

Reconceptualizing and Redirecting Research on Guanxi

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Document Version Accepted author manuscript

Published in: Management and Organization Review

DOI: 10.1017/mor.2019.36

Publication date: 2019

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Citation for published version (APA): Li, P. P., Zhou, S. S., Zhou, A. J., & Yang, Z. (2019). Reconceptualizing and Redirecting Research on Guanxi: 'Guan-Xi' Interaction to Form a Multicolored Chinese Knot. Management and Organization Review, 15(3), 643-677. https://doi.org/10.1017/mor.2019.36

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Journal article (Accepted manuscript*)

Please cite this article as:

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This article has been published in a revised form in *Management and Organization Review* <u>https://doi.org/10.1017/mor.2019.36</u>.

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* This version of the article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the publisher's final version AKA Version of Record.

Uploaded to <u>CBS Research Portal:</u> August 2020









Reconceptualizing and Redirecting Research on *Guanxi*:

"Guan-Xi" Interaction to Form a Multicolored Chinese Knot

Li, P.P., Steven Shijin Zhou, S.S., Abby Jingzi Zhou, A.J. & Yang, Z.

Management and Organization Review, 15 (3): 643-677, 2019 doi: 10.1017/mor.2019.36

Abstract

Guanxi is one of the most popular topics in Chinese and Western scholarship concerning social ties in China. However, several problems in research on *guanxi* persist, and multiple debates are still ongoing without much consensus in sight. This study has two goals. First, we offer a systematic review of the current literature on *guanxi*, especially by differentiating *guan* dyads from *xi* networks. This reconceptualization of *guanxi* enables us to clarify the concept of *guanxi* by differentiating its two dimensions. Second, based on this literature review, we propose a redirection of future research on *guanxi* such that *guan* dyads and *xi* networks are not examined in isolation; rather, their holistic and dynamic interaction is the most fruitful avenue for future research, especially the four mechanisms of their interaction. The proposed reconceptualization and redirection are our two contributions to the literature.

Keywords: Guanxi; Guan Dyad; Xi Network; Guan-Xi Interaction; Multicolor Chinese Knot

Guanxi is one of the most common terms used to describe social reality in Chinese culture. In recent years, it has been the focus of attention in both Western and Chinese scholarship, generating rich discussions (Bian, 2018; Burt, 2019; Chen, Chen, & Huang, 2013; Hwang, 1987; Li, 1998; Luo, 2011; Xin & Pearce, 1996). Like the two key schools about social capital-the first emphasizing the relational substance of social ties as the unit of analysis at the level of dyads in terms of interpersonal ties between two parties, and the second focusing on the structure of social networks as the unit of analysis at the level of networks in terms of a portfolio of diverse dyads (for reviews, see Adler & Kwon, 2002; Portes, 1998; Woolcock, 1998; see also de Pablos, 2005)—current studies on guanxi can be divided into two streams. First, guanxi has been examined as a dyad consisting of familiarity, intimacy, trust, sentiment, and obligations (Bian, 1997; Burt & Burzynska, 2017; Burt & Opper, 2017). Second, guanxi has been studied at the level of networks that consist of multiple dyadic ties embedded in an egocentric network consisting of diverse and dynamic ties with an ego (Luo & Yeh, 2012; Luo, Cheng, & Zhang, 2016). The current research on *guanxi*, at the level of dyads or of networks, has generated useful insights into this indigenous construct in China.

However, these two research streams about *guanxi* remain somewhat isolated from each other. Undoubtedly, *guanxi* can be framed as particular dyads, but how this tie is influenced and shaped in the network in which it is embedded is less clear. Meanwhile, how *guanxi* networks, as a special kind of social network, emerges and evolves with dyads also remains unclear. Although some similarities and differences between *guanxi* and social capital have been identified (e.g. Horak, Taube, Yang & Restel, 2019), few studies discuss the interaction between dyads and networks. Moreover, little is known about the cultural and historical roots of *guanxi* in China. Current studies on *guanxi* have fruitful results, but holistic and dynamic knowledge about *guanxi*

is lacking, which limits further research on this construct not only in the context of China but also in the emerging global context.

In this study, we shed new light on the ongoing debates over guanxi by decomposing and interpreting it in light of its two dimensions: guan 关 [related with] and xi 系 [tied together]. This approach is compatible with the prevailing approach in research on social capital and consistent with the reality of Chinese practice. First, we distinguish guan and xi as the two core dimensions of *guanxi*: dyads and networks, respectively. Second, we combine these dimensions into one dynamic and holistic system to discuss their interplay and integration. This approach allows us to assess the current literature on *guanxi* more systematically by differentiating studies with a primary focus on guan (emphasizing the substance or content of dyadic ties) from those primarily devoted to xi (emphasizing the structure or pattern of network circles). It also enables us to explore a largely neglected area of research on *guanxi*: the interaction between *guan* and *xi*, so that we can truly understand *guanxi* as a holistic and dynamic construct with its dualityoriented features: contexts (e.g., the duality of uncertainty as risk and opportunity), bases (e.g., the duality of ascribed and achieved status), substance (e.g., the duality of instrumental/ economic/weak and sentimental/social/strong content), structure (e.g., closure/density and structural holes; core and periphery; homophily and multiplexity), process-related mechanisms (e.g., trust transfer and trust conversion), and outcomes (e.g., positive and negative; change and continuity). In this way, we can reveal rich implications not only for China in particular but also for the world in general.

This study has two goals. First, we provide a systematic review of the current literature on *guanxi*, differentiating *guan* dyads from *xi* networks, as its two core dimensions. Second, based on this literature review, we propose a redirection of future research on *guanxi*. In particular, we

posit that, although *guan* dyads and *xi* networks are two distinct dimensions of *guanxi*, they should not be examined in isolation. Related to such two goals, we make two contributions. First, we reconceptualize *guanxi*, so as to integrate the instrumental and sentimental logic of strong ties among friends, while considering both close kinship ties and stranger ties "non-*guanxi*." Further, *guanxi* can be analyzed more effectively by recognizing *guan* dyads and *xi* networks as two distinct yet interdependent dimensions. Second, we propose a redirection of future research on *guanxi* to focus more on issues related to dynamic processes, especially holistic interactions between the substantive and structural dimensions of *guanxi* through four mechanisms: trust transfer, trust conversion, transforming weak trust into strong trust, and multiplexity. Specifically, we argue that it is logically impossible to have *xi* networks without *guan* dyads; *guan* dyads without *xi* networks not only are unusual in the Chinese context but also highly irrelevant in an organizational context. Hence, this study proposes a holistic and dynamic approach to both conceptualizing and operationalizing *guanxi* in a complex organizational context and across diverse cultures, as the most fruitful avenue for future research.

In the first section, we offer a systematic literature review on *guanxi*; then we present a reconceptualization of *guanxi*; afterward, we propose a redirection of future research on *guanxi*; and finally offer our conclusions.

LITERATURE REVIEW

The approaches to studying *guanxi* have evolved over the past three decades. At first, most research on *guanxi* concentrated on international business research. The analysis was related to practices at multinational corporations in mainland China, Taiwan, and Hong Kong (e.g., Farh, Tsui, Xin, & Cheng, 1998; Luo, 1997; Xin & Pearce, 1996; Yeung & Tung, 1996). Later,

research on *guanxi* focused increasingly on the practices of Chinese enterprises as an indigenous issue (e.g., Gu, Hung & Tse, 2008; Li, 1998, 2007; Luo, 2011; Peng & Luo, 2000). Despite the growing popularity of research on *guanxi*, it still has some conceptual ambiguities in terms of its substance and structure at various levels of analysis as well as its antecedents, processes, and consequences (for reviews, see Bian, 2018; Chen et al., 2013; Li, 2007).

Many scholars analyzed *guanxi* at the level of a dyad (e.g., Burt & Burzynska, 2017; Burt & Opper, 2017; Hwang, 1987), but some have studied *guanxi* at the level of both dyads and networks (i.e., an egocentric network with oneself as the ego at the center of network) (e.g., Li, 1998, 2007; Luo & Yeh, 2012). Few discussed *guanxi* at the level of an entire network (e.g., Fan, 2002), as in mainstream network research in the West (e.g., Barabási & Albert, 1999; Watts & Strogatz, 1998).

Finally, many theoretical concepts in the literature on *guanxi* have not been supported in empirical studies and remain merely propositions. For example, the related issues of face (*mianzi*) and favor (*renqing*) (e.g., Hwang, 1987) and the ethical challenges and negative effects of *guanxi* (e.g., Dunfee & Warren, 2001) have rarely been empirically validated. Part of the reason is the lack of access to data because of the sensitivity of such issues, especially in the context of China (Chen et al., 2013; Luo et al., 2016).

