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EFFECTS OF FACE AND GUANXI ON INDIVIDUAL KNOWLEDGE-SHARING INTENTION

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It is not clear at present why Chinese people's concern about face hinders the free flow of knowledge in an organizational setting, which key factors contribute to this relationship, and what conditions are necessary for this effect to occur. We applied expectancy theory to examine the specific role of face in both knowledge sharing and guanxi. Participants were 291 Master of Business Administration students, and we applied structural equation modeling to the collected data to thoroughly analyze the direct and indirect effects between factors. Results showed that stronger guanxi between 2 parties was associated with both parties caring less about face. Further, the expectancy of individuals to realize specific knowledge-sharing goals and a good organizational climate, rather than the formal organizational system, were also found to play a role in willingness to share knowledge. Finally, we found that face motivations varied across individuals.

Keywords: face, face expectancy, knowledge sharing, knowledge-sharing intention, knowledge management, guanxi, organizational climate.

Although knowledge sharing is critical in knowledge management (Wang & Noe, 2010), it is not a natural behavior and it needs to be encouraged rather

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than forced (Amayah, 2013). Researchers have proposed several specific solutions for encouraging knowledge sharing from different perspectives, such as organizational systems (Lin & Lo, 2015), and organizational culture and climate (Swift & Hwang, 2013). However, the applicability of these solutions is still questionable in emerging markets, and especially in China, where people's concern with face hinders the free flow of knowledge (Huang, Davison, & Gu, 2011). Knowledge owners are inclined to withhold knowledge or skills in order to keep face and avoid sharing their failures. However, there are also positive aspects to the face concept; for example, knowledge owners may actively contribute knowledge, provide information, or speak without reservation to win face (Huang et al., 2011).

However, previous researchers have not explained why face affects knowledge sharing, which factors influence the face concept, and what conditions are necessary for face to have such an effect. Face, as a learned motive (Ho, 1994), can activate, guide, and sustain specific behaviors. In accordance with Vroom's (1964) expectancy theory—whereby it is anticipated that individuals will behave in a certain way because the result of that behavior is expected—we analyzed the specific role of face in knowledge sharing.

Prior researchers have reached the consensus that the relationship between two interacting parties is the key precondition affecting the face perception of interacting subjects (Huang et al., 2011); however, these empirical findings have not been statistically significant (Oetzel & Ting-Toomey, 2015). On the other hand, politeness theory holds that the face threat perceived by individuals is positively correlated with the social distance between the two interacting parties (Brown & Levinson, 1987), and that psychological intimacy may reduce the negative perception of face. In this study, we examined how guanxi between knowledge owners and their colleagues influences the role and effect of face during the process of knowledge sharing.

Literature Review

Face

Face is the image one projects in a particular context (Goffman, 1982). It can be presented as a specific public image that is displayed to others (Spencer-Oatey, 2007) or as self-image (Brown & Levinson, 1987), and generally manifests as saving, losing, or keeping face.

According to the self-value of face representation, face in the Chinese context can be divided into two categories (Hwang, 2006): *moral face*, which represents the two socially desirable values of achievement and morality (Ho, 1994), and *social face*, which is closely related to the concept of positive face proposed by Brown and Levinson (1987), and stems from an individual's psychological need

to establish a positive image. Two other factors—capability and guanxi—can further characterize social face in a Chinese context (Hwang, 2006). Along with the personal characteristics that are highlighted by moral face, Chinese people are mostly concerned with three factors that form the core dimensions of the face concept: (1) *capable face* comes from an individual's desire to have their capabilities and the possessions (e.g., achievements, status, fortune) derived from their capabilities be appreciated and approved by others, (2) *relational face* comes from an individual's desire to have harmonious interpersonal relationships and to exert a positive influence in society, and (3) *moral face* comes from an individual's desire to have their personal characteristics appreciated and approved by others.

