Lavelle JJ (2011). The effects of organizational fairness and commitment on the extent of benefits big four alumni provide their former firm. *Account. Organ. Soc.* 36(3):156–166.
- Hooper DT, Martin R (2008). Beyond personal leader–member exchange (LMX) quality: The effects of perceived LMX variability on employee reactions. *Leadersh. Q.* 19:20–30.
- Hui C, Law K, Chen ZX (1999). A Structural equation model of the effects of negative affectively, leader–member exchange, and perceived job mobility on in-role and extra-role performance: a Chinese case. *Org. Behav. Human. Decis. Process.* 77:3–21.
- Kim WC, Mauborgne RA (1993). Procedural justice, attitudes, and subsidiary top management compliance with multinationals' corporate strategic decisions. *Acad. Manage. J.* 36:502–526.
- Law KS, Wong CS, Wang D, Wang L (2000). Effect of supervisor–subordinate guanxi on supervisory decisions in China: an empirical investigation. *Int. J. Hum. Resour. Manag.* 11:751–65.
- Leventhal GS (1980). *Social exchange: Advances in theory and research*. New York: Plenum press.
- Lewicki RJ, McAllister DJ, Bies RJ (1998). Trust and distrust: New relationships and realities. *Acad. Manage. Rev.* 23:438–458.
- Liden RC, Sparrowe RT, Wayne SJ (1997). Leader-member exchange theory: The past and potential for the future. *Res. Pers. Hum. Resour. Manage.* 15:47–119.
- Ma L, Qu Q. (2010). Differentiation in leader–member exchange: A hierarchical linear modeling approach. *Leadersh. Q.* 21:733–744.
- Manzoni J, Barsoux J (2002). *The Set-Up-to-Fail Syndrome: How good managers cause great people to fail*. Boston: Harvard Business School Press.
- Martin J, Harder JW (1994). Bread and roses: Justice and the distribution of financial and socioemotional rewards in organizations. *Soc. Justice. Res.* 7:241–264.
- Martin R, Thomas G, Charles K, Epitropaki O, McNamara R (2005). The role of leader-member exchanges in mediating the relationship between locus of control and work reactions. *J. Occup. Organ. Psychol.* 78:141–147.
- Mayer RC, Davis JH (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *J. Appl. Psychol.* 84:123–136.
- McAllister DJ (1995). Affect and cognition-based trust as foundations for interpersonal cooperation in organizations. *Acad. Manage. J.* 38:24–59.
- McKay PF, Avery DR, Tonidandel S, Morris MA, Hernandez M, Hebl MR (2007). Racial differences in employee retention: are diversity climate perceptions the key? *Pers. Psychol.* 60:35–62.
- Meyer JP, Allen NJ (1991). A three-component conceptualization of organizational commitment. *Hum. Resour. Manage. Rev.* 1:61–89.
- Mobley WH, Horner SO, Hollingsworth AT (1978). An evaluation of precursors of hospital employee turnover. *J. Appl. Psychol.* 63:408–414.
- Mowday RT, Porter LW, Steers RM, Boulian PV (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *J. Appl. Psychol.* 59:603–609.
- Naidoo LJ, Scherbaum CA, Goldstein HW, Graen GB (2011). A

- longitudinal examination of the effects of LMX, ability, and differentiation on team performance. *J. Bus. Psychol.* 26(3):347-357.
- Sherony KM, Green SG (2002). Coworker exchange: Relationships between coworkers, leader-member exchange, and work attitudes. *J. Appl. Psychol.* 87:542-548.
- Sias PM, Jablin FM (1995). Differential superior-subordinate relations, perceptions of fairness, and coworker communication. *Hum. Commun. Res.* 22:5-37.
- Smith JB, Barclay WB (1997). The effects of organizational differences and trust on the effectiveness of selling partner relationships. *J. Mark.* 61:3-21.
- Spence L, Heather K, Finegan, J, Shamian J, Wilk P (2001). Impact of Structural and Psychological Empowerment on Job Strain in Nursing Work Settings: Expanding Kanter's Model. *J. Nurs. Adm.* 31(5):260-272.
- Teng CI, Shyu YIL, Chang HY (2007). Moderating effects of professional commitment on hospital nurses in Taiwan. *J. Prof. Nurs.* 23(1):47-54.
- Tremblay M, Cloutier J, Simard G, Chênevert D, Vandenberghe C (2010). The role of HRM practices, procedural justice, organizational support and trust in organizational commitment and in-role and extra-role performance. *Int. J. Hum. Resour. Manag.* 21(3):405-433.
- Van Breukelen W, Konst D, Van Der Vlist R (2002). Effects of LMX and differential treatment on work unit commitment. *Psychol. Rep.* 91(1):220-230.
- Wakabayashi M, Graen G, Graen M (1988). Japanese management progress: Mobility into middle management. *J. Appl. Psychol.* 73:217-227.
- Zucker LG (1986). Production of trust: Institutional sources of economic structure. *Res. Organ. Behav.* 8:53-111.