Definition of *Guanxi*

Regarding the definition of *guanxi*, scholars in different fields have formulated different concepts from diverse, sometimes conflicting, perspectives. At first, a group of scholars who studied Chinese issues defined *guanxi* as interpersonal connections based on familial or close kinship ties, which tend to be strong ties with primarily a sentimental or emotional role,

especially in the context of China (e.g., Hu, 1944; Liang, 1986 [1949]). Later, some scholars noted the instrumental role of *guanxi*, so they defined it as particularistic instrumental ties (Jacbos, 1979), but many others retained the sentimental basis as the unique nature of *guanxi* (e.g., Bian, 1997; Hwang, 1987; Yang, 1994). However, no consensus has been reached on whether family ties or close kin ties are part of *guanxi* or on how *guanxi* differs from social capital (Li, 2007). Recent studies by Burt and colleagues indicate that *guanxi* is a special type of strong tie among family members, close kin, and long-term friends that is independent from a network structure, so *guanxi* can serve as a cocoon to protect these network members from a hostile external context (Burt & Opper, 2017; Zhao & Burt, 2018). In this literature review, we adopt the broadest definition of *guanxi* as an informal norm of interpersonal exchange that regulates and facilitates privileged access to sentimental or instrumental resources at the dyadic or network level (for reviews, see Bian, 2018; Chen et al., 2013; Li, 2007; Luo et al., 2016).

Cultural and Historical Roots of Guanxi

Deeply rooted in the Chinese historical and cultural context, *guanxi* is a basic building block of Chinese society, in which the extent of "personalism" (Redding, 1990) between social actors varies according to the degree of personal closeness and social distance (Liang, 1986 [1949]). *Guanxi* is salient in China for two reasons.

First, at the surface level, *guanxi* is important in China due to the lack of well-established formal institutions (Peng, 2003; cf. North, 1990). This perspective has been solidly established in the literature, so there is no need to elaborate further.

Second, at the deep level, *guanxi* historically emerged as a form of self-protection from two threats. The first threat is the hostile environment facing new migrants who fled their region of

origin because of countless wars between the northern nomads and the southern Han 汉 ethnic group. Confronting unfriendly or even hostile attitudes from the existing communities in the new region, the Han people could rely only on their own immediate family members, close kin, and long-time friends for self-protection (Li, 1998; Redding, 1990). The Chinese developed a common practice of turning close friends into pseudo-kin by informally "adopting" parents or siblings (Bian, 2018; Luo, 2011; Yang, 1993).

The second threat is corrupt formal institutions in China, especially government agencies at all levels. In this sense, *guanxi* has long been recognized as an informal force to counterbalance the grabbing hand of the state as a monopoly to extract rent from the Chinese, which has created a strong sense of insecurity among the Chinese over time (Redding, 1990). The combination of the state as a monopoly without any balance of power and the rule of man at the expense of the rule of law has forced the Chinese to rely primarily on self-organized and self-managed social networks for their self-protection. This dynamic also led the Chinese to trust and rely mostly on informal practices, which have persisted over time.

The lack of the rule of law in China historically can reasonably be seen as deriving from overreaction to the extreme abuse of *Legalism* in the Qin dynasty over two thousand years ago¹. This may explain why the Chinese chose Confucianism, which favors the rule of man rather than the rule of law. This historical choice has had a long-term impact on China even down to the present. However, this preference is a double-edged sword (Li, 1998), and some signs have emerged that this preference in China may be shifting (Lin, Lu, Li, & Liu, 2015).

¹ The Qin dynasty was the first dynasty of Imperial China. It lasted from 221 to 206 BC. The Qin dynasty was governed with a single philosophy, Legalism, which encouraged severe punishments.

Finally, at an even deeper level is a third reason for the salience or prevalence of *guanxi* in China, which has been largely neglected but is deeply embedded in Chinese philosophical traditions. In general, most Chinese schools of philosophy value tacit knowledge and artistic skills over explicit knowledge and scientific skills. In particular, Daoism strongly tolerates and prefers holistic and dynamic paradoxes or dualities (rooted in the Chinese epistemology of yinyang balance), and it also prefers complex ambiguities that are often expressed in terms of artistic metaphors that rely on intuitive imagination for insight, rather than rational logic and measurable constructs in scientific research (Li, 2016; Li & Xie, 2019). However, a balance between formal and informal factors is still the best for West-meeting-East balancing (Li, 2016).

An Overview of the Literature on Guanxi

To obtain an initial overview of the literature on *guanxi*, we used the Web of Science (WOS) database to search for relevant articles in management and business. We set the time range from 1980 to 2018, and the result yielded more than 500 relevant studies. We then analyzed the citation networks of these studies and conducted a cluster analysis (network modularity analysis)² by identifying four major clusters in the literature on *guanxi* (see Table 1). It should be noted that only three of the ten highly cited empirical studies reported and discussed the effect size.

<Insert Table 1 about here>

 $^{^2}$ Modularity is a method designed to detect community structure in a network. Using this method, a network can be divided into subclusters or subgroups.

Conceptual Studies on Guanxi

In the extant literature, conceptual studies on *guanxi* focus mainly on the basis (e.g., Tsang, 1998; Yang, 1994), nature (e.g., Lovett et al., 1999; Hwang, 1987; Tsang, 1998; Yang, 1994), types (e.g., Hwang, 1987; Yang, 1994), accumulation process (e.g., Yan, 1996; Yang, 1994), significance (e.g., Yang, 2002) and dark side of *guanxi* (e.g., Dunfee & Warren, 2001; Qi, 2013). These studies emphasize the basis of trust and patterns of reciprocity in *guanxi*. By comparing theories on *guanxi* with existing theories, such as institutional theory and social capital theory, scholars demonstrate the uniqueness of *guanxi* and its popularity in China and build an analytical framework for studying it. Table 2 summarizes the key theoretical findings in these conceptual studies in the literature on *guanxi*.

<Insert Table 2 about here>

Empirical Studies on Guanxi

The quantitative research on *guanxi* can be divided into studies at the interorganizational and the intra-organizational levels. The first type mainly uses the questionnaire-based survey method to obtain data; the second mainly adopts experiments and questionnaires to collect data. In general, they find that ownership, institutional and market environments, firm size, and managerial traits all have impacts on the strategy and implementation of *guanxi* (Lee, Pae, & Wong, 2001; Li et al., 2011; Luo, 1997; Opper, Nee, & Holm, 2017; Park & Luo, 2001). In addition, *guanxi* has a positive effect on performance indicators, but the impacts on different indicators differ (Gu et al., 2008; Guo & Miller, 2010; Park & Luo, 2001; Peng & Luo, 2000). Different types of *guanxi* have different effects on business performance (Peng & Luo, 2000;

Xin & Pearce, 1996). To a certain extent, these studies incorporate research on *guanxi* into larger analytical frameworks, such as those on social networks and social capital (Bian, 2018).

At the intra-organizational level, *guanxi* has an impact on trust between supervisors and subordinates (Farh et al., 1998; Chen et al., 2004), which also affects employee performance and promotion (Chen & Gable, 2013; Law, Wong, Wang & Wang, 2000; Taormina & Gao, 2010). *Guanxi* can promote collaboration among employees (Chen & Tjosvold, 2006) and has an impact on employees' perception of fairness (Chen, Friedman, Yu, & Sun, 2011). Current studies find that employee similarity, values, and organizational environment affect the formation and maintenance of *guanxi* (Lee et al., 2001; Taormina & Gao, 2010; Zhang, Deng, Zhang, & Hu, 2016). The degree of trust in different types of *guanxi* within an organization varies (Luo, 2011).

Table 3 summarizes the quantitative studies on *guanxi* in terms of relationships between *guanxi* and other variables, key findings, explained variance (\mathbb{R}^2), effect sizes (Fisher's z-transformation based on the correlation coefficients and sample sizes), and the 95% confidence interval with an upper and lower bound. The specific review sections on *guan* and *xi* offer detailed discussions on the empirical findings. However, some empirical studies did not provide a table on the correlation coefficients, so we did not include them, but they are discussed below. In response to criticisms of management that place too much emphasis on statistical significance and new findings, empirical researchers should adequately report their results, including effect size, explanatory power, and insignificant results (Lewin, Chiu, Fey, Levine, McDermott, Murmann, and Tsang 2016). In Table 3, we can see that, although regression coefficients were provided and discussed in all studies, 13 out of 22 studies did not provide the explained variance (\mathbb{R}^2) of independent variables as separated from control variables. Only 10 studies have clearly discussed the effect size in the results section, six of which are at intra-organizational level. This

makes it impossible to adequately compare the main findings of different studies, so we cannot clearly figure out how much the explanatory power of *guanxi* would be in these studies.

<Insert Table 3 about here>

Table 4 summarizes the main results of qualitative studies on *guanxi*. Qualitative studies on *guanxi* cover specific topics, such as dynamic changes and content and circles of *guanxi*.

<Insert Table 4 about here>

In general, the conceptual and empirical studies on *guanxi* seem disconnected. The concepts, perspectives, and frameworks in the rich theoretical research on *guanxi* have not been adequately tested in the empirical research. The primary focus of the existing empirical research is the antecedents and effect of *guanxi*, and only a few empirical studies focus on the negative effects of *guanxi* and the process of building it. More noteworthy is that most research on *guanxi* is based on an analysis of dyadic ties between two individuals, but the network structure aspect of *guanxi* has been neglected (for exceptions, see Li, 2007; Luo, 2011; Luo & Yeh, 2012; Luo et al., 2016), especially in terms of centrifugal networks (i.e., a web-shaped network with the strongest ties at the core and weaker ties on the periphery, which is known as the differential mode of association (Fei, 1992 [1947]). Other major debates and gaps in the literature on *guanxi* exist (see Bian, 2018; Li, 2007, for reviews), which are addressed in the next section.