We examined three perspectives of why face may be important in knowledge-sharing contexts. First, a knowledge-based employee's value is codetermined by the level of their intellectual capital and the degree of scarcity of knowledge (Kuvaas, 2011). Thus, they give continual attention to evaluations of their capability level and wish to receive positive feedback. Second, due to the asymmetry of knowledge distribution and the complexity of knowledge work, knowledge-based employees must enhance their efficiency and achieve their goals in conjunction with the power afforded to them by others (Ardichvili, 2008). Thus, these individuals also pay special attention to the maintenance of interpersonal relationships during their interactions. Third, Chinese society has a high expectancy for the moral standards and social responsibility of people with a high level of education (Hwang, 2006). Thus, knowledge-based employees may regulate their behaviors according to social norms in order to satisfy the public's high expectations.

Guanxi

Guanxi is a Chinese cultural concept that refers to a special relationship between two individuals who have common ties that are important aspects of their identification, which can be either ascribed traits (e.g., kinship, native place of origin, ethnicity) or achievements (e.g., attending the same school or serving in the same organization; Luo, 2011). All parties connected by such ties are bonded by implicit psychological contracts to follow the social norms of maintaining long-standing relationships, mutual commitment, and reciprocal obligations (Luo, 2011).

Guanxi determines the allocation of social resources and results in the differential treatment of in-group and out-group members; thus, its effect on knowledge sharing should not be underestimated (Huang et al., 2011). However, few previous researchers have dealt with the interaction between guanxi and face in the process of knowledge sharing (Zhu, Zhu, Le, & Wu, 2014).

Knowledge Sharing

Knowledge sharing is a process by which information, ideas, suggestions, and skills related to organizations are shared and exchanged between individuals and, in turn, new knowledge is created (Lin & Lo, 2015). According to this definition, the sharing intention of knowledge owners can be divided into two levels: *knowledge transfer*, which is focused on the sharing of learning outcomes (know-what) to solve current problems, and *skill teaching*, which is focused on the sharing of learning outcomes (know-why and know-how) to help others master approaches and methods to acquire knowledge and to build corresponding capabilities to deal with new problems (Lin & Lo, 2015). Knowledge transfer is not necessarily equal to the loss of discourse power. That is, it does not harm the professionalism of knowledge owners (saving capable face), but instead helps them to establish a friendly and selfless personal image (enhancing relational and moral face; Lin & Lo, 2015). In contrast, skill teaching threatens the power of knowledge owners, such that they may no longer be dominant in the organizational setting or may even be left behind as others' knowledge surpasses their own (endangering capable face).

Role Analysis of Face Based on Expectancy Theory

Previous researchers have found that knowledge owners' sharing intentions are mainly determined by their preference for "fighting for face" and "keeping up face" (Huang et al., 2011, pp. 569–570). Most knowledge management researchers assert that knowledge is power, and that sharing behavior may reduce a knowledge owner's unique value to the organization and make them lose their discourse power and *core status*, which is defined as their position and standing in the organization (Huang et al., 2011). If the shared knowledge content includes failure experiences, this may expose the knowledge owner's defects or shortcomings (Ardichvili, 2008), potentially reducing perceptions of their professionalism and leading to a loss of capable face. Because the valence of such expectancies is negative, it may reduce knowledge owners' sharing intentions. Therefore, we proposed the following hypothesis:

Hypothesis 1: The greater the likelihood of losing capable face, the weaker will be the knowledge owner's knowledge-sharing intention.

On the other hand, knowledge sharing may demonstrate knowledge owners' capabilities to some extent and help to maintain their authoritative image and professional reputation (Huang et al., 2011). The valences of these two expectancies are both positive, which may encourage knowledge owners to share their knowledge voluntarily. Therefore, we proposed the following hypotheses:

Hypothesis 2a: The greater the likelihood of saving capable face, the stronger will be the knowledge owner's knowledge-sharing intention.

Hypothesis 2b: The greater the likelihood of keeping up capable face, the stronger will be the knowledge owner's knowledge-sharing intention.

