

Supervisor–Subordinate *Guanxi*: Developing a Three-Dimensional Model and Scale

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ABSTRACT We develop a three-dimensional concept of supervisor–subordinate *guanxi*. This concept includes affective attachment, personal-life inclusion, and deference to supervisor. Based on this concept, we conducted three studies to develop and validate a three-dimensional supervisor–subordinate *guanxi* measure and to examine its relationship with related constructs, such as leader–member exchange. Results from Study 1 and Study 2 provide evidence of convergent and discriminant validity of the scale, while Study 3 demonstrates the scale’s incremental validity and replicates results from Study 2. Furthermore, in Study 3, we found that the three dimensions of supervisor–subordinate *guanxi* had different significant effects on commitment, turnover intention, and procedural justice, providing further evidence of criterion-related validity. Overall, these empirical results provide support for our three-dimensional model of supervisor–subordinate *guanxi*.

KEYWORDS *guanxi* scale, leader–member exchange, supervisor–subordinate *guanxi*

INTRODUCTION

In this study, we focus on an indigenous Chinese construct, supervisor–subordinate *guanxi*, defined as ‘a dyadic, particular and sentimental tie that has potential of facilitating favor exchanges between the parties connected by the tie’ (Bian, 2006: 312). Research on supervisor–subordinate *guanxi* has shown significant association with important work outcomes. Studies have found that Chinese supervisors may divide their subordinates based on *guanxi* (Cheng, Farh, Chang, & Hsu, 2002) and offer more bonus and promotion opportunities to those with whom they have good rather than poor *guanxi* (Law, Wong, Wang, & Wang, 2000). These subordinates, in turn, have greater trust in their supervisors and report better performance (Lin, 2002). Despite these important consequences, the study of *guanxi* has been impeded by the lack of a theoretically supported supervisor–subordinate *guanxi* scale.

Furthermore, no published *guanxi* scales have formal psychometric support, making it hard to respond to Galaskiewicz's (2007) call for more research on supervisor–subordinate *guanxi* patterns. In this study, we propose a multidimensional construct of supervisor–subordinate *guanxi* and develop a three-dimensional model based on Fiske's (1992) theory of social relations. We then develop and validate a three-dimensional supervisor *guanxi* measure that includes affective attachment, personal-life inclusion, and deference to supervisor. We compare this measure to two commonly used approaches for measuring *guanxi*: Law et al.'s (2000) unidimensional *guanxi* scale and Farh, Tsui, Xin, and Cheng's (1998) categorical *guanxi* scale. We further compare our multidimensional *guanxi* concept to the Western construct of leader–member exchange (LMX) to confirm that *guanxi* is distinct and separate from LMX.

THEORETICAL BACKGROUND AND HYPOTHESES

There are two basic approaches to *guanxi*: one is categorical, and the other is dynamic (Chen & Chen, 2004). The categorical approach views *guanxi* as given particularistic ties. For example, Tsui and Farh (1997: 56) defined *guanxi* as 'the existence of direct particularistic ties between two or more individuals', and they divided *guanxi* into three subtypes: family ties, familiar persons, and strangers. By contrast, the dynamic approach views *guanxi* as the general quality of the relationship (Wong, Tinsley, Law, & Mobley, 2003). In the literature, the quality of *guanxi* refers to the subjective assessment by the *guanxi* parties regarding the state of their personal relationship (Chen & Chen, 2004). The quality of *guanxi* is parallel to the notion of 'tie strength' in the network literature (Chen, Chen, & Xin, 2004).

Tsui and Farh's (1997) three-type category assumes a hierarchical order of the quality of the relationship with family first, familiar persons next, and strangers last. However, studies indicate that the relationship between family relations and *guanxi* is more complicated than the categorical view suggests. Recent research conducted in Hong Kong found a negative association between distant family relations and *guanxi*, which seems to suggest that the strength of family bonds is decreasing in Chinese societies (Chow & Ng, 2004). Through her fieldwork in mainland China, Y. Yang (2001) concluded that familiar ties can be more important than family ties in some circumstances. Based on these findings, it may be inaccurate to assume that any kind of family tie must be of higher quality than familiar ties. Instead of this categorical approach, we suggest treating *guanxi* as a continuous variable. A focus on the quality of the relationship may allow us to measure *guanxi* more accurately.

Focusing on the relationship's quality also has the added benefit of recognizing change in *guanxi* relations over time, that it is dynamic and can wax and wane within a given relationship. Anthropological studies (Fei, 1947/1992) have

provided support for the view that *guanxi* is elastic, not static. Empirical studies also have shown that the quality of the personal relationship can increase or decrease due to positive or negative incidents that happen when interacting (Chen & Peng, 2008). The fact that *guanxi* is changeable makes it problematic to measure *guanxi* based solely on the category of relationships.

Existing Measures of Supervisor–Subordinate *Guanxi*

Two measures of supervisor–subordinate *guanxi* have dominated the literature. One is based on the categorical view of *guanxi*, and the other adopts a unidimensional measure of *guanxi*. Applying a categorical approach, Farh et al. (1998) measured supervisor–subordinate *guanxi* using eight particularistic ties: former classmate, relative, same last name, same natal origin, former colleague, former teacher/student, former boss/subordinate, and former neighbour. This measure of supervisor–subordinate *guanxi* neglects the dynamic aspects of *guanxi* discussed above. Further, the eight categories may overlap; for example, having the same last name as one's supervisor may overlap with being related. In addition, these categories may not be exhaustive; other commonalities between supervisors and subordinates might include club membership (Chow & Ng, 2004) or party affiliation (Yi, 2002). In fact, we argue that it is impossible to exhaustively identify all possible categories due to *guanxi*'s elastic nature. These eight categories can be regarded as a foundation from which to initiate and build *guanxi*, but they do not provide a direct measure of the quality of supervisor–subordinate *guanxi*.

Law et al. (2000) developed a unidimensional measure of the quality of supervisor–subordinate *guanxi*, which stresses frequent social interactions between supervisors and subordinates in non-work settings. This measure captures the dynamic and changeable nature of *guanxi* but still has limitations for the following two reasons. First, the authors provided little theoretical foundation for their measure. Second, this measure does not differentiate *guanxi* as an affective relationship from *guanxi* as an instrument. With instrumental-oriented *guanxi*, subordinates may socialize with supervisors with little or no affect toward them. In such a case, the relationship would end or diminish when one party could no longer benefit instrumentally from the other party. By contrast, where there exists affect-oriented *guanxi*, subordinates socialize with supervisors (thus, they are close in their personal lives) but also have genuine sentiment (affective attachment), and their relationship would be sustained even if one party could not provide favours or instrumental rewards to the other. The unidimensional measure of supervisor–subordinate *guanxi*, although very useful, would be unable to capture the complication of such *guanxi* dynamics. In the next section, we develop a theory-based *guanxi* concept that allows for change in levels of *guanxi*.

