Guanxi Networks in China[†]

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This paper explores the influences of the traditional Chinese culture on social relations in China. It provides an introduction to the concept of Guanxi, the notion that social connections are based on socially situated reciprocity. This is different from social interaction in Western society that is based on self-interest and equity. Guanxi represents the foundation of social networks in many Eastern countries. As such, the study of social networks in China requires scholars to examine Guanxi networks. The paper demonstrates how a Guanxi perspective might be added to the examination of various theories that comprise structural (network) theory, including social capital theory, social exchange theory, cognitive and contagion theories, and the role of homophily for the study of Chinese society and its social organizations.

Introduction

Social network analysis has developed rapidly over the past few decades. It has mainly been studied from the perspective of structural theory which emphasizes relationships among system components distributed in a non-random matter and the notion that a node's position in the network determines its behavior and cognitions (attitude, values, belief, knowledge and culture). The structural model of social network analysis generally relies on a one sided determinism, persistent patterns of relations are the causes of cultural contents (Barnett, 1988; Emirbayer & Goodwin, 1994). The structural model also asserts that actors in social networks only have a single motivation-instrumental gain across contexts without paying attention to the role of culture in shaping the character of social relations (Smith, 2003). The effect of culture on social relations has received very little consideration. Some scholars have argued that culture is not primarily linguistic, conscious and discursive but is embodied, tacit and unconscious, and plays a key role in shaping the evolution of social relations (Vaisey & Lizardo, 2010; Vaisey, 2008; Lgnatow, 2007; Lizardo, 2004; Bourdieu, 1984). In other words, in the study of social networks, taking culture into account does not simply mean adding a categorical variable in the explanatory

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equation. Scholars need to examine how a specific cultural idiom influences the network composition in a specific social context. This paper investigates the impact of the traditional Chinese culture on social networks in China, and argues that the traditional Chinese culture provides a unique Guanxi perspective on the understanding of social relations in China.

In the traditional Chinese culture, interpersonal relationships can be seen from the perspective of "Guanxi", which refers to social connections based on reciprocity (Gold, Guthrie & Wank, 2002). The concept of "Guanxi" has its roots in the traditional Confucian value of "perfect virtue" (仁 ren), which considers that others are the prerequisites for Self-Existence. The word "仁 (ren)" is composed of the combination of two words "human (人)" and "two (二)" implying a relationship between two people. This relationship indicates, "do not impose on others what you yourself do not desire" (Confucian Analects). Although Confucian ethics emphasizes the idea that one should love others as one self, and help others without any expectation of reciprocation, it is only "the ideal of Sages" (King, 1980). In reality, ordinary people follow the maxim not to forget what other people have done for you and do not forget the beneficence done to you, even if it is small. This is different from social interaction in modern Western society that is based on self-interest and equity (Greenberg & Cohen, 1982; Walster, Walster, & Berscheid, 1978). In the Chinese context, interpersonal communication networks involve the notion of Guanxi emphasizing reciprocity, and norms, which are much more socially situated than in Western society (Hwang, 1987). This means that reciprocity is not universal but a socially situated obligation fulfilled only within the social network in which people are embedded. This social network is the Guanxi network.

The concept of renqing (人情) is key to fully understand the Guanxi network. In ancient China, renqing was defined as consisting of happiness, anger, sadness, fear, love, hate and desire which are acquired at birth (Book of Rites). A person who is versed in renqing can feel others' emotions, cater to their tastes and avoid whatever they resent (Hwang, 1987). However, empathy is not the essence of renqing. In a Guanxi network, renqing is a resource that an individual can present to another person as a gift with the goal of social exchange (Homans, 1950, 1974; Blau, 1964). This means that internal feelings can only be satisfied through external behavior and material reciprocation, and to some extent it is sensitive and fragile to behavior and material reciprocation. From this perspective, renqing in Guanxi networks seems more practical than western pragmatism. To achieve personal goals and obtain desired materials for survival, Chinese people should follow the renqing rules to keep in contact with the acquaintances in their Guanxi network, and exchange gifts, including money, goods and services, from time to time. When a member of their Guanxi network gets into trouble, they should offer help and "do a renqing" for that person because this will place them in a favorable position for the future allocation of some others' resources.

The study of social networks in China requires scholars to examine Guanxi networks. Specifically, scholars should add a Guanxi perspective to the examination of social capital theory, social exchange theory, cognitive and contagion theories, and the role of homophily in the study of social organizations (Monge & Contractor, 2003). In the following sections, various attributes of Guanxi are considered for the explanation of communication networks. In this paper, Guanxi between actor i and actor j is represented as GX_{ij}.