On the basis of the mutual benefit expectancy of social exchange theory (Emerson, 1976), knowledge sharing allows knowledge owners to receive support and feedback in the future when they are in need of help (Kankanhalli, Tan, & Wei, 2005), brings them valuable social relationships, and enhances relational face (Amayah, 2013). Meanwhile, guanxi—as perceived by Chinese people—induces more obligations and is likely to make people offer selfless help to others. Thus, knowledge sharing with colleagues is sometimes considered as an obligation that involves conforming to common interests, ensuring acceptance, and helping knowledge owners to maintain good interpersonal relationships and relational face. The valences of these two expectancies are both positive, which may enhance knowledge owners' sharing intentions. Therefore, we proposed the following hypotheses:

Hypothesis 3a: The greater the likelihood of saving relational face, the stronger will be the knowledge owner's knowledge-sharing intention.

Hypothesis 3b: The greater the likelihood of keeping up relational face, the stronger will be the knowledge owner's knowledge-sharing intention.

Knowledge sharing is a kind of extrarole altruistic behavior that can help knowledge owners to establish or maintain a generous and accommodating image. Moreover, knowledge sharing contributes to the maximization of knowledge value and the obtaining of sustained competitive advantage for organizations (Amayah, 2013). Therefore, knowledge sharing involves a short-term loss for a long-term gain. It is tied to moral character in China, a country that is dominated by collectivist principles. Further, knowledge sharing can help knowledge owners save moral face or maintain an established good image, so its valence is positive. Therefore, we proposed the following hypotheses:

Hypothesis 4a: The greater the likelihood of saving moral face, the stronger will be the knowledge owner's knowledge-sharing intention.

Hypothesis 4b: The greater the likelihood of keeping up moral face, the stronger will be the knowledge owner's knowledge-sharing intention.

Relationship Between Valence and Expectancy

The valence of face reflects simultaneously the importance of face and individuals' desire for face. Zhu et al. (2014) found that that an individual's face perception is closely related to their attention to face. In other words, the stronger is the knowledge owner's desire for face, the stronger will be their expectance of face saving or losing. Therefore, we proposed the following hypothesis:

Hypothesis 5: The stronger the knowledge owner's public self-consciousness, the stronger will be their expectancy to experience face saving or losing.

Under the premise of Vroom's (1964) expectancy theory, sharing behavior already involves instrumentality; thus, the motivating effect of face is not the simple result of the effects of valence and expectancy, but the product of the two. Only when knowledge owners feel that there is a difference between their

face appeal and the evaluation of others, will the expectancy of saving, losing, or keeping up face be formed and induce the corresponding behaviors (Ho, 1994). Therefore, we proposed the following hypothesis:

Hypothesis 6: The outcome expectancy related to face will act as a mediator between the valence of face and knowledge sharing-intention.

Knowledge Characteristics and Face Expectancy

Mainstream knowledge researchers have mainly focused on the difference between explicit knowledge and tacit knowledge, and found that knowledge owners' face orientations have different impacts on sharing intention in relation to these two types of knowledge (Huang et al., 2011). This is because tacit knowledge is more valuable than explicit knowledge, and brings more power and a better reputation to the knowledge owners (Huang et al., 2011). We believed that in comparison with the learning outcomes of the first level of knowledge sharing (know-what), knowledge owners would place greater value on the skills and secrets involved in the cognitive process of the second level of knowledge sharing (know-why). Thus, greater internal motivation would encourage knowledge owners to share such knowledge. Therefore, we proposed the following hypothesis:

Hypothesis 7: Compared with knowledge transfer, face expectancy will have a greater impact on the skill-teaching intention of knowledge owners.

Guanxi and Face Expectancy

The relationship between guanxi and face can be summarized into two different perspectives. In the first, face is only important in self-evaluation when considering important people's evaluations. When meeting strangers or people with whom one has a low level of familiarity, face holds relatively less weight because long-term interaction and continuous effort strengthen both parties' guanxi commitments. The desire to maintain guanxi prompts the motive to maintain face (Oetzel & Ting-Toomey, 2015). We believe that individuals who are performing in front of important people will be more likely to make efforts to manage and maintain their image in order make a good impression, encourage people to like them more, and form closer relationships. Therefore, we proposed the following hypothesis:

Hypothesis 8: Knowledge owners who have closer guanxi with colleagues will have stronger expectations of face gain or loss.