A Multidimensional Measure of Supervisor–Subordinate *Guanxi*

We conceptualize the quality of supervisor–subordinate *guanxi* as the extent to which a contract-based supervisor–subordinate relationship (a kind of market pricing relationship with formal authority characteristics) transforms into a communal sharing relationship (Fiske, 1992). This is consistent with the notion that Chinese social relationships are characterized by familial collectivism (Bond & Hwang, 1986). Familial collectivism is defined as a set of values, beliefs, and their associated behavioural norms that take the family as a model for relationships in other domains of life, including supervisor–subordinate relationships (Yang, 1988). An important Chinese cultural characteristic and a central part of what it means to have *guanxi* is to extend kin-relationships to people who are not kin. This extension is termed the ‘familization’ or ‘pan-familization’ process (Yang, 1992). What happens when a work relationship becomes more family-like, especially for bosses and subordinates? The changes that occur form three dimensions of supervisor–subordinate *guanxi*: affective attachment, personal-life inclusion, and deference to supervisor.

Affective attachment. First, we suggest the relationship changes through interactions such that there is a greater degree of affective attachment. Affective attachment refers to an emotional connection, understanding, and willingness to care for one another in any circumstance. Prominent behavioural characteristics in a communal relationship include expressing emotions (Clark & Finkel, 2005), sharing, and providing non-contingent help (Clark & Mills, 1979). Related dominant attitudes in communal relationships are caring and altruism (Fiske, 1992). Members in a communal relationship treat each other as the same, focusing on commonality rather than differences. They engage in such behavioural patterns to receive social rewards for fulfilling their role obligations (Clark & Mills, 1993). In communal relationships, the parties are affectively attached to each other. Ethnographic studies conducted in China support the idea that *guanxi* has affective attachment (*ganqing*) components (Yang, 1994). The consensus among *guanxi* studies from our reading of the literature is that the parties’ level of affective attachment is an important indicator of the quality of *guanxi*. The intensity of affective attachment between supervisors and subordinates may vary from null to total involvement.

Personal-life inclusion. Second, we posit the relationship may change so that there is more personal life-inclusion between the subordinate and boss. Personal-life inclusion refers to the degree to which subordinates and supervisors are included in each other’s private or family lives. Chinese social relationships are characterized by a tendency to take family relationships as a model for other domains in life (Bond & Hwang, 1986; Yang, 1988). Ethnographic studies on the familization process show that relationships become personalized through participation in social activities such as sharing meals, exchanging gifts, and home visits (Kipnis, 1997; Yang,

1988). This is consistent with anthropological findings on communal relationships. Eating and drinking together, frequent interactions, and the number and diversity of domains in which parties interact are important factors that enhance a communal sharing relationship (Fiske, 1992). A contract-based supervisor–subordinate relationship can transform into a family model through increased personal-life inclusion, whether joint social activities or other related familial processes.

Deference to supervisor. Third, we argue the relationship is likely to change such that the subordinate is more obedient and devoted to the supervisor. Deference to supervisor refers to the degree of obedience and devotion a subordinate has toward his/her supervisor. According to findings from anthropological studies, in an authority relationship (such as that between a supervisor and subordinate), subordinates should show obedience and deference to authority (Fiske, 1991). Superiors, conversely, have obligations to protect subordinates and take care of them when they are in need (Fiske, 1992). However, the degree to which these norms are followed may vary between and within countries. In some low power distance cultures, such as the USA, norms related to authority are devalued whereas in some cultures with high power distance, norms related to authority are intensified (Hofstede, 1991). China has a high power distance culture, which implies that there exists a high level of power disparity between superiors and their subordinates and a high level of acceptance of such disparity (Leung, Su, & Morris, 2001). In Confucian philosophy, power disparity and related behavioural norms are explicitly stated. Confucian teaching stresses the value of authority in the form of filial piety to parents and devotion to superiors. Thus, while familization in Western culture may lead to less distance between the parties, in Chinese culture, it can lead to enhanced deference to the authority of those of higher status. Among the five cardinal relationships (*wu lun*) are the dyadic relationships between ruler–subject, father–son, husband–wife, elder brother–younger brother, and friend. Among these, only norms for friends are not subject to authority differentiation (Chen & Chen, 2004). This historical perspective is important because it highlights the power differences and behavioural norms that come from the familization process inherent in *guanxi*.

We propose the following:

Hypothesis 1. Supervisor–subordinate guanxi will have three components: affective attachment between supervisors and subordinates, personal-life inclusion, and deference to supervisor.

Supervisor–Subordinate *Guanxi* and Leader–Member Exchange (LMX)

Supervisor–subordinate *guanxi* is similar to LMX in that both highlight the importance of the quality of the relationship between a supervisor and a subordinate. However, beyond that broad similarity, the two vary in terms of the relationship's

foundation and in terms of how the relationship affects the parties involved. At the most basic level, Law et al. (2000) argued that LMX is restricted to work-related exchanges, while *guanxi* also focuses on non-work related exchanges. Going beyond this formulation, we argue that, although supervisor–subordinate *guanxi* and LMX are both grounded in social exchange, the ‘relational models’ (Fiske, 1992) they refer to are quite different, producing different reciprocity rules. The relational model in LMX theory is ‘equity-matching’; that is, LMX is based on the fair exchange of effort/performance and rewards between a supervisor and subordinate. By contrast, the relational model in *guanxi* is ‘communal sharing’, the building of strong personal obligations based on particularistic ties or sentimental ties between the parties involved.

Guanxi and LMX relational modes. Different cultures have different prototypical supervisor–subordinate relational modes (Khatri, 2007). In the Chinese context, the relational model of supervisor–subordinate interactions (which would typically start as contract-based economic exchange relationships) can transform into a ‘communal sharing’ mode via the familization process (Yang, 1992). In an individualistic culture such as the USA, where LMX was initially developed, transforming the supervisor–subordinate relationship into a family-like one is not as easily accepted as demonstrated by Weber’s (1904/1930) argument that the Protestant ethic prevents employees from mixing affective relations with business. Emotional concerns in business are seen as unprofessional. The supervisor–subordinate relationship can only legitimately transform into an ‘equity-matching’ relationship, where a supervisor’s support is based on an equity principle – only those who perform better get the benefits of favoured professional support from the supervisor. Subordinates, in turn, only provide enhanced performance for supervisors who provide them the necessary support. This contrasts sharply with the Chinese *guanxi* approach where, like in a family, subordinates are expected to show unreserved loyalty and obedience toward their superiors.

In LMX relationships, utility is significant since contribution and competence are important currencies (Dienesch & Liden, 1986) whereas *guanxi* can be congenital (Hui & Graen, 1997) and prescribed (Farh et al., 1998). Contribution and competence are desirable for *guanxi* but are not required or essential. Instead, the key components of *guanxi* are sentiment (*qing*, human feeling) and unconditional loyalty (or obligations), which are the core elements of family relations (Hwang, 1987). In effect, LMX focuses on personal ties created with respect to an individual’s work performance. *Guanxi* focuses on abiding more strongly to one’s work role obligations because of personal ties.