Another manifestation of social capital: Guanxi capital

Social Capital (Coleman, 1988) exists in the relations among people and often facilitates certain actions of individuals. It is less tangible than human capital that represents attributes of people, such as prestige and intelligence, since it emphasizes obligations, expectations and trustworthiness coming from the relations among people. Previous analysis of social capital in networks is best represented in theory of structural holes (Burt, 1992, 1997, 2001). People invest their social capital by filling structural holes where people are unconnected in a network to enhance their structural autonomy and thus control the information flows between others and get benefits. Betweenness centrality (Freeman, 1979) may be taken as a measure of structural hole (Burt, 1992), such that a node with high betweenness centrality is considered to be the occupant of a structural hole.

The attributes of actors may be influenced by the degree of their connectedness in the social network and the social capital they are able to extract from the network in which they are embedded. According to Monge and Contractor, "the attributes of actors include efficiency in seeking information, effectiveness, productivity, creativity, innovativeness, and flexibility" (2003, p. 156). The mechanism of social capital in the social organizations could be represented as: Al_i = function $[\sum(R1_{ij})]$ (2003, p. 156). $A1_i$ is the value of an attribute for actor i. It is influenced by the sum of actor i's relations with all other actors j.

When specifying this relation as Guanxi, which emphasizes socially situated reciprocation, social capital could be understood as Guanxi capital. The mechanisms of Guanxi capital in social organizations can be represented as: $A1_i$ = function $[\sum(GX_{ij})]$. Here, the value of an attribute A1 for actor i could be influenced by the sum of actor i's Guanxi with all other actors j. Specifically, if a person A does something for another person B and trusts the reciprocation from B in the future, then an expectation from A and an obligation of B are established, and thus valuable Guanxi capital resources are created in the process of social interaction between A and B (Coleman, 1988). Therefore, Guanxi networks could also be studied from the perspective of social exchange, and Guanxi capital could be understood as renqing resources that Chinese present to each other as gifts or favors with the goal of social exchange.

Renqing rules in the study of social exchange mechanism in Guanxi network

Social exchange theory has been used to examine the supply and demand of resources in dyadic relationships (Homans, 1950, 1974; Blau, 1964), and larger social networks in which the dyad is embedded (Emerson, 1962, 1972a, & 1972b). In network analysis, links are created on the basis of an individuals' analysis of the costs and returns in the process of exchanging resources with others in the network (Monge & Contractor, 2003, pp. 209-210). Individuals' potential capabilities for social exchange could prevent them from being excluded from their communication network. In the Guanxi network, renqing is recognized as a valuable resource for social exchange, and the formation of a Guanxi network should follow renqing rules. In Chinese social organizations, renqing refers to substantive and concrete behaviors and materials that could satisfy the internal emotions of human beings. It also indicates a set of social norms that are essential for people to get along with others. On the one hand, individuals exchange renqing resources to maintain their relations with the acquaintances in their Guanxi network. On the other hand, they offer help and "do a renqing" for a person who gets into trouble and is the member of their Guanxi network, with the expectation of future reciprocation (Hwang, 1987). The mechanism of renqing exchange in Guanxi network at the dyadic level can be represented as: GX_{ij} = function $[(RQ1_i - RQ1_j)(RQ2_j - RQ2_i)]$. Here, $RQ1_i$ and $RQ1_j$ are renqing resources available to person i

and needed by person j; $RQ2_j$ and $RQ2_i$ are the renqing resources available to person j and needed by person i. Guanxi is created if renqing exchange takes place between two individuals. Furthermore, renqing also has been treated as social evaluations from other people in the Guanxi network (Hwang, 1987). When actor i contemplates whether or not to do a renqing for actor j, actor i will pay attention to other people related to actor j. If j has close connections with important people who have renqing resources needed by actor i, and actor j's associations with these people are strong enough to persuade one or more of them to do a renqing for actor i, actor i will be much more likely to grant the renqing request from actor j. On the contrary, actor i will be much more likely to justify a refusal to actor j. Therefore, the mechanism of renqing exchange at the triadic level can be represented as: GX_{ij} = function $[(RQ1_i - RQ1_j) (RQ2_j - RQ2_i) GX_{jk1} GX_{ik2}]$. Here, GX_{jk1} is guanxi between actor j and actor k1 who has renqing resources needed by person i, and it can be represented as: GX_{jk1} = function $[(RQ1_j - RQ1_{k1}) (RQ2_{k1} - RQ2_j)]$. $RQ1_j$ and $RQ1_{k1}$ are renqing resources available to actor j and needed by actor k1; $RQ2_{k1}$ and $RQ2_j$ are the renqing resources available to actor k1 and needed by actor j. GX_{ik2} is Guanxi between actor i and actor k2 who has renqing resources needed by actor j, it can be represented as: GX_{ik2} = function $[(RQ1_i - RQ1_{k2}) (RQ2_{k2} - RQ2_i)]$. $RQ1_i$ and $RQ1_{k2}$ are renqing resources available to actor i and needed by actor k2; $RQ2_{k2}$ and $RQ2_i$ are the renqing resources available to actor k2 and needed by actor i.