RECONCEPTUALIZING GUAN AND XI

In this section, we reconceptualize *guanxi* and explain its two different dimensions: *guan* (dyad) and *xi* (network). *Guanxi* is neither an individual-level nor a group-level construct; rather, it has both individual and group dimensions. The individual dimension has been discussed in terms of strong and weak ties, and the group dimension has also been well investigated in terms of centrality (peripherality) and density (structural holes). However, the dyad and network aspects have not been explored, so some opportunities for gaining new insights into *guanxi* may have been missed. Our reconceptualization adopts a narrower and more restricted notion of *guanxi* in two respects: it excludes blood-based family ties and close kinship ties as well as stranger ties. We do so for three reasons.

First, the relational closeness in *guanxi* is dynamic in nature, thus changeable over time. However, close kinship ties are not only ascribed but also fixed on the basis of blood relations. If *guanxi* can be built over time in a dynamic process, close kinship ties as given must be excluded from *guanxi*. Stranger ties are not yet *guanxi* because of the absence of any connection. Second, *guanxi* must be governed by a mixture of both instrumental and sentimental logic, but close kinship and stranger ties are governed by only one of them, so it is necessary to exclude them in the reconceptualization of *guanxi*. Third, the substance and structural dimensions of *guanxi* are inherently intertwined, but close kinship and stranger ties are not subject to the effect of network structure. For instance, Burt and colleagues posit that close kinship ties (and pseudo-kinship ties) constitute a cocoon independent of network structure (Burt, 2019; Burt & Opper, 2017; Zhao & Burt, 2018), but a new study (Prato, Kypraios, Ertug, & Lee, 2019) shows that ascribed and achieved status as different social positions in a specific social network are often intertwined with interactive effects.

In short, we focus only on familiar ties (pseudo-kinship and friendship ties) and regard distant kinship and stranger ties as potential sources of *guanxi* in a dynamic process.

Guan Dyad

The defining features of guan dyad

Guan literally means "related"³ and refers to a strong dyadic contact between two social actors. Through reciprocal *guan*, two parties can exchange favors, resources, and knowledge with each other. The nature of *guan* in Chinese society is strongly informal (Li, 2007). Both the rights and obligations of *guan* are implicit (in contrast to explicit resources, such as physical capital and financial capital), so it cannot be governed by any formal regulations or laws (Li, 2007). The research on the defining features of *guan* focus on one question: What constitutes a *guan* dyad, as the substance of an informal and personalized tie?

The central substance of *guan* is in having a complex mixture of instrumental and sentimental logic. It can be established via emotional interactions, but it also has an instrumental role in social life (Bian, 1997; Li, 1998, 2007). Hwang (1987) divided the governing logic of *guanxi* into three dimensions: affective, normative, and instrumental. The affective dimension consists of expressive or affective bonds, such as feelings of affection, safety, and attachment. The normative dimension indicates that *guanxi* must be built up from prescriptive ties such as pseudo-kinship and friendship. The instrumental dimension indicates that *guanxi* can bring some economic benefits to the parties involved, such as exchanges of favors.

³ In the following section, we use *guan* to mean *guanxi* when it refers to the relational substance or content of a dyadic tie.

However, in contrast to our reconceptualization, many scholars (e.g., Chen et al., 2013) posit that *guanxi* can be divided into affective versus instrumental ties, personal versus impersonal ties, and mixed ties; personal *guanxi* ties are more affective, while impersonal ties are more instrumental. Our reconceptualization explicitly suggests that *guan* is inseparably both sentimental and instrumental.

The underlying bases of guan dyad

In the Chinese context, the underlying basis of *guan* is multidimensional. Two essential bases are identified with respect to *guan* dyads: (1) ascribed bases (e.g., distant kinship, hometown, and attending the same university) and (2) achieved bases (e.g., non-kin friendship, education, profession, attending the same university, common workplace, and shared hobbies) (Chen et al., 2013; Li, 2007; cf. Prato et al., 2019).

First, guan implies a reciprocal obligation between two people (Horak & Taube, 2016). Reciprocity involves exchange behavior, unlike spot transactions in the market. It is critical to note that the notion of reciprocity in the Chinese context differs substantially from that in the West on the dimensions of value and time (Li, 2007). While the Western notion of reciprocity refers to an exchange of benefits at an equal value and at an immediate or a certain point of time, the Chinese notion of reciprocity highlights an exchange of benefits at an escalating value and at an unspecified point of time, just as an old Chinese proverb says: "if someone pays you an honor of a linear foot, you should reciprocate by honoring the giver with ten linear foot" (滴水之恩, 当涌泉相报 in Chinese). Further, reciprocal exchange involves both instrumental and emotional behaviors (Luo, 2011). Norms of reciprocity generate trust as an efficient enabling mechanism in a *guanxi* network. However, reciprocal exchange behavior rarely occurs between two strangers though is common between two friends. We discuss this in the following section.

Second, the frequency of *guanxi* interaction is based on social proximity and distance, and it varies among different dyads (Hwang, 1987; Luo, 2011). The closer the relationship is, the more frequent are the interaction and resources exchanged. Strong ties involve the exchange of favors, which has a significant impact on status attainment in Chinese society (Bian, 1997; Bian, Huang, & Zhang, 2015). These findings highlight the power of strong ties in China.

The process of building guan dyad

Building *guan* is a dynamic process, anchored in building trust—the basis of *guan* (Burt & Burzynska, 2017; Li, 1998, 2007). Consistent with Li's framework on building trust (2008), the building of *guan* dyads follows a similar process. Initially, non-*guan* ties between strangers have depersonalized bases, whereas *guan* dyads have personalized bases. The cultivation and maintenance of *guan* require repeated reciprocal actions, accompanied by the continuous accumulation of trust and commitment.

Guan can last for a long time, even a lifetime, resulting in growing cognitive trust based on instrumental outcomes and growing affective trust that forms life-long family friendships, pseudo-kin, or even new kin members through marriage. Hence, reciprocal actions based on *guan* are neither immediate nor symmetrical. Favors granted in a current exchange can be returned with other kinds of favors in the future. As Hwang (1987, pp: 947) pointed out, "in the process of interaction, either party in the dyad may interchangeably play the role of petitioner at one time and that of resource allocator at another." In the process of building and maintaining *guan* dyads, this kind of exchange of favors could continue in a never-ending cycle.

The operating effects of guan dyad

The studies on the impact of *guan* can be divided between those on intra-organizational ties and those on interorganizational ties. On the first topic, using a high-tech firm in Taiwan, Luo (2011) empirically confirmed different types of ties, pseudo-kinship and acquaintance ties, in the research on horizontal *guan* dyads (relationships between actors or colleagues at the same level) at the intra-organizational level. Fu and colleagues (2006) also found that acquaintance ties and stranger ties have different effects on knowledge management and decision-making at various stages in a firm's development. Chen and colleagues (2011) illustrated that interpersonal *guan* within a group may enhance employees' perceptions of justice, while *guan* among different group managers may weaken employees' perceptions of justice.

The supervisor-subordinate tie is a typical example of a vertical *guan* dyad, with the potential for transferring knowledge, resources, or favors between supervisors and subordinates (Zhang et al., 2016). Empirical studies demonstrate that this dyad could affect employees' work performance and even personal life satisfaction (Han & Altman, 2009; Law et al., 2000; Taormina & Gao, 2010), as well as enhance participatory leadership. For example, *guan* dyads between Chinese employees and foreign managers at foreign-invested firms are positively related to joint decision-making and constructive controversy (Chen & Tjosvold, 2006). In exploring which factors affect this dyad, Zhang et al. (2016) found that the motives for *guanxi* (career concerns, personal life, in-group, and social desirability) can account for the differences in the strength of the dyad. Other studies stress the role of personal characteristics in the development of this dyad (Han & Altman, 2009).

Guan dyads at the interorganizational level usually refer to social ties between managers of different organizations as either political ties or business ties to gain competitive advantage and

achieve better performance (Chen et al., 2013; Luo, Huang, & Wang, 2012). Because *guan* is associated with trust, it can reduce the risk that organizations might confront in an uncertain environment. Through *guan* dyads, managers can obtain valuable information about the external environment, such as changes in government policies and market reforms (Gu et al., 2008). Based on two interviews and a survey at 850 Chinese firms, Bian (2008) revealed that startup firms were more likely to grow out of the founders' *guan* dyads. His data show that 97% of these firms used *guan* dyads to mobilize financial capital at the initial stage. The survey results show the importance of *guan* dyads in attracting the first business order and reducing the cost of contracts.

The positive relationship between *guan* dyads and firm performance can be moderated by some organizational factors, such as the quality of *guanxi*, industrial conditions, the market, and the institutional context (Guo & Miller, 2010; Lee et al., 2001; Opper et al., 2017). After controlling for firm characteristics, Peng and Luo (2000) found that the positive influence of managerial ties on firm performance is much stronger at small firms, firms in service industries, and firms in industries with lower growth. The dynamic of *guan* dyads in the entrepreneurial process also needs to be noted. For example, Guo and Miller (2010) showed that in knowledge-intensive industries, *guan* dyads are more likely to be built and maintained through sharing information and knowledge, rather than through the exchange of gifts or favors. Bian (1997) also pointed out that the ties most mobilized in China were strong ties and indirect ties.