Hypothesis 2. The three dimensional structure of the supervisor–subordinate guanxi scale will have convergent validity with the unidimensional scale of guanxi and discriminant validity with leader–member exchange (LMX).

Effects of Three Dimensional *Guanxi* on Commitment, Turnover, and Justice

We argue that the three dimensional supervisor–subordinate *guanxi* concept has incremental validity compared to the concepts of categorical supervisor–subordinate *guanxi*, unidimensional supervisor–subordinate *guanxi*, and LMX in predicting affective commitment, turnover intention, and procedural justice perceptions. We chose these three criterion variables because previous research has examined the effects of supervisor–subordinate *guanxi* on commitment, turnover intention (e.g., Farh et al., 1998), and procedural justice perceptions (e.g., Chen et al., 2004) using the categorical measure of *guanxi*. By choosing the same dependent variables, we establish common ground to compare our new scale with the existing scales of supervisor–subordinate *guanxi* on these work outcomes.

Chinese supervisors have extensive control over resources and can impact employees' lives in various ways (Hui, Lee, & Rousseau, 2004). We expect that having good personal relationships with supervisors should be related positively to employees' affective commitment to their organizations while being related negatively to their intentions to quit. Regarding the relationship between *guanxi* and procedural justice perceptions, the group-value model (Tyler, 1994) indicates that the quality of the relationship an employee has with the group authority figure indicates the status of that employee within the group. A perceived high quality relationship with the authority figure can enhance employees' group pride and self esteem, which, in turn, can enhance their evaluations on fairness of procedures associated with the group (Tyler, 1994). Hence, we would expect that there is a positive relationship between supervisor–subordinate *guanxi* and procedural justice perceptions. Compared to the existing *guanxi* measures and LMX, we expect the three-dimensional *guanxi* measure can explain additional variance in predicting affective commitment, turnover intentions, and justice perceptions.

Hypothesis 3. The three-dimensional supervisor–subordinate guanxi scale will have incremental validity, compared to the categorical supervisor–subordinate guanxi scale and the unidimensional supervisor–subordinate guanxi scale, in predicting commitment, turnover intention, and justice perceptions.

To examine these three hypotheses, we conducted three studies in China. In the first study, we developed a three-dimensional supervisor–subordinate *guanxi* measure. Our second study assessed the discriminant validity of this scale and demonstrated its discriminant validity with LMX and convergent validity with Law et al.'s (2000) unidimensional scale. In the third study, we replicated the convergent and discriminant validity results from Study 2 and further examined the incremental validity of the scale by comparing it with the categorical *guanxi* scale (Farh et al., 1998), LMX (Liden & Maslyn, 1998), and the unidimensional *guanxi* scale (Law

et al., 2000) in predicting affective commitment, turnover intention, and procedural justice perceptions.

STUDY 1: SCALE DEVELOPMENT AND FACTOR ANALYSIS

Item Generation

Sample and procedure. Sample 1 consisted of 23 Chinese MBA students and seven Chinese employees. The group was 50 percent male and had an average age of 27.4 years with 3.5 years of working experience. We asked the MBA students to list 10 statements that best described the quality of supervisor–subordinate *guanxi* and the employees to list five such statements. We obtained from this process a total of 265 statements describing the quality of supervisor–subordinate *guanxi*.

Item screening. We followed the procedures outlined by Farh, Earley, and Lin (1997) in item screening. We engaged in a three-stage sorting process. In the first stage, we carefully combined very similar items into one category. Items that could be examples of other items were put together with these items. We eliminated overly vague items in which the relationship between the item and *guanxi* was very unclear. There were 113 items left.

In the next stage, three researchers reached a consensus about grouping the 113 items into four general categories: (i) outcomes of supervisor–subordinate *guanxi*; (ii) affective attachment; (iii) personal-life inclusion; and (iv) deference to supervisor. Since people may evaluate the quality of *guanxi* using its outcomes (Yang, C.F., 2001), it is not surprising that employees would use outcome-related criteria to evaluate supervisor–subordinate *guanxi*. In the *guanxi* outcome category, the criteria from the participants' statements mainly included promotion, important job assignments, frequent praise, and privileged benefits. Although supervisor–subordinate *guanxi* has effects that provide evidence of its very existence, these effects do not help us understand what supervisor–subordinate *guanxi* is. Therefore, we dropped the *guanxi* outcome category.

In the final sorting stage, we selected six to 10 statements from each category, choosing the most frequently mentioned items. The 24 representative statements constituted our original supervisor–subordinate *guanxi* items and appear in Table 1. All items were based on six-point Likert scales, with response options from 1 = strongly disagree to 6 = strongly agree. We used the six-point Likert scale because studies have shown that Chinese tend to choose the mid-point of the scale due to the Confucian 'doctrine of the mean' value (Chiu & Yang, 1987). By eliminating a mid-point, we hoped to reduce this central tendency bias.

Test of Dimensionality of the Items

Sample. We obtained responses to the 24 items from an independent sample of 386 employees from various organizations in Tianjin and Wuhan, two of the

Table 1. Exploratory factor analysis results of 24 items

<i>Items</i>	<i>Affective Attachment</i>	<i>Personal-life Inclusion</i>	<i>Deference to Supervisor</i>	
Retained Items				
1. My supervisor and I always share thoughts, opinions, and feelings toward work and life.	0.46	0.26	0.14	
2. I feel easy and comfortable when I communicate with my supervisor.	0.75	0.11	0.03	
3. I would feel sorry and upset if my supervisor decided to work for another company.	0.81	0.05	−0.03	
4. If my supervisor has problems with his/her personal life, I will do my best to help him/her out.	0.88	−0.07	−0.17	
5. I am willing to obey my supervisor unconditionally.	−0.09	0.00	0.93	
6. While I disagree with my supervisor, I would still support his/her decisions.	−0.11	0.19	0.67	
7. I am willing to give up my goals in order to fulfil my supervisor's goals.	0.10	−0.09	0.84	
8. I am willing to sacrifice my interests in order to fulfil my supervisor's interests.	0.21	0.28	0.43	
9. My supervisor would ask me to help him/her deal with some family errands.	−0.18	0.81	0.11	
10. During holidays, my supervisor and I would call each other or visit each other.	0.08	0.82	−0.06	
11. After office hours, I have social activities together with my supervisor, such as having dinner together or having entertainment together, which go beyond work duties.	0.02	0.93	−0.23	
12. I am familiar with the family members of my supervisor and have personal contact with these members.	−0.25	0.85	0.04	
Excluded Items				
13. I have a good personal relationship with my supervisor.	0.56	0.49	−0.15	Reasons for Exclusion Cross loading
14. I always have the same positions with my supervisors on the important issues.	0.48	−0.02	0.38	Cross loading
15. My supervisor would tell me some important issues or some things that are inappropriate for public discussion.	−0.08	0.64	0.25	Incorrect loading
16. I am willing to share my supervisors' burdens.	0.21	0.56	0.09	Incorrect loading
17. I greatly respect and defer to my supervisor.	0.88	−0.20	0.00	Incorrect loading
18. My supervisor always talks about me to his/her friends and family members.	0.40	0.35	0.14	Cross loading
19. My supervisor knows my character and personality well.	0.51	−0.18	0.45	Cross loading
20. I know my supervisor's hobbies and personal habits well.	0.44	0.28	0.07	Incorrect loading
21. I think my supervisor appreciates my competence.	0.55	0.24	0.08	Incorrect loading
22. I always please my supervisor to make him/her feel easy and relaxed when I do things for him/her, no matter if it is a big or small task.	0.73	−0.23	0.20	Incorrect loading
23. I always honestly report to my supervisors my true opinions on colleagues and work units.	0.82	−0.09	−0.11	Incorrect loading
24. I consider that my supervisor's honour is my honour.	0.79	−0.04	−0.02	Incorrect loading