In the second perspective, psychological closeness can weaken people's motivations regarding maintaining face. Good manners and a pleasant image presented to strangers are a means of sending guanxi-building expectation signals (Brown & Levinson, 1987). It is unnecessary to do this in front of people with whom one is familiar, as intrinsic reality outweighs extrinsic image. In contrast, shorter psychological distance, more familiarity, and better understanding allow

both parties to interpret each other's behavior accurately, without having to make pretentions (Goffman, 1982). Therefore, we proposed the following hypothesis:
Hypothesis 9: Knowledge owners who have closer guanxi with colleagues will have weaker expectations of face gain or loss.

Method

Participants and Procedure

The sample was recruited from three colleges and universities in China's eastern coastal cities. Respondents were 450 part-time Master of Business Administration (MBA) students, of whom 291 provided valid responses (response rate = 64.67%). It is quite common for MBA students to work full-time during the day and then study in the evenings and weekends.

All participants were enrolled in knowledge management courses and were invited by their instructors to take part in the study. We obtained informed consent from the participants and the study protocol was approved by the authors' university ethics review boards. Chi-square (χ^2) and t test results indicated that there were no significant differences in the samples obtained from the three colleges and universities; thus, the samples were combined for examining the theoretical model. Table 1 shows the respondents' demographic information.

Table 1. *Participants' Demographic Information*

Measure	Item	Frequency	Percentage
Gender	Female	109	37.5
	Male	182	62.5
Age	> 46 years (born in 1960s and before)	6	2.1
	36–45 years (born in 1970s)	70	24.1
	26–35 years (born in 1980s)	202	69.4
	22–25 years (born in 1990s)	13	4.5
Industry	Manufacturing	60	20.6
	Finance	17	5.8
	Service	17	5.8
	Commerce	39	13.4
	Education	31	10.7
	Government	15	5.2
	Information technology/Communication	47	16.2
	Bioengineering/Medicine	42	14.5
	Other	23	7.9
Organizational tenure	1 year or less	71	24.4
	2–3 years	75	25.8
	4–10 years	117	40.2
	More than 10 years	21	7.2
	N/A	7	2.4

Measures

The core variables and label variables were measured using a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*).

Self-consciousness. We developed a Chinese translation of the self-consciousness scale created by DaSilveira, DeSouza, and Gomes (2015), and came to a consensus amongst ourselves regarding the accuracy of the translated wording of each item. This scale includes items such as "I always worry about not giving others a good impression" and "I care a lot about how people think of me."

Face expectancy. We developed a new measure of face expectancy that comprised seven variables assessing expectations regarding face-gaining ability, face-keeping ability, face-losing ability, face-gaining guanxi, face-keeping guanxi, face-gaining morality, and face-keeping morality. Each variable was measured in relation to respondents' self-prediction of effects regarding their own ability, guanxi, and morality. Details of the validity and reliability of this newly developed scale are provided below.

Intention of knowledge sharing. Knowledge sharing is a two-way interaction process. Thus, we investigated knowledge owners' intentions of sharing from the perspective of knowledge contribution, using Wang and Noe's (2010) eight-item scale, which covers the dimensions of knowledge delivery and skill teaching. We categorized knowledge sharing into *knowledge transfer*, focusing on reports, official documents, information, conclusions, and ideas, and *skill teaching*, focusing on experience, know-how, methods, and skill.

Guanxi. Referring to Luo's (2011) definition, we developed five items to measure respondents' guanxi with their colleagues: "We are close friends who can discuss personal issues," "We care about each other," "We help each other when we encounter difficulties," "I feel relaxed and not under pressure when we are together," and "We have common interests."

Label variables. To test for common method bias, we set a label variable (Fuller, Simmering, Atinc, Atinc, & Babin, 2016) and used it to measure participants' private (five items) and public (six items) self-consciousness tendency via the 11-item Self-Consciousness Scale (DaSilveira et al., 2015). According to DaSilveira et al. (2015), the items for private self-consciousness tendency and public self-consciousness tendency are not an either/or choice. They may coexist in the personality system, and have no direct correlation. Likewise, private self-consciousness and other core variables also have no correlation in theory.