The dark side of guan dyad

Portes (1998) pointed out that social capital has a negative side, such as locked-in effects, and so does *guan*. First, *guan* requires investment but has uncertain returns (Peng & Luo, 2000).

During interactions, *guan* cannot guarantee returns, which may create burdens for operations (Opper et al., 2017). In addition, after firms receive favors from other organizations via *guan*, they are expected to return these favors, following the rules of reciprocity (Gu et al., 2008). Hence, using *guan* can also create risks for firm performance. For example, Opper and colleagues (2017) find that the risk aversion and risk perception of the CEO could affect their mobilization of *guan* dyads.

Second, *guan* dyads are specific personal assets (de Pablos, 2005). *Guan* dyads are personalized because exchanges of favors are based on personal morals and affective trust (Li, 2007). Although all *guan* dyads have various positive effects, they are fragile and volatile. If individuals with valuable *guan* dyads are dismissed, the organization may lose its ability to sustain its competitive advantage (Tsang, 1998). Hence, Gu and colleagues (2008) point out that firms may be constrained or hindered by employees with valuable and strong *guan*.

Finally, *guan* dyads benefit only the people who use them but could be harmful to an entire community or society (Dunfee et al., 2001; Lovett et al., 1999). Intra-organization *guan* dyads may create organizational injustice, which impedes cooperation among organization members (Han & Altman, 2009). Chen et al. (2004) found that the negative effects of *guan* dyads on trust are due to the bases of these dyads. *Guanxi* between managers and certain employees based on kinship and a common hometown can reduce trust with these managers among other employees. In China, *guanxi* is often related to nepotism, cronyism, corruption, and rent-seeking (Karhunen et al., 2018; Luo et al., 2012;). However, little empirical work has examined the negative side of *guan* because of unwillingness and hesitation by respondents in answering questions about it.

Xi Networks

The defining features of xi network

Xi comprises the notions of both "factional groups" and "strings in a knot."⁴ In a way that is similar to the differential mode of association (Fei, 1992 [1947]), the focal person (focal node, or ego) is "at the center of a series of concentric circles" (Redding & Wong, 1986, p. 284), but those who are related to this focal person (alters, or nodes) are connected in a differentiated pattern based on their proximity to the focal person (Chen & Chen, 2004).

Focal people come in two types, yielding two types of ego network: (1) elites with high social status and extensive resources, which we can call an "elite ego" in an "elite ego network," and (2) a non-elite with low social status and limited resources, which we call a "non-elite ego" in a "non-elite ego network." In this sense, *xi* can be represented by an "elite ego network" with an elite at the center and other elites as well as non-elites on the periphery, as in a hub and spoke structure. However, a typical *xi* network consists only of an elite and his/her non-elite friends as followers or subordinates, a subset of a large "elite ego network," which we call a direct *xi* network, whereas the other elites form indirect *xi* networks for that elite ego. Hence, we focus on this subset. In other words, a *xi* network is a particular type of egocentric network in the form of a small clique with strong *guan* dyads between at least one focal elite and at least two non-elite subordinates (Gu, Luo, & Liu, 2019).

Although each Chinese person, in principle, has an egocentric network, this differs from a *xi* network. The focal person in a *xi* network as an elite ego must control critical resources and play the role of a resource allocator. Hence, *xi* commonly emerges and evolves from an elite's

⁴ We discuss the second meaning of xi as a knot in the next section.

egocentric network. For instance, Chiang Kai-shek and his Whampoa [Huangpu] Clique emerged from their teacher-student ties as *guanxi*, with Chiang at the center (Dickson, 1993).

The underlying bases of xi network

In general, *xi* is based on a combination of *trust* and *assurance* among individuals who have common acquaintances and interests in a multilateral relationship with constraints based on common social norms. To understand these two underlying bases, it is important to distinguish trust and assurance. Yamagishi and his colleagues argued that, in contrast to trust, which is based on knowledge about personal characteristics, "assurance" is based on knowledge about the incentive structure (Yamagishi & Yamagishi, 1994; Yamagishi, Yamagishi, Takahashi, Hayashi & Watabe, 1995).

First, with regard to trust, *xi* is a network centered on a focal person and all those with strong ties with the focal person, including distant kinship ties and pseudo-kinship ties, as closer to the ego (the inner group) as well as regular friendship ties more distant from the ego (the outer group) (Li, 2007; Luo & Yeh, 2012). Further, the inner group is much denser, with high closure with all members being interconnected, while the outer group is much less dense, with many structural holes between those members. Directly associated with tie strength, the underlying bases of *xi* networks are different levels of trust and obligation (Li, 2008; Yamagishi & Yamagishi, 1994; Yamagishi, Cook & Watabe, 1998). Trust is rooted not only in a trustor's expectation of a trustee's capability but also in the expectation of the trustee's goodwill in terms of intent and commitment. Hence, trust among individuals in a specific xi network is such that all *xi* members are expected to engage in exchanges of favors with one another whenever necessary.

Second, not all members in a specific *xi* network know everyone else in it. So, assurance becomes another underlying basis of a *xi* network. However, when two members in the same *xi* network meet each other for the first time, even though there is no "personalized trust" (because they do not know each other personally), they still bear each other goodwill that is "assured" thanks to their membership in the *xi* network.

Assurance is rooted in the existence of a third party in a *xi* network, a fundamental characteristic. In a specific xi network, two members not only expect to share continuous ties but also anticipate that fellow members in the same network may know what is going on between the two members (Hwang, 1987). The "common third party" will evaluate their interactions in accordance with the social norms of that xi network. Even though interactions between individuals may not last long, their reputations will stay for a much longer period of time (Luo & Yeh, 2012). Because many individuals tend to be embedded in multiple *xi* networks, this reputation will not only be shared within one specific xi network but also spread to other xi networks. This kind of word-of-mouth reputation will further enhance or undermine each member's ability to leverage or use resources both within and across xi networks. Consequently, individuals must behave cautiously to maintain and enhance their reputation in a given xi network. Hence, maintaining a good reputation is highly relevant to xi networks. Because of the role of "common third party" and the effect of reputation, all members of xi networks monitor one another's behavior (Luo, 2011). Hence, members do not overuse or take advantage on other members in the same xi network, even when it is possible to do so. In this sense, transaction costs are lower in a xi network than without it, while transaction values are in a xi network than without it (Li, 1998, 2008).

The process of building xi network

Xi networks build up around an elite's egocentric network. The core members, who are often considered the inner group (Luo & Yeh, 2012), are those who share particularly strong ties with the focal elite. In this small clique, members are required to be loyal to the elite and to one another as a group, so the principles of loyalty and obligation are paramount. The strongest trust among these members is as more sentimental than instrumental. They have strong commitment to the focal person and to one another, so the intentional certainty is extremely high. Hence, trust here refers to personalized trust as a choice (Li, 2008), similar to that for pseudo-kinship ties such as a cocoon (Burt & Opper, 2017; Zhao & Burt, 2018). However, in the case of the outer group, which is composed of ordinary friends of the focal person, the level of trust is weaker than that for the inner group. Even though these people also have personalized trust with the focal person, such trust is more instrumental than sentimental.

As Hwang (1987) pointed out, a dyadic tie without a third party is not sufficient to be considered *guanxi*. In his definition, two Chinese people need to share one or more acquaintances *in common* to form *guanxi*. Hence, we argue that the minimal *xi* network is a triad relationship, which is also the fundamental component of a *xi* structure. Simmel (1950) provided a theoretical basis for the idea that social triads are fundamentally different in character from dyads. Following his argument, Krackhardt (1999, p. 186) defined a "Simmelian tie" as "two people are connected to one another when they are reciprocally and strongly tied to each other and they are each reciprocally and strongly tied to at least one third party in common." In sum, the establishment of a *xi* network is not just a matter of any sort of repeated exchanges but a process of intensive interplay among three or more social actors.

The operating effects of xi network

Based on the empirical results, what we know as *xi* has critical impacts on individuals, especially entrepreneurs. As mentioned earlier, the *xi* network of an entrepreneurial ego plays the central role at the startup stage, as reflected in the metaphor of cocoon (Burt & Opper, 2017; Zhao & Burt, 2018). The social contacts of entrepreneurs have been built and maintained for a long time, so they highly trust one another. Hence, members of a *xi* network tend to provide the startup with valuable support, especially at the founding stage and at the first significant event in the startup process (Zhao & Burt, 2018).

It is not difficult to prevent and resolve conflicts within *xi* networks. As stated above, the very presence of a "common third party" can moderate the conflict and reduce the risk of *guanxi* breakdown. As Simmel (1950, pp: 145) pointed out, "the appearance of the third party indicates transition, conciliation, and abandonment of absolute contrast." Under some circumstances, the third party (especially the focal ego) does not even need to take serious actions to mitigate dissension between two parties who are in the same *xi* network. The mediation could occur in different ways, such as a gesture, a way of listening, and even the presence of that person, as sufficient for the other two to work toward consensus. Moreover, *xi* networks increase trust among all members, so self-interested behaviors will be regarded as unethical. Hence, *xi* networks have the characteristics of institutions in terms of normative rules to guarantee "proper" behavior among the members of a *xi* network.