Notes:

n = 386.

Incorrect loading means the item did not load on the factor for which it was originally intended.

most developed cities in China. The response rate was 90 percent. Employees in this sample had an average age of 35 years. The median education level was two years of college, and the median organizational tenure was five to eight years. Of the respondents, 88 percent were non-supervisory employees, and 39 percent were male.

Dimensionality factor analysis. A principal axis factor analysis with promax rotation resulted in three factors with eigenvalues greater than one, accounting for 65 percent of the total variance. We deleted items with cross-loadings on factors other than the intended factor. As recommended by Netemeyer, Bearden, and Sharma (2003), we also dropped the items with content that was inconsistent with other items loading on the same factor. The results revealed that we should retain 12 items (see Table 1). With these 12 items identified, we performed a confirmatory factor analysis (CFA) to provide comparative fit statistics for Studies 2 and 3.^[1] The CFA of the hypothesized measurement model showed acceptable results as shown in the columns labelled 'Study 1' of Table 2 (standardized root mean square residual [SRMR] = 0.06, comparative fit index [CFI] = 0.97, incremental fit index [IFI] = 0.97, $\chi^2 = 251.29$, d.f. = 51).

STUDY 2: CONVERGENT AND DISCRIMINANT VALIDITY OF THE MEASURE

Method

Sample. The survey sample used in this study included 133 government officers attending part-time MPA classes in Beijing, China. The median age range was 31–40 years, median tenure was five to eight years, and median education was four years of college. Of the respondents, 38.6 percent were non-supervisory employees, and 65.6 percent of employees were male.

Measures

Three-dimensional supervisor–subordinate guanxi. We used the 12 supervisor–subordinate *guanxi* items remaining from the initial factor analysis in Study 1 in this survey. The alphas of the three dimensions (i.e., affective attachment, personal-life inclusion, and deference to supervisor) were 0.89, 0.79, and 0.86, respectively.

Leader–member exchange. We used the 12-item LMX scale (Liden & Maslyn, 1998) to measure leader–member exchange. Our exploratory factor analysis (EFA) results show it is unidimensional. Consistent with Erdogan and Liden (2006) and Pellegrini and Scandura (2006), who identified one underlying dimension for LMX, we aggregated the LMX items into one scale. The alpha for LMX in this study was 0.95.

Table 2. Results of the confirmatory factor analysis for the multi-dimensional supervisor-subordinate scale in Study 1, Study 2, and Study 3

	<i>Affective Attachment</i>			<i>Personal-life Inclusion</i>			<i>Deference to Supervisor</i>		
	<i>Study 1</i>	<i>Study 2</i>	<i>Study 3</i>	<i>Study 1</i>	<i>Study 2</i>	<i>Study 3</i>	<i>Study 1</i>	<i>Study 2</i>	<i>Study 3</i>
Affective Attachment									
1. My supervisor and I always share thoughts, opinions, and feelings toward work and life.	0.76	0.89	0.80						
2. I feel easy and comfortable when I communicate with my supervisor.	0.73	0.92	0.87						
3. I would feel sorry and upset if my supervisor decided to work for another company.	0.81	0.74	0.78						
4. If my supervisor has problems with his/her personal life, I will do my best to help him/her out.	0.84	0.72	0.64						
Alpha	(0.89)	(0.89)	(0.85)						
Personal-life Inclusion									
1. My supervisor would ask me to help him/her deal with some family errands.				0.67	0.60	0.65			
2. During holidays, my supervisor and I would call each other or visit each other.				0.80	0.56	0.73			
3. After office hours, I have social activities together with my supervisor, such as having dinner together or having entertainment together, which go beyond work duties.				0.88	0.89	0.76			
4. I am familiar with the family members of my supervisor and have personal contact with these members.				0.83	0.74	0.80			
Alpha				(0.87)	(0.79)	(0.82)			
Deference to Supervisor									
1. I am willing to obey my supervisor unconditionally.							0.59	0.73	0.76
2. While I disagree with my supervisor, I would still support his/her decisions.							0.80	0.69	0.75
3. I am willing to give up my goals in order to fulfil my supervisor's goals.							0.83	0.89	0.88
4. I am willing to sacrifice my interests in order to fulfil my supervisor's interests.							0.81	0.86	0.76
Alpha							(0.84)	(0.86)	(0.87)

Notes:

Study 1: n = 386.

Study 2: n = 133.

Study 3: n = 209.

Unidimensional supervisor–subordinate guanxi. Law et al. (2000) developed a six-item unidimensional supervisor–subordinate *guanxi* scale, which we used. The alpha for that scale in this study is 0.84.

Results

Discriminant validity among supervisor–subordinate guanxi factors. To test discriminant validity among our supervisor–subordinate *guanxi* factors, we estimated fit indices of the hypothesized three-factor model, using LISREL's maximum likelihood procedure. We then compared the hypothesized model with four alternative models (three two-factor models and a one-factor model) (James, Mulaik, & Brett, 1982). The CFA of the hypothesized three-factor model of *guanxi* showed a good fit ($\chi^2 = 135.42$, d.f. = 51, $p < 0.001$; SRMR = 0.065, CFI = 0.96, IFI = 0.96). The three dimensions were strongly correlated with each other, ranging from 0.61 to 0.80. Comparisons of this three-factor model with two- and one-factor models, as shown in the upper section of Table 3, indicate that none of the dimensions were redundant. The change of χ^2 was significant, indicating a worse fit than the three-factor model. The structural loadings of the three-factor CFA are in the 'Study 2' columns of Table 2.