Control variables. We controlled for individual-level demographic variables, such as gender, age, organizational tenure, and educational background (Swift & Hwang, 2013), and organizational-level variables, such as the organizational system (Lin & Lo, 2015) and organizational climate (Swift & Hwang, 2013), which may influence knowledge-sharing intentions.

Results

Measurement Model Testing

First, we used exploratory factor analysis (EFA) with varimax rotation to examine the discriminant validity of the overall measurement model. Nine common factors (including one label variable) with eigenvalues greater than 1 were obtained. The factor loadings of all terms were above .60 and the total variance explained was 68.37%, indicating that the discriminant validity of each variable was good. Further, the three different types of face had good discriminant validity; however, they were integrated to measure the expectancy to save face and keep up face. In the subsequent analysis, we developed them into three new variables for further processing: positive expectancy related to capable face, relational face, and moral face.

Table 2. *Confirmatory Factor Analysis Results*

Measure	Items	Cronbach's α	CR	AVE
Private self-consciousness (PRSC)	5	.853	.854	.539
Public self-consciousness (PUSC)	6	.865	.805	.508
Competence face-gaining/-saving expectancy (CFGE)	6	.926	.879	.547
Competence face-losing expectancy (CFLE)	3	.902	.835	.628
Fellowship face-gaining/-saving expectancy (FFGE)	6	.923	.911	.632
Moral face-gaining/-saving expectancy (MFGE)	6	.922	.899	.598
Knowledge delivering (KD)	8	.890	.874	.567
Skill teaching (ST)	8	.932	.884	.489
Guanxi (GX)	5	.843	.845	.522

Note. CR = composite reliability, AVE = average variance extracted.

Table 3. *Correlations Between Constructs*

	PRSC	PUSC	CFGE	CFLE	FFGE	MFGE	KD	ST	GX
PRSC	(.734)								
PUSC	.028	(.713)							
CFGE	-.140	.463	(.739)						
CFLE	-.020	.421	.354	(.792)					
FFGE	-.049	.372	.354	.227	(.795)				
MFGE	.049	.505	.382	.179	.481	(.773)			
KD	.055	.141	.179	-.143	.338	.336	(.753)		
ST	.030	.094	.229	-.307	.145	.201	.303	(.706)	
GX	.112	.114	-.015	-.054	.219	.145	.519	.163	(.722)

Note. Numbers on the diagonal are the square roots of the average variance extracted. Refer to Table 2 for the expanded version of each abbreviated construct.

Second, we used EFA to examine the convergent validity of the measurement model. As shown in Table 2, the composite reliability values ranged from .80 to .91 and the average variance extracted values ranged from .49 to .63, all of which are close to or above the recommended levels. The square root of the average variance extracted for each construct was greater than the correlations between constructs (see Table 3), which again confirmed the model's discriminant validity. Furthermore, as shown in Table 3, apart from competence face-gaining/-saving expectancy (r = -.14, $p < .05$), there was no significant correlation between the label variables and the core variables ($p \leq .01$), indicating that the influence of common method bias was very limited.

Structural Model Testing

The data analysis results showed that the structural model of this study had good fit, with each index meeting the acceptable standard: χ^2/degrees of freedom (df) = 1.84, comparative fit index (CFI) = .90, root mean square error of approximation (RMSEA) = .05. Figure 1 shows the standardized parameter estimation of each path, and it can be seen that Hypotheses 1, 2, 3, and 4 were all supported. Further, knowledge owners' public self-consciousness tendency was positively correlated with the expectancy to save and lose face (βs > .40, ps < .01); therefore, Hypothesis 5 was also supported.