Further, *xi* networks also influence their members' behavior based on their different positions within that network. Surprisingly, in contrast to the core members of a *xi* network, peripheral members usually need to work harder, such as taking on extra responsibilities and offering extra services. This is similar to when people with low ascribed status (even with high

achieved status due to the low sense of security) tend to conform to conventional practices more than those with high ascribed status (Prato et al., 2019). As discussed before, building trust is critical in the developmental process of *xi* networks. Hence, all members of a *xi* network, especially those on the periphery, have to actively demonstrate their loyalty and commitment to the entire *xi* network, so as to gain personalized trust from both the focal elite and other members (Gu et al., 2019; Luo et al. 2016).

The dark side of xi network

In general, *xi* networks can have negative effects, or a dark side, in five ways. First, each *xi* network has great inequality due to the different status or position of the focal elite and the peripheral non-elite members. Larger *xi* networks consisting of multiple *xi* networks as constituent small cliques with unequal status and positions have a similar problem (Gu et al., 2019). This problem is somehow related to the Confucian value of hierarchical status, in which non-elite members are expected to show deference to the elite that holds authority and power in a *xi* network (Chen et al., 2004). Second, the unequal status or position within and across *xi* networks tend to persist and worsen over time, so the problem of inequality can be long term. This problem is exacerbated by the relatively high degree of exclusivity (related to clustering or assortativity for vertically differentiated status or position), a major barrier to change and openness (Ahuja, Soda & Zaheer, 2012; Luo et al., 2016).

Third, the concentration of power in the hand of the focal elite with the most favorable status or position in a *xi* network often results in some forms of corruption simply because concentrated power is likely to be associated with corruption. Fourth, the focal elite and his/her

core members in the inner group tend to shield one another in a *xi* network from the corruption and other types of wrongdoing. This is similar for all elites across different *xi* networks.

Last, despite a high-level internal harmony in a specific xi network, the harmony relies on the existence of a core member. If the core member disappears unexpectedly, xi network tends to break up into some sub-xi networks or a new core member will emerge. However, the transition period of xi network is often chaotic, such as the early period of post-Mao era (1976-1979).

Table 5 summarizes the core issues concerning *guan* dyads and *xi* networks.

<Insert Table 5 about here>

REDIRECTING FUTURE RESEARCH

In this section, we highlight the salience of studying the holistic and dynamic interactions between *guan* and *xi* in both directions in an iterative cycle, by discussing, first, why and how *guan* can shape *xi* and, then, why and how *xi* can also shape *guan*. We specify four mechanisms of interaction: the first set of two mechanisms (trust conversion and trust transfer) shows the impact of *guan* on *xi*, and the second set of two mechanisms (transforming weak trust into strong trust and multiplexity) shows the impact of *xi* on *guan*. Our proposed redirection of further research mirrors the call for more attention on why and how networks emerge and evolve over time, especially the potential role of active or proactive agency by network members in modifying network structure, representing a major shift from the static and passive or reactive views in the past (for a review, see Ahuja et al., 2012). We evoke the well-known notions of bridging ties and bonding ties in discussing the interplay between *guan* and *xi* (Adler & Kwon, 2002; Putnam, 1993; for a more recent review, see Halevy, Halali, & Zlatev, 2019).

Expanding Xi Networks by Bridging New Guan Dyads

Once the initial *xi* network is formed, it can expand by taking on new members. Its process of expansion involves interactions between existing *guan* dyads inside and outside the *xi* network. For instance, a potential newcomer to a specific *xi* has no direct contact with the focal ego; otherwise, he or she would already be a member of that *xi* network. However, a newcomer can get in contact with the focal ego directly or indirectly by joining a *guan* dyad with at least one non-focal member in the *xi* network, who acts as a third-party reference for the newcomer to join the *xi* network. Because it is much harder for a newcomer to have direct contact with the focal ego, the most fruitful approach is through a non-focal member as a third-party reference. Further, even though the tie between the newcomer and the reference in a *guan* dyad is already strong, the initial trust between the newcomer and all other members of the *xi* network is rather weak, with high perceived intentional and behavioral uncertainty. In other words, although both the newcomer and other members of the *xi* network share mutual trust with the third party, little mutual trust exists between the newcomer and other members, which is also the case for the tie strength between the newcomer and the focal ego.

In this situation, a newcomer must demonstrate his/her loyalty and commitment to the *xi* network to earn trust from all or most of the members. This is generally a slow process, but it can be dramatically accelerated if the person who referred the newcomer plays a critical role in extending trust on behalf of the newcomer (Burt & Knez, 1995), thus facilitating the expansion of interpersonal trust from the dyad domain to the network domain (Li, 2008). The mechanism of trust transfer can occur at the level of both the *guan* dyad and the *xi* network. At the level of the *guan* dyad, trust transfer helps two parties develop strong ties through the referral of a third party (Bian, 1994); at the level of a *xi* network, trust transfer helps develop strong ties between three or

more parties through the referral of one or more third parties (Shipilov & Li, 2012). Only after trust has been transferred from the unitary domain (i.e., the *guan* dyad between the newcomer and the reference) to the multilateral domain (with the *xi* network as a collective system) can trust transfer serve as a mechanism for expansion of a *xi* network. In other words, the process of expanding a *xi* network is enabled by trust transfer from existing members referring potential newcomers, which constructs an ever-larger social network (Karhunen et al., 2018). In this way, trust transfer is related to bridging ties more than to bonding ties (Adler & Kwon, 2002; Halevy et al., 2019; Putnam, 1993). More specifically, trust transfer is similar to a *weak form* of "moderation" for a "reinforcing broker" to span boundaries with information and trust so as to enhance the tie strength from non-ties to weak ties, thus bridging new ties in an open triad or network when two or more members are disconnected (Halevy et al., 2019). In sum, trust transfer is salient for bridging new *guan* dyads in the process of *xi* expansion.

Consolidating Xi Networks by Bonding More Guan Dyads

As discussed above, the simplest and most fundamental *xi* network is a triad, and triads can be either open or closed. If a tie exists between any two persons in the triad, then the triad is closed; otherwise, it is open. When two of the three parties are not connected, a structural hole is found, and the network is not very dense. An open triad can become closed (Huang et al., 2017), though in ordinary contexts, this process is time-consuming and can often be disrupted or terminated. However, in the context of a *xi* network, the process of converting weak ties into strong ties can be accelerated by the trust between two or more parties within the same network via trust conversion—that is, the mechanism of transforming weak trust into strong trust (Li, 2008). In particular, trust conversion at the level of a *xi* network is achieved by connecting parties that were previously sparsely or loosely coupled to attain high density or closure on a sustainable basis.

This mechanism solves the problem in which members lack dense interconnected ties, because they rely on trust transfer to expand a *xi* network rapidly, by bridging the structural holes between newly added and existing *guan* dyads to make them as interconnected as possible. The benefit from structural holes is personal, whereas the benefit from closure or density is public (Ahuja et al., 2012; cf. Burt, 1992; Coleman, 1990).

Finally, the mechanism of trust conversion operates at both the *guan* dyad and *xi* network levels. Only when the basis of trust changes from depersonalized to personalized can this trust conversion help consolidate a *xi* network. In other words, trust conversion enables the consolidation of a *xi* network by interconnecting sparsely or loosely connected ties so as to bridge structural holes and create closure or density in it. So, trust conversion is associated with bonding ties more than with bridging ties (Adler & Kwon, 2002; Halevy et al., 2019; Putnam, 1993). In this way, trust conversion is similar to a *strong form* of "moderation" for either "helpful brokers" or "reinforcing brokers" to span boundaries with assurance and facilitation so as to increase tie strength in a closed network between two or more members with weak ties (Halevy et al., 2019). In sum, trust conversion is salient to bonding *guan* dyads in the process of *xi* consolidation.

Deepening Guan Dyads by Creating Xi Networks

As we discussed earlier, due to the presence of one or more third parties for two or more members within the same *xi* network, there is a greater assurance and facilitation at the level of *xi* network than that of *guan* dyad (Lomi & Pattison, 2006; Uzzi, 1996). In particular, as Hwang

(1987) mentioned, the Chinese tend to "take care of the Buddha's 'face (*mianzi*)' before turning down a monk's plea" (不看僧面看佛面 in Chinese). It is worth noting that the face of *guan* dyad is different from the face of a third party due to different roles. We have identified two major ways in which *xi* networks influence one or more *guan* dyads. First, we use Buddhas as a metaphor for the third party elite social status in a *xi* network. The concept of "face," which refers to a person's social status, achieved by successfully performing specific social roles that are well recognized by others within the same community (Hu, 1944), is relevant here. This status can be measured on both personal and impersonal dimensions: personal traits (e.g., knowledge and ability) and impersonal forces (e.g., wealth and power), with both representing social achievements. Social connections are frequently invoked by social actors to judge or gauge a person's social status (Ho, 1976; Jacobs, 1979). It is widely recognized that social status is a measure of social influence, often in the form of bargaining power in social exchange (Lin, 1999, 2001).

We use three scenarios to illustrate how "face" influences the role of *xi* networks in shaping *guan* dyads. In the first scenario, a monk does not belong to any *xi* networks of Buddhas. This monk usually has little "face" and little bargaining power in social exchange, either inside or outside a given *xi* network because he has low social status on account of his social isolation. In the second scenario, the monk belongs to a *xi* network of a specific Buddha, but he is not closely connected with either that Buddha or any other elite members close to the Buddha in that *xi* network. Even though this monk still has a low status inside the given *xi* network, his status is much enhanced outside the given *xi* network due to the Buddha's "face", resulting in a moderate bargaining power in social exchange. In the third scenario, the monk is closely connected with

either Buddha or another elite member in that *xi* network, so he enjoys high social status both inside and outside the given *xi* networks, thus strong bargaining power in social exchange.