Table 3. Study 2: Discriminant validity analyses results

<i>Measurement Model</i>	χ^2	<i>d.f.</i>	$\Delta\chi^2$	<i>CFI</i>	<i>IFI</i>	<i>SRMR</i>
Discriminant analyses among three factors						
1. Three-factor baseline model	135.42	51		0.96	0.96	0.065
2. Two-factor model AA = DS	196.81	53	61.39***	0.93	0.93	0.067
3. Two-factor model AA = PL	207.80	53	72.38***	0.93	0.93	0.082
4. Two-factor model DS = PL	222.60	53	87.18***	0.92	0.920	0.088
5. One-factor model	266.74	54	131.32***	0.90	0.90	0.087
Discriminant analyses with LMX						
6. Baseline four-factor model	221.07	98		0.97	0.97	0.058
7. Three-factor model AA = LMX	237.25	101	16.18***	0.97	0.97	0.058
8. Three-factor model DS = LMX	253.69	101	32.62***	0.97	0.97	0.060
9. Three-factor model PL = LMX	297.83	101	76.76***	0.96	0.96	0.072

Notes:

n = 133.

*** $p < 0.001$.

AA, affective attachment; DS, deference to supervisor; PL, personal-life inclusion; LMX, leader–member exchange; d.f, degree of freedom; CFI, comparative fit index; IFI, incremental fit index; SRMR, standardized root mean square residual.

Discriminant validity with leader–member exchange. To test discriminant validity between our three-factor supervisor–subordinate *guanxi* model and LMX, we estimated the hypothesized four-factor model (three factors for *guanxi* and one for LMX). We then compared this hypothesized model with three alternative models. These alternative models tested whether LMX was different from any of the three *guanxi* factors. Since we already established that *guanxi* is best represented by three factors, it was not necessary to test other alternative models that included LMX. As shown in Table 3, significant χ^2 difference tests showed that the four-factor model fits better than all three alternative three-factor models, in which LMX is considered the same as one part of our *guanxi* model. The correlations between the three *guanxi* dimensions of affective attachment, deference to supervisor, and personal-life inclusion with LMX are 0.87, 0.81, and 0.57, respectively. These comparison tests suggest that most of the discriminant validity between the three dimensions of supervisor–subordinate *guanxi* and LMX is due to the personal life dimension. The change in χ^2 value is the largest when personal life is combined with LMX.

Convergent validity. One of the most common methods for establishing convergent validity is examining the correlations with constructs that should, based on theory or empirical findings, be significantly correlated. Since the new three-dimensional supervisor–subordinate measure and the unidimensional supervisor–subordinate measure developed by Law et al. (2000) are intended to measure the same construct, they should be highly correlated. Results show that the correlation between the new scale and the Law et al. scale is high, which provides support for convergent validity for the new three-dimensional supervisor–subordinate scale. The correlations between Law et al.’s supervisor–subordinate *guanxi* scale and affective attachment, personal-life inclusion and deference to supervisors were 0.59, 0.85, and 0.51, respectively ($p < 0.001$ for all correlations).

STUDY 3: REPLICATION OF STUDY 2 AND TESTS OF INCREMENTAL VALIDITY

Methods

Sample. The survey sample used in this study included 209 employees from 12 firms in China. The median age range was 31–40 years, median tenure was five to eight years, and median education was three years of college. Of the respondents, 57.8 percent of employees were male, and 93 percent were non-supervisory employees.

Measures

*Three-dimensional supervisor–subordinate *guanxi*.* The same 12-item supervisor–subordinate *guanxi* scale we developed was used. Alphas for affective attachment, personal-life inclusion, and deference to supervisor were 0.85, 0.82, and 0.87, respectively (see Table 2, the ‘Study 3’ columns).

Leader–member exchange. We used the same 12-item LMX scale (Liden & Maslyn, 1998) to measure leader–member exchange. As in Study 2, LMX was treated as a unidimensional measure. The alpha for LMX in this study was 0.95.

Categorical supervisor–subordinate guanxi. We used Farh et al.'s (1998) eight categories to measure supervisor–subordinate *guanxi*. No respondent reported the categories of 'former classmate' and 'former teacher/student', so these categories were dropped. If a dyad fell into any of the remaining six categories, that category was coded as 1; otherwise, it was coded as 0.

Affective commitment. We measured commitment using a six-item scale from Mowday, Steers, and Porter (1979). Each item was measured on a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. A sample scale item was: 'I am proud to tell others that I am part of this organization'. The scale's alpha in this study is 0.89.

Turnover intentions. A two-item scale by Camman, Fichman, Jenkins, and Klesh (1979) was used to measure turnover intentions. Each item was measured on a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. The two items were 'I often think about quitting my job with my present organization' and 'I will probably look for a new job within the next year'. In this study, the alpha for this scale is 0.89.

Procedural justice. We used an abbreviated three-item version of a scale by Moorman (1991) that reflects the presence of formal procedure being adopted by supervisors in decision-making. A sample item was: 'Job decisions are made by my supervisor in an unbiased manner'. The scale's alpha reliability for this study is 0.91.

Control variables. Four subordinate demographic variables – age, sex, education, and organization tenure – were included as control variables in this study. They were included because previous research has shown that these demographics might be associated with commitment, justice perception, and turnover intentions (e.g., Chen & Francesco, 2000; Lee & Farh, 1999). Age was measured by six categories ranging from under 20, 21–30, 31–40, 41–50, 51–60, to over 60. Male was coded as 1 and female as 2. Education was measured by five categories: below high school, high school, three-year college, four-year college, and Master's degree or above. Organization tenure was measured by six categories ranging from below 2 years, 2–5 years, 5–8 years, 8–12 years, 12–18 years, and over 18 years.

Results

Discriminant validity among supervisor–subordinate guanxi factors. As in Studies 1 and 2, a CFA confirmed that our proposed three-factor model fit the data well ($\chi^2 = 241.32$,

Table 4. Study 3: Replication of discriminant validity analyses results

<i>Measurement Model</i>	χ^2	<i>df.</i>	$\Delta\chi^2$	<i>CFI</i>	<i>IFI</i>	<i>SRMR</i>
Discriminant analyses among three factors						
1. Three-factor baseline model	140.09	51		0.97	0.97	0.06
2. Two-factor model AA = DS	242.37	53	101.47***	0.93	0.93	0.08
3. Two-factor model AA = PL	309.21	53	169.12***	0.90	0.90	0.10
4. Two-factor model DS = PL	382.03	53	241.94***	0.87	0.87	0.13
5. One-factor model	434.08	53	293.99***	0.85	0.85	0.12
Discriminant analyses with LMX						
1. Baseline four-factor model	212.19	98		0.98	0.98	0.062
2. Three-factor model AA = LMX	277.03	101	64.84***	0.96	0.96	0.066
3. Three-factor model DS = LMX	264.41	101	52.22***	0.96	0.96	0.071
4. Three-factor model PL = LMX	434.33	101	222.14***	0.93	0.93	0.110
Discriminant analysis among eight constructs						
1. Baseline eight-factor model	1925.49	674		0.95	0.95	0.09
2. Three-factor model (3 dimensions of <i>guanxi</i> = 1 factor, unidimensional <i>guanxi</i> = 1 factor, and LMX three outcomes as 1 factor)	3604.94	699	1679.45***	0.89	0.89	0.13
3. One-factor model	3672.94	702	1747.45***	0.89	0.89	0.13

Notes:

n = 209.