In order to study the mediation effect of face expectancy, we further compared the fit of the nonmediated, partially mediated, and fully mediated models. The results indicated that the fit results of the partially mediated model were very close to those of the fully mediated model. Only the direct effects between public self-consciousness and two types of knowledge-sharing intention (knowledge delivering and skill teaching) were statistically nonsignificant. Moreover, the level of fit of the two mediated models was significantly better than that of the nonmediated model (χ^2/df = 1.99, CFI = .88, RMSEA = .06); therefore, Hypothesis 6 was supported.

Model testing regarding Hypothesis 7 provided two opposite results. The expectancy to save and lose face related to capable face had the strongest impact on knowledge owners' skill-teaching intentions. The absolute values of its path coefficients (.46 and .31) were significantly greater than those of face expectancy and knowledge transfer intention (.30 and .12), supporting Hypothesis 7. In contrast, the positive expectancy related to relational face and moral face had significant influence on knowledge transfer intention (β = .28 and .20).

Finally, Hypotheses 8 and 9 were partially supported. The path coefficient between guanxi and negative expectancy to capable face was -.12 ($p < .01$), whereas the path coefficient between the positive expectancy to relational face was close to .20 ($p < .01$).

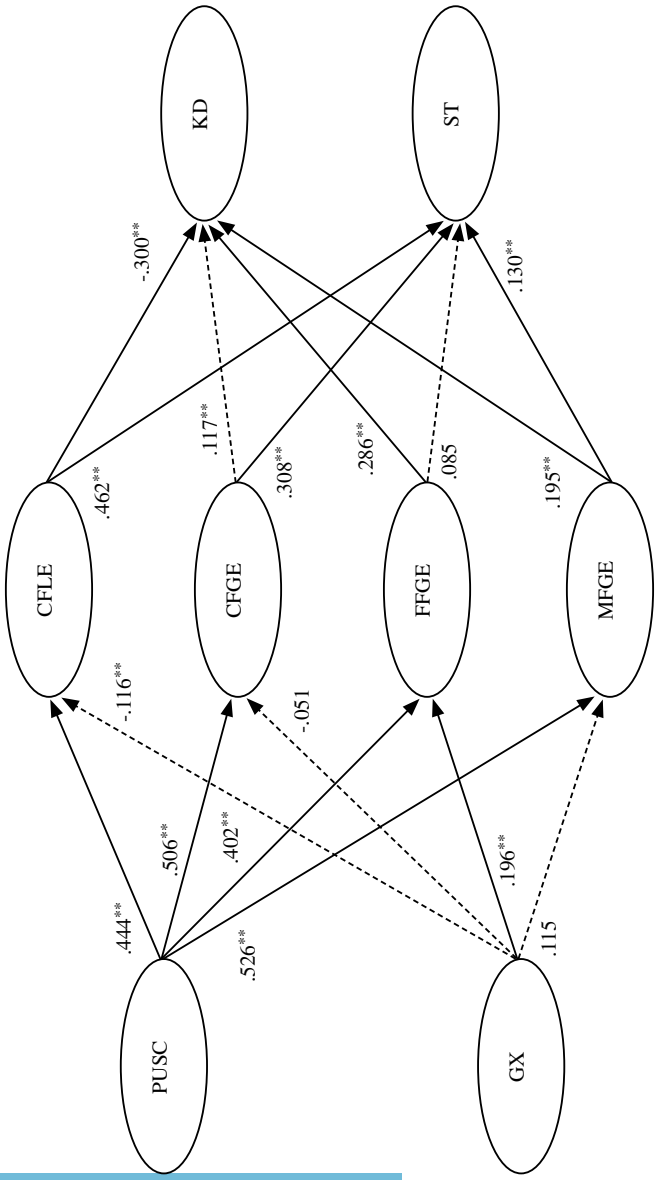

Figure 1. *Path estimates of the hypothesized model.*
Note. Refer to Table 2 for the expanded version of each abbreviated construct. * $p < .05$, ** $p < .01$.