The impact of this kind of status was well documented in China by Bian (1997) with respect to a job search. For instance, the face of third-party referral with higher-status in a *xi* network (e.g., Buddha) is more powerful than the face of *guan* dyad with lower-status (e.g., monk). In a second paper, Bian (2001) revealed that Chinese banquets, in contrast to the typical banquet in the West, which is attended only by hosts and guests, have a third type of banquet attendees: accompanying guest (陪客 in Chinese). This third type neither seeks nor offers favors, but can be viewed as a critical part of the banquet because he enjoys strong relations with both the host and the invited guest, especially the latter so that the third type can be framed as a special type of Buddha because he could exert strong influence over the invited guest to provide the specific favor sought by the host. In sum, the so-called "face" of Buddha can represent the role of high social status in shaping the power distribution both inside and outside a given *xi* network.

Second, we can also take Buddha as a symbol of the social status of a particular institution that is a legitimate force in a *xi* network in terms of impersonal forces beyond personal traits as discussed earlier. A highly legitimate institution can shape the behavior of social actors as a group (Powell & DiMaggio, 2012; Scott, 2003). For instance, for two parties who do not know each other well (thus having no trust or only weak, depersonalized trust), a *xi* network can facilitate the development of mutual trust by offering a perception of control and security (Li, 2008). In this sense, *xi* networks have some properties of an institution and can provide an institutional basis for more rapid development of trust among network members. Because belonging to the same *xi* network creates a shared institutional context, trust conversion within that network accelerates the pace and enhances the quality of trust development (Bauer, Bodner, Erdogan, Truxillo & Tucker, 2007; Li, 2007, 2008). For instance, the peer pressure exerted by a *xi* network creates social sanctions for network members to behave in accordance with the social norm or logic of that network (Yamagishi & Yamagishi 1994; Yamagishi et al., 1998).

In sum, Buddha can facilitate the transfer of trust for the purpose of bridging disconnected parties within and beyond the same network in two ways. In the first way (in terms of high status or position in a *xi* network as personal traits) and in the second way (in terms of high institutional legitimacy or institutional assurance in a *xi* network as impersonal forces), they both play the role of bridging ties (Adler & Kwon, 2002; Halevy et al., 2019; Putnam, 1993).

Thickening Guan Dyads by Combining Xi Networks

As mentioned earlier, each *guan* dyad derives from somewhat shared bases, either ascribed, in terms of being assigned at birth or assumed involuntarily later in life, such as blood-based kinship, family status, gender, age, race, and hometown, or achieved, in terms of being socially acquired via effort and merit, such as non-kin friendship, education, profession, alumni membership, workplace, and hobbies (Li, 2007). Each of these bases can be framed as a "social string" that connects two or more parties in both *guan* dyads and a *xi* network, whereas a set of these bases form multiple and diverse strings that can delineate the multiplexity of social ties. *Multiplexity* refers to the co-occurrence or overlapping of multiple bases of interaction (Verbrugge, 1979), which could be different roles in exchange (e.g., Chinese mentorship, with the teacher as an adopted father and student as an adopted son, in Zhou, Lapointe & Zhou, 2018; supplier as buyer, in Shipilov & Li, 2012), and different logics of exchange (e.g., instrumental logic for economic exchange and sentimental logic for social exchange; Uzzi, 1996, 1997) at either the dyadic or network level.

To a large extent, multiplexity suggests that one type of social ties can substantially shape the initial formation and subsequent change of another type (Shipilov & Li, 2012). Specifically, the effect of multiplexity is to expand and deepen the interaction between two (for a dyad) or more (for a network) parties, where multiple sets of roles or logics are superimposed (Verbrugge, 1979), so the tie strength between such parties is stronger when they are bonded and bridged by multiple reinforcing strings (Lomi & Pattison, 2006; also Ferriani, Fonti & Carrado, 2012; Rank, Robins, & Pattison, 2010). In the Chinese cultural context, *guan* dyads and *xi* networks are more likely to be multiplex in nature because Chinese traditional culture takes a holistic, dynamic, and nonlinear approach to interaction, with a mixture and balance of diverse roles and logics (Li, 1998, 2008, 2016). In this sense, most *guan* dyads and *xi* networks can be bonded and bridged by their multiplex roles and logics, leading to ever-growing interconnectivity across multiple levels of analysis.

We describe this phenomenon as a "multicolored Chinese knot." Each social base, norm, or logic is one type of monocolor string, and multiple strings can be tied together to form a large and strong multicolored knot. For instance, two or more people from the same hometown might graduate from the same university and then work at the same company. They thus share three bases of homophily, or three different "social strings" that bond (at the dyadic level) and bridge (at the network level) them into a single knot.

Despite the salience of multiplexity, as Shipilov and Li (2012: 474) pointed out, "when examining the determinants of dyadic relationships, many studies make a simplifying assumption that dyads arise from their members playing a single role ... and as a result they are embedded in a single type of relationships only." Future research should pay more attention to this largely neglected issue (Ahuja et al., 2012). For instance, the metaphor of a cocoon can be fruitfully

compared to that of multicolored Chinese knot (cf. Burt & Opper, 2017; Zhao & Burt, 2018). It would be interesting to open the black box of how elites and non-elites interact in the emergence and evolution of *xi* networks (Gu et al., 2019) as well as of how different *xi* networks interact in the emergence and evolution of a large, dynamic ecosystem (Ahuja et al., 2012).

Interplay between Bonding Ties and Bridging Ties

The four mechanisms mentioned do not work in isolation; rather, they work together in a reinforcing cycle. For instance, trust conversion and subsequent opportunities for conversion can be enhanced by trust transfer through broadening the scope of trust conversion, with new ties being bridged into a larger network via third parties, similar to the role of bridging ties (Li, 2007, 2008). Similarly, trust transfer and subsequent opportunities for transfer can be improved through trust conversion by deepening the level of trust transfer, with more ties bonded into a denser network, as in the role of bonding ties (Li, 2007, 2008). Both structural holes for bridging ties and density for bonding ties are necessary for effective innovation (Obstfeld, 2005).

Finally, if *xi* networks are open, there are never-ending opportunities to interconnect different *xi* networks via the mechanisms of trust transfer, trust conversion, converting weak ties to strong ones, and multiplexity—all with both bridging and bonding roles, in repeated interactions. From this perspective, the debate over the relative advantages of structural holes and structural closure can be easily settled, because the two approaches are equally necessary and effective (Li, 2007; also see Hite & Hestley, 2001; Obstfeld, 2005; cf. Burt, 1992; Coleman, 1990).

However, this is only half the story. The other half is that most structural holes are only temporary, for private advantage in the process of "intermediation," while public benefits from networks as a whole can be shared, in various degrees, by most members of a network in the process of "moderation" above and beyond the process of "intermediation" for a holistic and dynamic ecosystem (Halevy et al., 2019; also see Ahuja et al., 2012); in-group public sharing in particular is rooted in the Chinese historical and cultural context (Gu et al., 2019; Li, 2007; Xiao & Tsui, 2007). In contrast to the typical network in Japan and South Korea, which mostly has strong ascribed ties (Horak and Taube, 2016), as well as the typical network in the West, which mostly has weak achieved ties, *guanxi* is a balance between the two, consistent with the Chinese tendency toward yin-yang balancing (Li, 2007, 2016).

CONCLUSION

In this study, we first provided a systematic review of the current literature on *guanxi*, especially by differentiating *guan* dyads in terms of substantial dimensions from *xi* networks in terms of structural dimensions. Second, based on this differentiation of its two core constituent dimensions, we proposed a redirection of future research on *guanxi*, in which *guan* dyads and *xi* networks are analyzed in terms of their holistic and dynamic interaction, rather than in isolation from each other. These are our main contributions to the literature.

Compared to other cultures, we believe that multiplexity and the flexibility in bonding and bridging are indigenous to the Chinese culture such as the capabilities of *guan* and *xi* to balance diverse roles and logics toward the multicolored Chinese knot. However, this is not generalizable to the entire East Asia. Recent studies have shown that in South Korea, for instance, bonding and bridging of so-called *yongo* ties outside the *yongo* network does not work due to the exclusive nature of *yongo* (Horak & Taube, 2016).

Our study leads to several recommendations for future research on *guanxi*. First, it should build on our reconceptualization of *guanxi* in terms of first differentiating and then integrating

"guan" dyad and "xi" network. This is consistent with the repeated calls to study why and how networks emerge and evolve holistically and dynamically, especially about network structure. The second recommendation is for research attention to shift toward process-oriented research as necessary, especially about the interplay between *guan* dyads and *xi* networks. In particular, the issue of multiplexity is the most salient, given the link between multiplexity and the logics of exchange as well as the link between multiplexity and the strengths of both *guan* dyads and *xi* networks. It would be interesting to study the process of evolution from *xi* networks as cocoons to *xi* networks as multicolored Chinese knots. The interaction between diverse *xi* networks could be studied, for example, by framing a large triad as consisting of three small triads, with one small triad as an elite clique at the center, and the other two small triads as non-elite cliques on the periphery. Further, other structural dimensions should also be examined around the central theme of structural openness-closure, including the dimensions of centrality, density (closure vs. structural hole for connectivity or distribution), diversity (heterophily vs. homophily), and assortativity (clustering for vertically differentiated statuses or positions).