***p < 0.001.

AA, affective attachment; DS, deference to supervisors; PL, personal-life inclusion; LMX, leader–member exchange; d.f, degree of freedom; CFI, comparative fit index; IFI, incremental fit index; SRMR, standardized root mean square residual.

d.f. = 51, p < 0.001; SRMR = 0.065, CFI = 0.97, IFI = 0.97), and additional model comparisons showed that one- and two-factor models were significantly worse than the three-factor model (see top panel of Table 4). Factor loadings of this three-factor model are in the ‘Study 3’ columns of Table 2.

Discriminant validity with leader–member exchange. The results obtained in Study 2 on discriminant validity with leader–member exchange were replicated in Study 3. The four-factor measurement model fit better than all the alternatives in terms of χ^2 differences, reconfirming that the three factors of supervisor–subordinate *guanxi* are not redundant with LMX (see the middle panel of Table 4).

Convergent validity. In this sample, the correlations between Law et al.’s (2000) supervisor–subordinate *guanxi* scale and affective attachment, personal-life

inclusion, and deference to supervisor were 0.63, 0.87, and 0.43, respectively. The results were similar to the results in Study 2. Thus, we replicated our conclusion in Study 2 about the convergent validity of the multidimensional supervisor–subordinate *guanxi* scale.

Overall discriminant validity. To ensure that each of the scales measure distinct constructs, we completed a confirmatory factor analysis on all eight constructs examined in Study 3 (three dimensions of *guanxi*, unidimensional *guanxi*, LMX, affective commitment, turnover intention, and procedural justice). This eight-factor model had a CFI of 0.95, SRMR of 0.09, which shows overall good fit according to the criteria laid out by Hu and Bentler (1999). Additional analyses show that this model fits significantly better than other alternatives. Thus, an eight-factor model fits the data best (see the bottom panel of Table 4).

Table 5 presents descriptive statistics and intercorrelations of all variables for the incremental validity test. Table 5 shows that the three dimensions of *guanxi* are all positively correlated to procedural justice perceptions and affective commitment. Affective attachment and deference to supervisor are negatively correlated to turnover intention whereas personal-life inclusion is positively correlated to turnover intention. It is noteworthy that none of the categorical variables reflecting *guanxi* individually related to the three dimensions of supervisor–subordinate *guanxi* or most of the outcome measures.

Incremental validity. In order to test the incremental validity of the three-dimensional *guanxi* model, we conducted a hierarchical regression to compare it with the unidimensional and categorical supervisor–subordinate *guanxi* scales and with LMX when predicting commitment, turnover intentions, and procedural justice (see Table 6). Looking at Table 6, when compared to the previous measures (using commitment as an example, model 2 is compared with model 1, model 4 is compared with model 3, and model 6 is compared with model 5) the three-dimensional measure explains additional variance for all three dependent variables (models 2, 4, and 6 for commitment; 9, 11, and 13 for turnover intention; and 16, 18, and 20 for procedural justice). Moreover, after controlling for unidimensional *guanxi*, categorical *guanxi*, and LMX (this comparison model is not included in Table 6), the three dimensions of *guanxi* entered as a block into the final models account for 3 percent of additional variance when predicting affective commitment (model 7), 8 percent of additional variance when predicting turnover intentions (model 14), and 4 percent of additional variance when predicting procedural justice perceptions (model 21).

In terms of coefficients, all three elements of our three-dimensional *guanxi* measure are significantly related to affective commitment, turnover intentions, and/or procedural justice perceptions. The directions of the coefficients are as expected in the three final models, with the exception of personal-life inclusion, which has an unanticipated positive relationship with turnover intentions (models 11 and 13) and

Table 5. Means, standard deviations, and intercorrelations for all variables in the incremental validity test in Study 3

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Age	3.1	0.81																		
2. Sex	1.42	0.50	-0.08																	
3. Education	3.3	0.75	-0.08	0.02																
4. Tenure	5.95	5.17	0.70**	0.04	-0.15**															
5. Unidimensional <i>guanxi</i>	3.40	1.11	0.09	-0.09	-0.06	0.07	(0.84)													
6. Relative	0.00	0.07	-0.18**	0.08	0.06	-0.07	-0.04													
7. Same last name	0.02	0.14	0.02	-0.05	0.13	0.06	0.05	-0.01												
8. Same natal origin	0.04	0.19	-0.03	0.03	0.04	0.03	-0.06	-0.01	-0.03											
9. Former colleague	0.10	0.30	0.19**	-0.06	-0.09	0.17*	0.05	-0.02	-0.05	-0.07										
10. Former supervisor/ subordinate	0.11	0.31	0.00	-0.05	-0.03	0.11	0.11	-0.03	-0.05	0.01	0.34**									
11. Former neighbour	0.03	0.18	0.00	0.06	-0.05	-0.06	0.08	-0.01	-0.03	0.10	0.12	0.10								
12. LMX	5.08	0.94	0.08	0.05	0.05	0.01	0.47**	0.04	-0.06	-0.02	0.11	0.16*	0.09	(0.95)	0.87**	0.35**	0.82**	0.57***	-0.11	0.81**
13. Affective attachment	4.81	1.11	0.15*	0.07	-0.04	0.05	0.63**	-0.04	-0.04	0.00	0.11	0.14	0.11	0.81**	(0.85)	0.57**	0.78**	0.51***	-0.14*	0.82**
14. Personal-life inclusion	3.16	1.36	0.10	-0.10	-0.02	0.07	0.87**	-0.05	0.07	-0.10	0.07	0.12	0.16*	0.35**	0.51**	(0.82)	0.39**	0.24***	0.12	0.34**
15. Defiance to supervisor	4.80	1.05	0.09	0.02	0.04	0.02	0.43**	0.01	-0.10	0.08	0.13	0.12	0.11	0.78**	0.65**	0.34**	(0.87)	0.57***	-0.22**	0.71**
16. Commitment	4.25	0.93	0.29**	0.08	0.18**	0.10	0.23**	-0.04	-0.03	0.13	0.04	-0.09	0.03	0.51**	0.45**	0.20**	0.508**	(0.89)	-0.34***	0.57***
17. Turnover intention	1.88	1.20	0.08	-0.01	-0.02	0.06	0.16*	0.10	0.10	-0.07	-0.04	0.14	-0.05	-0.06	-0.07	0.19**	-0.17*	-0.28**	(0.89)	-0.11
18. Procedural justice	4.92	1.14	0.16*	0.08	0.07	0.08	0.44**	0.05	-0.12	-0.01	0.10	0.16*	0.14*	0.78**	0.74**	0.31**	0.62**	0.51**	-0.067	(0.91)

Notes:

n = 209.