Testing of Control Variables

Considering the possible linear correlation between variables, we applied multivariate analyses of variance to examine the effect of the control variables. The analysis results were as follows: (1) the public self-consciousness tendency of female respondents was generally stronger than that of males ($F = 9.85$, $p < .02$), and females had a much stronger expectancy to save/keep up relational face than did males ($F = 4.59$, $p < .05$); (2) the public self-consciousness tendency of those born in the 1980s and 1990s was noticeably higher than that of participants born in the 1970s. This indicates that younger managers are more sensitive to capable face than older managers are, whereas the contrary holds true for relational face ($ps < .05$); (3) the higher the education level of the respondents, the weaker was their public self-consciousness ($4.72 < M < 5.41$). Specifically, respondents with an undergraduate degree or higher level of education were more sensitive to the idea that knowledge sharing may lead to the loss of capable face ($p < .05$); (4) the respondents' organizational tenure had no obvious influence on their knowledge-sharing intention, but the public self-consciousness of older employees whose continuous tenure in the organization was over 10 years was relatively weak ($M = 4.28$, $ps < .01$), as was their positive expectancy of capable face ($M = 4.08$, $ps < .05$); and (5) a good organizational climate had a significant influence on respondents' knowledge transfer ($F_{climate} = 6.08$, $p < .01$) and skill-teaching intentions ($F_{climate} = 4.28$, $p < .05$), but the influence of the organizational system was nonsignificant ($ps < .20$).

Discussion

Previous researchers have examined the effect of face culture during the knowledge-sharing process from a social cultural perspective, but have not analyzed the internal mechanism of face (Zhu et al., 2014). Thus, we analyzed the specific role of face from the three perspectives of the instrumentality of behavioral results, valence of face, and the result expectancy related to face by virtue of expectancy theory (Vroom, 1964).

First, in light of Chinese people's strong focus on face, the behavioral results regarding knowledge sharing already had instrumentality. Chinese people's concern about face naturally makes them associate the saving or losing of face with the direct outcomes of sharing behaviors (Huang et al., 2011).

Second, empirical researchers (see, e.g., Zhu et al., 2014) have indicated that saving and keeping up face are associated with a positive social reward for Chinese employees, reflecting that their behaviors meet or even exceed social expectations and, therefore, enhance their social image. In this case, the valence of maintaining face is positive and knowledge-sharing intention is significantly increased. In contrast, losing face equates to intangible social

punishment because its valence is negative; thus, knowledge-sharing intention correspondingly decreases.

Third, in previous studies, face need, face concern, and face consciousness were often used to measure the degree of attention individuals pay to face (Zhu et al., 2014). However, there is no relatively high-standard and sufficiently tested measuring tool. As such, we avoided using this common data collection method and instead focused on the determinants of face valence. Our results indicate that the higher is an individual's public self-consciousness tendency, the higher will be their face valence, and, correspondingly, the more sensitive and stronger will be their expectancy to save or lose face.

In addition, we believe that the traditional positive/negative dual division is inadequate to embody the face appeal of Chinese knowledge owners. In combination with knowledge-based employees displaying group characteristics, they are expected to perceive face information based on, as a minimum, the three self-values of capability, relationships, and morality, and to show corresponding behavioral intentions according to the different expectancies of face saving or losing (Huang et al., 2011). To some extent, our findings explain why previous researchers (e.g., Huang et al., 2011) obtained different conclusions regarding the role of face during the knowledge-sharing process. Specifically, we can draw the following conclusions:

First, the gain and loss expectancy of capable face has distinct influences on individuals' knowledge-sharing intentions. If knowledge owners believe that knowledge sharing may lead to the loss of their exclusive rights of knowledge, expose their shortcomings, reveal the distance between them and their colleagues (Amayah, 2013), or destroy their image in the mind of their colleagues, their knowledge-sharing intention will be correspondingly reduced. In contrast, if knowledge owners think knowledge sharing may demonstrate their capabilities, allow them to maintain or improve their image, or enhance their position in their organization (Hau, Kim, Lee, & Kim, 2013), they will display behavior dynamics corresponding with increased knowledge-sharing intention.