The third recommendation is to open the black box of elite-subordinate interaction in the same xi network and the other black box of elite-elite interaction between distinct xi networks (cf. Gu et al., 2019). It is paradoxical that the elites in xi networks are the most powerful in resolving inter-network conflicts, but at the same time they seem to be the least effective in negotiating the truce between conflicting xi networks because they are tied too strongly to their own xi networks. The fourth recommendation is to compare different small-world networks, such as the six degrees of separation and the three degrees of influence (cf. Christakis & Fowler, 2009; Watts & Strogatz, 1998). The fifth recommendation is to differentiate between kinship and non-kinship ties, rather than combining these distinct types of ties in the same category (cf. Burt

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& Opper, 2017; Zhao & Burt, 2018). The sixth recommendation is to provide empirical evidence, both qualitative and quantitative, necessitating both case studies and large-sample studies.

The last recommendation is adopting the Chinese cognitive perspective of yin-yang balancing could enable an understanding of *guan* dyads and *xi* networks in terms of the balance and interplay between strong and weak ties, instrumental (economic) and sentimental (social) logics, ascribed and achieved status, and positive and negative outcomes for *guan* dyads. Other aspects that could be explored through this lens include the balance between the structural elements of centrality and peripheral; density (closure with bonding ties) and structural holes (openness with bridging ties); heterophily (multiplexity) and homophily, equality and inequality in a *xi* network; positive benefits and negative benefits; and public gains and private gains.

We hope that our reconceptualization of *guanxi* and recommendations for future research on it will help advance work on this complex and multifaceted topic.

Cluster	Description	Highly cited ⁵ theoretical	Highly cited ⁵ empirical
		studies	studies
1	Nature, source, and effect of	Hwang (1987)	Xin & Pearce (1996) ^a ;
	guanxi		Park & Luo (2001) ^b
2	Nature of guanxi, theoretical	Yang (1994); Luo (1997);	Morgan & Hunt (1994) ^a ;
	orientation, and	Lovett et al. (1999);	Yeung & Tung (1996) ^a
	psychological and ethical	Dunfee & Warren (2001);	
	perspective	Fan (2002)	
3	Guanxi and social structure,	Granovetter (1985);	Luo (1997) ^a ; Peng & Luo
	empirical studies, and the	Boisot & Child (1996);	(2000); Gu et al. (2008) ^c ;
	effect of guanxi on firm	Standifird & Marshall	Davis, Leung, Luk, &
	performance	(2000); Wang (2007)	Wong (1995) ^a
4	Development and source of	Tsui & Farh (1997); Chen	Farh et al. (1998) ^c ; Chen
	guanxi	& Chen (2004)	et al. (2004) ^b

 Table 1. Major Clusters of Research on Guanxi (1980–2018)

a. No discussion of the effect size.

b. Reported R^2 for control variables separately from independent variables, but did not discuss the effect size.

c. Discussed the effect size but did not provide R^2 of IVs separated from control variables.

Authors	Key content	Theoretical findings
Hwang (1987)	A conceptual framework that illustrates the relationship among <i>guanxi</i> , granting favors, face, and reciprocity	<i>Guanxi</i> types: instrumental, expressive, and mixed ties. Different ties follow different rules on reciprocity.
Yang (1994)	Analysis of how Chinese guanxi is mobilized and the relationship between guanxi and state power (anthropological research)	The mobilization of <i>guanxi</i> is carried out through gifts and banquets. Changes in the political environment at the national level affect the mobilization and utility of <i>guanxi</i> . <i>Guanxi</i> is oppositional to state power.
Yan (1996)	Analysis of building guanxi and its mobilization in rural China (anthropological research)	<i>Guanxi</i> is built and maintained through various festivals and folk scenes, accompanied by gift giving.
Tsui & Farh (1997)	<i>Guanxi</i> is compared with relational demography; <i>guanxi</i> and work outcomes	<i>Guanxi</i> have a strong effect on work outcomes, such as communication frequency and supervisor judgment.

⁵ We defined highly cited studies as those that are cited more than fifty times in the WOS database.

		Guanxi is valuable, rare, and imperfectly imitable
Tsang (1998)	Nature, basis, and value of <i>guanxi</i>	but also difficult to sustain because it is held by individuals, rather than organizations.
Lovett et al. (1999)	Ethical issues involved in guanxi	Because of environmental uncertainty in China, it is more efficient to doing business on the basis of <i>guanxi</i> than formal contract.
Standifird & Marshall (2000)	Benefits of using guanxi	<i>Guanxi</i> -based business practices can make transaction costs lower than those based on other structural alternatives.
Dunfee & Warren (2001)	Normative analysis of <i>guanxi</i>	<i>Guanxi</i> practice by certain firms can have negative effects on economic efficiency and the well-being of ordinary people
Fan (2002)	Ethical issues involved in <i>guanxi</i>	<i>Guanxi</i> can benefit individuals and organizations at the expense of other actors. Therefore, <i>guanxi</i> may have a negative impact on society.
Yang (2002)	Result of using guanxi	<i>Guanxi</i> is resilient in new social institutions, structures, and environments with globalization.
Li (2007)	Nature of <i>guanxi</i> and its antecedents, content, process, and consequence	<i>Guanxi</i> can prevent negative behavior (e.g., corruption and rent-seeking) and promote positive behavior (e.g., trust and collaboration) in an environment with high uncertainty
Wang (2007)	Differences between guanxi and relationship marketing	Key elements in relational marketing are trust and relational commitment while the key elements of <i>guanxi</i> are reciprocity and empathy.
Qi (2013)	<i>Guanxi</i> 's relationship with corrupt practices and its cultural characteristics	<i>Guanxi</i> is a long-term relationship shaped by trust in mutual obligations and reciprocity. With the improvement of China's formal market institution, the importance of rent-seeking <i>guanxi</i> declines, but favor-seeking <i>guanxi</i> is still important.
Horak & Taube (2016)	Differences between guanxi and yongo (informal networks in South Korea)	Both kinds of networks (<i>guanxi</i> and <i>yongo</i>) are developed and maintained through reciprocal actions and generated network cohesion benefits, but their bases, ties, diversity, and bridging effects are different.
Karhunen, Kosonen, McCarthy & Puffer (2018)	Dark side of guanxi	The form of corruption (cronyism, bribery, and extortion) is determined by the nature of <i>guanxi</i> (open, closed, or negative reciprocity).

Level	Authors	Dependent variables	Independent variables	Sample size	of effect	Effect size of independen t variables	Effect size of control variables
Interorg	Xin &	Importance of	state-owned	258	No	NA	NA
anizatio	Pearce	connection	enterprises	230	110	1111	1 17 1
nal			(SOE; dummy				
	()		variables)				
		Connection	SOE company	-			
		defends against	(dummy				
		threats	variables)				
		Government	SOE company				
		connection	(dummy				
			variables)				
		Trust in	SOE company				
		connection	(dummy				
			variables)				
		Give connection	SOE company				
		gifts	(dummy				
			variables)				
	Luo (1997)	ROI	The intensity of	128	No	NA ^a	NA ^a
			guanxi-based				
			marketing				
		ROI	The intensity of				
			guanxi-based				
			account				
			payables	-			
		ROI	The intensity of				
			guanxi-based				
			account				
			receivables	-			
		Domestic sales	The intensity of				
		growth	guanxi-based				
			marketing	-			
		Domestic sales	The intensity of				
		growth	guanxi-based				
			account				
			payables	-			
		Domestic sales	The intensity of				
		growth	guanxi-based				
			account				
			receivables				

Table 3. Summary of Key Quantitative Studies on *Guanxi*

	Total asset	The intensity of				
	turnover	guanxi-based				
		marketing				
	Total asset	The intensity of				
	turnover	guanxi-based				
		account				
		payables				
	Total asset	The intensity of				
	turnover	guanxi-based				
		account				
		receivable				
Peng &	Market share	Ties with other	127	Yes	0.18	0.55
Luo (2000)		managers				
	Market share	Ties with				
		government				
		officials				
	ROA	Ties with other			0.11	0.67
		managers				
	ROA	Ties with				
		government				
		officials				
Lee et al.	Guanxi	Decision-	306	No	0.13	NA
(2001)		making				
		uncertainty				
	Guanxi	Opportunism				
	Guanxi	Perceived				
		similarity				
	Relationship	Guanxi			0.02	
	quality					
	Interdependence	Guanxi			0.01	
Park &	Business guanxi	Ownership	128	No	NA ^a	NA ^a
Luo (2001)		structure				
	Business guanxi	Location				
	Business guanxi	Strategy				
		orientation				
	Business guanxi	Size				
	Business guanxi	Technology				
		skills				
	Business guanxi	Managerial				
		skills				
	Government	Ownership				
	guanxi	structure				
	Government	Location				
	guanxi					