*p < 0.05; **p < 0.01; ***p < 0.001.

Numbers on the diagonal in parentheses are Cronbach's alphas for each variable. Raw scale correlations are shown in the lower diagonal. Factor correlations of unidimensional *guanxi* with leader-member exchange, commitment, three dimensional *guanxi* (affective attachment, personal-life inclusion, defiance to supervisor), turnover intention, and procedural justice perceptions are shown in the upper diagonal.

LMX, leader member exchange; SD, standard deviation

Table 6. Results for the incremental validity test in Study 3

		Dependent Variables																			
		Affective Commitment										Procedural Justice Perceptions									
		Turnover Intention					Model 14					Model 15					Model 16				
model		model	model	model	model	model	model	model	model	model	model	model	model	model	model	model	model	model	model	model	model
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
Control variables																					
Age	0.43***	0.36***	0.44***	0.34**	0.37***	0.36***	0.04	0.11	0.16	0.21	0.02	0.05	0.19	0.15	0.00	0.20†	-0.01	0.08	0.04	0.05	
Sex	0.17*	0.11	0.12	0.08	0.11	0.09	0.02	0.07	0.05	0.10	0.01	0.08	0.13	0.11	-0.02	0.09	-0.03	0.07	0.04	0.01	
Education	0.21**	0.21**	0.15*	0.17*	0.16*	0.19**	-0.06	-0.06	-0.08	-0.09	-0.10	-0.10	-0.13	0.09	0.09†	0.06	0.11*	0.06	0.08	0.11†	
Tenure	-0.17†	-0.12	-0.17	-0.10	-0.12	-0.13	0.00	-0.04	-0.09	-0.14	0.00	-0.02	-0.13	-0.05	0.06	-0.06	0.09†	0.02	0.04	0.07	
Unidimensional	0.25***	0.14			0.07	0.12	0.18					0.20	0.46***	0.12						0.16	
guanxi																					
Categorical guanxi																					
Relative			0.01	-0.01		-0.02			0.14	0.15*			0.14†			0.07	0.07			0.05	
Same last name			-0.03	0.03		0.04			0.13†	0.11			0.12			-0.15*	-0.09			-0.10*	
Same natal origin			0.14*	0.11†		0.13†			-0.05	-0.01			0.02			-0.03	-0.06			-0.04	
Former colleague			0.04	0.01		0.05			-0.10	-0.08			-0.07			0.00	-0.03			-0.04	
Former supervisor/ subordinate			-0.09	-0.15*		-0.17*			0.17*	0.18*			0.18*			0.15†	0.05			0.04	
Former neighbour			-0.00	-0.04		0.02			-0.05	-0.07			-0.09			0.12	0.09†			0.07	
LMX						0.40***			0.10	0.16			0.30							0.76***	
Three dimensional																					
guanxi																					
Affective attachment	0.13		0.17*		0.10	0.06	-0.16		-0.13		-0.29*		-0.33*		0.61		0.64***		0.31***	0.33***	
Personal-life inclusion	-0.12		0.02		0.01	-0.04	0.14		0.24**		0.31***		0.19		-0.16†		-0.13*		-0.04	-0.18*	
Deference to supervisor	0.31***		0.31***		0.29**	0.25*	-0.21*		-0.18†		-0.37***		-0.33*		0.23***		0.22***		0.06	0.02	
Largest VIF	2.05	2.48	2.20	2.40	2.15	4.01	5.31	2.04	5.22	2.18	2.38	2.14	4.5	5.33	2.04	2.17	2.36	2.14	3.94	5.24	
ΔR ²	0.12***	0.19***	0.19***	0.04*	0.03†	0.09**	0.07**	0.07**	0.07**	0.07**	0.13***	0.08***	0.36***	0.36***	0.36***	0.36***	0.49***	0.49***	0.03*	0.04***	
Overall R ²	0.22	0.34	0.17	0.36	0.30	0.34	0.38	0.02	0.11	0.07	0.14	0.01	0.014	0.20	0.23	0.60	0.01	0.59	0.60	0.64	
Adjusted R ²	0.19	0.31	0.12	0.31	0.28	0.31	0.32	0.00	0.06	0.01	0.07	0.00	0.09	0.12	0.21	0.58	0.05	0.56	0.59	0.62	
Overall model F	9.35***	10.59***	3.48***	3.94***	14.06***	10.42***	6.16***	0.75	2.48*	1.23	2.06*	0.37	3.27**	2.54**	10.59	16.76	1.93*	18.94***	51.79***	36.45***	

Notes:
 n = 209.
 *p < 0.05, **p < 0.01, ***p < 0.001. †p < 0.10.
 LMX, leader-member exchange; VIF, variance inflation factor.

a negative relationship with procedural justice (models 16, 18, and 21). Apparently, this aspect of *guanxi* may be experienced as a burden by employees, after parcelling out the beneficial effects of affective attachment and deference to supervisor.^[2]

In summary, our results support the three-dimensional conceptualization of *guanxi* and the scale developed to measure it. This measure of *guanxi* has demonstrated incremental validity compared to unidimensional, categorical supervisor–subordinate *guanxi* scale, and LMX in predicting commitment, turnover intention, and procedural justice perceptions, providing further evidence for criterion-related validity.

Post-hoc Analysis

In order to better understand the negative coefficients on the personal-life inclusion dimension, we examined possible interaction effects between the three dimensions of *guanxi* in a post-hoc analysis.^[3] We found personal-life inclusion moderates the relationship between deference to supervisor and affective commitment such that the relationship is weaker when personal-life inclusion is high (interaction coefficient $\beta = -0.82$, $p < 0.05$). It appears that increased personal-life inclusion dampens the beneficial impact of deference to supervisor on commitment. As with our main effects reported above, employees may not appreciate personal-life inclusion.

DISCUSSION

Given that supervisor–subordinate *guanxi* has been treated as a unidimensional construct in organizational research, the goal of this research was to assess the proposition that supervisor–subordinate *guanxi* is a multi-dimensional construct. We treat *guanxi* as a pseudo-family relationship and conceptualize the quality of supervisor–subordinate *guanxi* as the extent to which contract-based economic exchange relationships are transformed into communal-sharing relationships with authority characteristics. Two dimensions of *guanxi*, affective attachment and personal-life inclusion, reflect characteristics of communal sharing. The other dimension, deference to supervisor, reflects the characteristic of authority inherent in supervisor–subordinate relationships in collectivistic cultures with high power distance.