Second, the gain and keeping-up expectancy of face in interpersonal relationships will increase knowledge owners' sharing intentions. Owing to the asymmetry of knowledge distribution and the complexity of knowledge work, knowledge-based employees are highly dependent on each other (Wang & Noe, 2010). When knowledge owners think it is their obligation to share knowledge or deem knowledge sharing as a valuable investment that can help them to establish a good working environment and improve interpersonal relationships (Hau et al., 2013), they will show the corresponding behaviors.

Third, the gain and keeping-up expectancy of face related to personal characteristics will lead to results that are similar to those of relational face, for the same reasons. Knowledge sharing is a kind of extrarole behavior;

thus, it should be encouraged rather than forced (Amayah, 2013). We found that a good organizational climate has a significantly positive influence on knowledge owners' knowledge-sharing intentions, but the influence of the formal organizational system on interpersonal relationships (i.e., guanxi) is not apparent. This result is inconsistent with those found in in previous studies (see, e.g., Ardichvili, 2008; Huang et al., 2011), which we believe is because we did not distinguish between motivations and punishments.

In addition to the individual impacts of valence and expectancy, expectancy theory emphasizes the interaction between the two variables (Vroom, 1964). Our results support the existence of this relationship, revealing the mediating effect of face expectancy in the relationship between face valence and sharing intention and indicating that the desirability of behavioral outcomes is not the only standard that determines behaviors. Rather, the expectancy of the extent to which individuals think they can realize the specific goals is more important. On the other hand, the partially mediated analysis results also indicate that knowledge owners who have reservations about teaching special skills to colleagues may consider other face-related factors besides changes in the self-worth aspects of capability, relationships, and morality.

Rather than the knowledge classification methods used in previous studies, we divided knowledge-sharing activities into knowledge transfer and skill teaching (Wang & Noe, 2010). We believed that face expectancy would have a more prominent influence on knowledge owners' skill-teaching intentions; however, our results provided only partial support for this proposition. The outcome expectancy related to capable face showed the expected characteristics, but the contrary manifested for relational face and moral face. Skill training and mastering may require higher energy and time costs than does knowledge sharing, making skills more valuable to and cherished by the owner, so that the skill owners are unwilling to exchange such a valuable asset in exchange for others' gratitude alone (Yang & Farn, 2010). Another possibility is that we consider a specific skill one has mastered is likely to be more stable and controllable than external reputation and interpersonal relationships. Although all of these aspects have certain social benefits, the owner may be reluctant to make such a deal.

When analyzing environmental characteristics, we found that, to some extent, Chinese people's guanxi culture can promote or hinder the free flow of knowledge (Huang et al., 2011). To examine the relationship between the interactants on the effect of face, we proposed two competing propositions that were partially confirmed. On the one hand, knowledge owners' judgments about guanxi were associated with the negative expectancy of capable face. This finding is consistent with the theoretical conclusion of Brown and Levinson (1987), indicating that good interactions may promote familiarity and understanding

between parties and, hence, reduce perceived threats to face. Further, although it is not obvious, the standardized path coefficient between guanxi expectancy and capable face expectancy was below zero, which indicates that stronger guanxi between two parties is associated with less individual attention being paid toward capable face. On the other hand, the judgment of guanxi is also associated with the positive expectancy of relational face. This result supports Huang et al.'s (2011) conclusion that there is a significant positive influence of the long-term commitment in interpersonal relationship on the motive of face-saving. In summary, our findings indicate that guanxi may be a complex multidimensional concept that has varying impacts on face perceptions.

Limitations and Future Research Directions

In this study, the mediating effect of face expectancy in the relationship between guanxi and knowledge-sharing intention was partially confirmed, which may be associated with the ambiguity of the face concept. Although the fit of our three-factor model was acceptable, the total variance explained for the three factors of capability, relationships, and morality, was less than 60%. During the knowledge-sharing process, and especially during skill teaching, do knowledge owners perceive other changes in self-values? This question is worth further consideration.

Second, we adopted the method of self-report for attitude measurement. The results of our data analysis indicated that there was no obvious common method bias, but our results were inevitably negatively influenced by social desirability. In future studies, we recommend utilizing multiple methods (e.g., experimental and observational methods) and multisource data to further examine our research conclusions.

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