GovernmentStrategyguanxiorientationGovernmentSize	
guanxi	
Government Technology	
guanxi skills	
Government Managerial	
guanxi skills	
Sales growth Business	
guanxi	
Profit growth Business	
guanxi	
Sales growth Government	
guanxi	
Profit growth Government	
guanxi	
Batjargal Density China or 157 No NA ^a N	NA ^a
(2007) Russian	
(Russian = 0)	
Network size Chinese or 158	
Russian	
(Russian = 0)	
Network Chinese or	
homogeneity Russian	
(Russian = 0)	
Ties strength of Chinese or 159	
Venture Capital Russian	
$\frac{\text{degree}}{\text{Intermediated}} = \frac{(\text{Russian} = 0)}{(\text{Russian} = 0)}$	
Interpersonal Chinese or trust Russian	
trust Russian (Russian = 0)	
	NA ^a
(2008) Market share <i>Guanxi</i>	NЛ
Channel Guanxi	
capability	
Responsive <i>Guanxi</i>	
capability	
).11
(2011) of government	
ties	
Ego-network size Number of	
of government membership	
ties channels	

		Ego-network size	Number of				
		of government	organizational				
		ties	channels				
	Ma (2015)		Number of	134	No	NA	NA
	(2010)	Startap	affection-based	101	110	1,111	1111
			circles				
		Startup	Number of				
		~ un top	business-based				
			circles				
	Burt &	Business success	Network	700	Yes	NA ^a	NA ^a
	Burzynska		constraints				
	(2017)	Number of	Network				
		employees	constraints				
		Annual sales	Network				
			constraints				
		Business patents	Network				
			constraints				
	Opper et al.	Government	Risk aversion	345	No	NA ^a	NA ^a
	(2017)	guanxi					
		Business guanxi	Risk aversion				
		ROA	Government				
			guanxi				
		ROA	Business				
			guanxi				
		Sales growth	Government				
			guanxi				
		Sales growth	Business				
			guanxi				
	Burt et al.	Trust	Closure,	4464	Yes	0.70	0.25
	(2018)		structural	(dyadic			
			embedding	ties)			
		Trust	Event contact	-			
		Trust	Interaction	-			
		Trust	Infrequent				
			contacts	-			
		Trust	Years known				
Intra-	Farh et al.	Trust in	Relatives	560	Yes	NA ^a	NA ^a
Organiz	(1998)	supervisor		(study			
ational		Trust in	Former	1)			
		supervisor	neighbors	22			
		Trust in	Relatives	32			
		supervisor	<u>Causa ul C</u>	(study			
		Trust in	Same place of	2)			
		supervisor	origin				

	Trust in	Former				
	supervisor	classmate				
Law et al.		Guanxi	161	No	NA	NA
	performance	Guanan	101	110	1,111	1,111
	Promotion	Guanxi				
Chen et al.		Guanxi practice	113	No	0.05	0.28
	management	r				
	Joint decision-	Supervisor-	163	No	NA	NA
	making	subordinate				
(2006)	U	guanxi				
	Constructive	Supervisor-				
	controversy	subordinate				
		guanxi				
	Supervisor-	Cooperative				
	subordinate					
	guanxi					
	Supervisor-	Competitive				
	subordinate					
	guanxi					
	Supervisor-	Independent				
	subordinate					
	guanxi		202		0.40	NT 4
	<i>Guanxi</i> family	Family	382	Yes	0.42	NA
& Gao		emotional				
(2010)		support			NT A	
	<i>Guanxi</i> family	Gregariousness Chinese values			NA 0.02	
	<i>Guanxi</i> family <i>Guanxi</i> family	Face			0.02 NA	
	<i>Guanxi</i> friends	Family			0.06	
	Guanai menus	emotional			0.00	
		support				
	<i>Guanxi</i> friends	Gregariousness			NA	
	<i>Guanxi</i> friends	Chinese values			0.20	
	<i>Guanxi</i> friends	Face			NA	
	Guanxi favors	Family			0.05	
	Outurn Invols	emotional			0.05	
		support				
	<i>Guanxi</i> favors	Gregariousness			0.12	
	<i>Guanxi</i> favors	Chinese values			0.20	
	<i>Guanxi</i> favors	Face			0.03	
	Co-worker	Guanxi friends			0.29	
	support					
	Co-worker	Guanxi favors			0.01	
	support					
	Life satisfaction	Guanxi favors			0.04	

Chen et al. (2011)	Procedural justice	Interpersonal- level guanxi practice	342	Yes	NA	NA
	Procedural justice	Group-level guanxi practice			0.13	
Luo (2011)	Binary trust	Acquaintance ties	3824 (dyadic	Yes	0.32	0.003
	Binary trust	Familial ties	ties)			
	Binary trust	Friendship ties				
Chen & Gable	Performance	Egocentric network size	93 (dyadic	Yes	0.07	0.39
(2013)	Performance	Egocentric network size squared	ties)			
	Performance	Dispersion evenness			0.03	
	Performance	Dispersion richness			0.01	
Luo et al. (2016)	Organizational citizenship behavior	In-group vs. out-group	498	No	NA ^a	NA ^a
	Organizational citizenship behavior	Supervisor's peripheral vs. core				
	Organizational citizenship behavior	Bridges vs. supervisor's peripheral				
Zhang et al. (2016)	Supervisor-	Career advancement	269	Yes	0.19	0.49
	Supervisor– subordinate guanxi (supervisor rate)	Team concern				
	Supervisor– subordinate guanxi (supervisor rate)	Personal life				
	Supervisor– subordinate guanxi (supervisor rate)	Impression management				

Supervisor-	Career		0.13	0.62
subordinate	advancement			
guanxi				
(subordinate rate)				
Supervisor-	Team concern			
subordinate				
guanxi				
(subordinate rate)				
Supervisor-	Personal life			
subordinate				
guanxi				
(subordinate rate)				
Supervisor-	Impression			
subordinate	management			
guanxi				
(subordinate rate)				

a. Authors did not reported R² for control variables separately from independent variables.

Authors	Key content	Key findings	Samples
Guthrie	The importance of	The significance of <i>guanxi</i> was 155 in-depth	
(1998)	guanxi in modern	declining in the urbanized and	interviews with
	China	industrialized economy	Chinese officials
			and industrial
NZ O			managers
Yueng &	The importance of	Useful and strong <i>guanxi</i> has a	Interview data from
Tung (1996)	guanxi	positive correlation with firm	19 firms that have
De Pablos	Differences	financial performance.business in ChinaEastern and Western managersInterview data from	
(2005)	between Eastern	have different understandings	12 world's leading
(2003)	and Western	of social networks, but they all	firms
	managers'	believe that the primary role of	111115
	cognition of social	networks and <i>guanxi</i> is to bring	
	networks	in information.	
Fu, Tsui, &	Dynamics of	Guanxi has various effects on	Interviews with top
Dess (2006)	guanxi, guanxi	knowledge management and	level managers in 16
	circles, and their	decision-making at different	Chinese high-tech
	effects	development stages.	firms in Beijing
Chen &	Guanxi's effects on	Guanxi can affect a firm's	Interview data from
Easterby-	a firm's	recruitment and decisions 24 Taiwanese-owed	
Smith (2008)	international	about company location. This	multinational
	strategy	kind of effect varies in	companies
		different industries.	
Guo & Miller	Development of	<i>Guanxi</i> networks change over	Interview data from
(2008)	Chinese	the stages of the	6 entrepreneurial
	entrepreneurs' guanxi network	entrepreneurship process; utility of <i>guanxi</i> depends on	firms in high- and low-technology
	guanzi network	development stage and	firms
		industrial-level factors.	111115
Han &	Supervisor and	<i>Guanxi</i> in workplace benefits	Qualitative analysis
Altman	subordinate guanxi	reciprocal exchange and	of 277 supervisor-
		perceived positive attributes;	subordinate dyads
		its dark side includes perceived	survey with open
		unfairness and supervisor-	questions at 6
		targeted impression	Chinese firms
		management.	

Dimensions	Guan Dyads	Xi Networks
Defining Features	Strong interpersonal ties, including both sentimental and instrumental elements.	Consists of the middle ring in the differential mode of association. The focal elite controls critical resources and play the role of resource allocator.
Underlying Bases	Both ascribed bases (such as distant kinship and relational demographics) and achieved bases (such as direct non-kinship tie and third-party reference).	Based on a combination of <i>trust</i> and <i>assurance</i> among individuals, so there is a strong peer pressure and third-party effect as social norms to govern member behaviors
Building Processes	Two-stage dynamic process: from no-ties to weak ties and from weak ties to strong ties.	Built around an elite's egocentric network in a three-step process: each elite building up his/her small clique; expanding by adding new ties; developing a larger network by connecting multiple small cliques via elites as the central clique
Operating Effects: Positive Side	Positive effects on personal and organizational performance; such effects are moderated by organizational factors as well as industrial, market, and institutional contexts.	Provide the necessary protection and support for its members at a broad level, especially via the third-party reference and as an institution, while non-elite members tend to show higher commitment.
Operating Effects: Dark Side	Risk of uncertain return; resources of <i>guan</i> dyad belong to certain persons rather than organizations; it may harm a group or community as a whole.	Four major problems: unequal status; such inequality persisting; unequal power leading to corruption; elites shield each other from corruption

Table 5: A Comparison of Guan Dyads and Xi Networks

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