Results from Study 2, with replications in Study 3, show that the three-dimensional supervisor–subordinate *guanxi* scale has convergent and discriminant validity. Study 3 shows that this new three-dimensional measure also has incremental validity in predicting organizational commitment, turnover intentions, and perceptions of procedural justice when compared to the unidimensional and categorical supervisor–subordinate *guanxi* scales and to LMX. In summary, this research provides strong evidence that our 12-item scale is a conceptually and statistically valid measure of supervisor–subordinate *guanxi*.

Theoretical Contributions

The current research makes two major theoretical contributions. First, we expand theorization about *guanxi*, explaining what mechanisms make *guanxi* influential in Chinese supervisor–subordinate relations. It is not only similarities in background that drive supervisor–subordinate relations, as the categorical approach to *guanxi* suggests, but also the development of a relationship with certain levels of respect and emotional closeness. This conceptualization of *guanxi* allows scholars to recognize and study the evolution of *guanxi* within teams and organizations, which is precluded by the categorical approach. Also, while social interaction is an important part of *guanxi*, it is not only these interactions in themselves that affect workplace relations, as suggested by the unidimensional measure of *guanxi*, but also the strength of personal affect and the respect subordinates feel for the hierarchical authority of the supervisor. Conceptualizing *guanxi* merely in terms of the one dimension identified by Law and colleagues (2000) would prevent such insights.

Second, our theoretical model clarifies how and why *guanxi* differs from LMX, even though both focus on aspects of social exchange. LMX focuses primarily on work exchange, while *guanxi* represents the infusion of family-like relations into work relations. This includes both strong affective attachment and deference to hierarchy inherent in Chinese family structures. Social exchange in LMX theory implies an exchange of freedom in return for quality of work, while *guanxi* theory implies an exchange of role adherence (including commitment to job, organization, and power of the supervisor) in return for being included as a family-like member.

Limitations and Future Research Directions

There are several limitations in this study. First, we obtained the data at one point in time; thus, the cross-sectional nature limits causal assertions. Second, the data for Study 3 come from state-owned firms, which may have special characteristics that impact our results. Future research should consider conducting studies in firms of other ownership types, such as foreign-owned companies or private firms, to ensure the generalizability of this study's research findings. Third, while our variance inflation factor (VIF) values were below the cut-off threshold, suggesting the absence of harmful multicollinearity in the data, individual coefficients in Study 3 should be interpreted with caution because of possible multicollinearity. Fourth, variables in our survey studies come from the same source, which may raise concerns about common method variance. However, Harman's one-factor test, often used to investigate the prevalence of method effects (Podsakoff & Organ, 1986), suggested that a single common-method factor was not driving the results. Although this test does not rule out the existence of common method variance, it can increase confidence in the interpretations since it ruled out extreme cases of common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Still,

if applicable, future studies should collect data at several different times as suggested by Podsakoff and his coauthors (2003).

Future research should engage in cross-cultural examinations of the impact of the familization process. We speculate that familization practices between supervisors and subordinates are more likely to be associated with cronyism in collectivistic cultures than in individualistic cultures. Collectivist cultures emphasize developing personal relations with and loyalty to superiors, which is reinforced by superiors' favourable treatment toward in-group members. Moreover, we conjecture that familization-based cronyism is more acceptable and tolerated in collectivist cultures than in individualist cultures. It is also desirable to study cross-cultural differences of *guanxi*'s effects on work outcomes. Interdependent self theory (Markus & Kitayama, 1991) indicates that, in collectivist cultures, relationships are valued more than autonomy while, in individualistic cultures, people value autonomy more than relationships. This difference in self theories also contributes to differences in the familization process in Chinese versus Western cultures. In Western cultures, we speculate that the positive effects of personal relationships between supervisor and subordinates would be constrained whereas the negative effects of such relationships would be amplified.

We also recommend studying the conditions under which *guanxi* is important in Chinese societies. There is a recent debate on whether *guanxi* is increasing or decreasing in its importance in modern Chinese work settings. For example, Guthrie (1998) argues that, with the development of legal, rational systems in China, *guanxi*'s significance has diminished whereas Yang (2002) argues that *guanxi* should be treated as a cultural pattern that will continually transform and shape new social institutions and social structures. We think it is possible that the importance of *guanxi* may decline in some social domains but flourish in new domains with changing formats and practices.

Managerial Implications

Our research has two important practical implications for decision makers in Chinese organizations. First, Chinese managers should be aware that involvement with subordinates in close social interactions that go beyond job duties may have possible negative effects on employees' work attitudes. Managers should be cautious about socializing with employees during non-work hours involving non-work-related activities. If engaging in non-work-related behaviour with managers is essential to ensuring high quality supervisor–subordinate *guanxi* and related rewards, employees may feel it as a burden and increase their perception of unfairness, particularly when they have no genuine affective attachment or deference to their superiors. Another study (Chen, Friedman, Yu, & Sun, 2008) showed that when *guanxi* is systematically used in managerial decisions, employees' perceptions of fairness decrease even for those who have *guanxi* with supervisors.

A second practical implication is that categorical *guanxi* may be declining, even while variable *guanxi* is still quite strong. The relatively weak effects of categorical *guanxi* on work outcomes suggest that coming from the same village or sharing the same last name may no longer be enough to trigger strong relational effects. Thus, while *guanxi* still exists, it may be more flexible and uncertain. Indeed, it is much more of a social exchange – with subordinates following only when they truly respect the supervisor and feel personal connections – than in the past, where obligations occurred based not on supervisors' character, but rather simply on who the parties were. If managers want to amplify or contain *guanxi*, they need to look beyond hometowns and last names toward the strength of personal ties.

CONCLUSION

We presented a three-dimensional supervisor–subordinate *guanxi* scale and demonstrated its convergent, discriminant, and incremental validities. The findings deepen our understanding of the components of supervisor–subordinate *guanxi* and its positive and negative effects on work outcomes. Given the importance and prevalence of *guanxi* practice in China, this research offers direct implications on how managers interact with employees and how organizations should establish human resource management policies to prevent possible negative effects of personal-life involvement between managers and employees.

NOTES

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- [1] Overall model fit was assessed by using three fit indices, including the SRMR, CFI, and IFI. The CFI and IFI are relatively stable in small samples, while being sensitive to the misspecified measurement models (Hu & Bentler, 1999). The SRMR is more readily used to detect complex models and also is less sensitive to small sample sizes (Hu & Bentler, 1999).
- [2] It is worth noting the change in sign between the zero-order correlation and the regression coefficient in model 21, Table 6. The zero-order correlation between personal-life inclusion and procedural justice perception is positive and significant while we found there was a significant negative relationship between these two variables in our regression analyses. Although a change in sign like this may indicate an issue of multicollinearity, in model 21, the maximum VIF value is 5.24, which was below the problematic level of 10 (Wetherill, 1986), suggesting the absence of multicollinearity in the data.
- [3] We thank the reviewer who made this suggestion.

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