From this perspective, the mechanism of renqing exchange at the global level can be summarized as: GX_{ij} = function $[(RQ1_i - RQ1_j) (RQ2_j - RQ2_i) \sum GX_{jk1} \sum GX_{ik2}]$. The first $\sum$ indicates the sum of guanxi between actor j and actor k1 who has renqing resources needed by actor i. The second $\sum$ indicates the sum of guanxi between actor i and actor k2 who has renqing resources needed by actor j. These mechanisms of renqing exchange could be used to study the power, trust and ethical behaviors in social organizations. For example, the allocator of renqing resources may be caught in a renqing dilemma (Hwang, 1987). Facing the renqing request from actor j, actor i may benefit actor j by risking violation of the equity rule. However, if actor i insists on the equity rule and refuses to give actor j a special help, then the guanxi between actor i and j is doomed to be destroyed. Also, this could hurt the interpersonal attractiveness and reputation (renyuan／人缘) of actor i.

The mechanisms of renqing exchange at the triadic level and the global level suggest that the formation of a Guanxi network depends not only on the renqing exchanges but also the perceptions of renqing exchanges or guanxi of network members.

Cognitions of Guanxi network in organizations

The concept of cognitive social structures was developed to describe individuals' perceptions of the social networks (Krackhardt, 1987). It estimates a consensual cognitive structure by aggregating individuals' cognitive structure, even if these cognitions are at variance with reality. In the analysis of social networks, a link existed between two individuals if a preponderance of others in this network perceived this tie, no matter whether it was recognized by either of the people in the dyad (Krackhardt, 1987). Therefore, in organizations, cognitive social structures focus on what others think you know, but not on whom you know (Monge & Contractor, 2003, p. 194). In a Guanxi network, individuals' cognition of guanxi structures is crucial for actors to get desirable renqing resources for survival. The recognition of guanxi structures could help individuals estimate the cost and return of potential renqing exchanges in a Guanxi network. Individuals' cognition of others' guanxi with important people who have renqing resources they need could help

them be in a valuable position for the future allocation of others' resources. Also, the perception of guanxi structures could help individuals build renqing strategies to create guanxi with others who stand at important structural positions and have renqing resources they need. From this perspective, the recognition of guanxi structures is the beginning of the formation of new Guanxi networks.

Specifically, in a cognitive guanxi network represented as GX_{ijk}, k is the other actor's perceptions of guanxi from any actor i to any other actor j. Consensus in cognitive guanxi network exists when a preponderance of others, k, agree on the specific guanxi between actors i and j. The mechanisms of this cognitive guanxi network are based on the actors' attributes as well as their guanxi with others in the network. The actors' guanxi with others, measured at multiple levels, also influences their cognitive guanxi structure. At the nodal level, the centrality of actors will influence their perception of the guanxi network. At the dyadic level, an individual k's perception of guanxi between i and j will be influenced by person k's dyadic relations with i and j. At the global level, people who are densely connected with one another are more likely to have similar and accurate perceptions of the guanxi network. Therefore, the mechanisms of cognitive guanxi network can be represented as: GX_{ijk} = function $[A_k, NC_k, GX_{ki}, GX_{kj}, \sum 2GX_{ij} / (N)(N-1)]$. Here, A_k is person k's attribute, NC_k is k's network centrality, GX_{ki} and GX_{kj} are person k's guanxi with i and j, $\sum 2GX_{ij} / (N)(N-1)$ is the guanxi network density.

In the Chinese context, individuals' cognitions of current guanxi networks influence their behaviors and attitudes in social organizations. Next, this paper explores contagious behaviors and attitudes in Guanxi networks.

Influences of Renqing on contagion networks in organizations

Contagion theories are based on the assumption that the exposure of individuals, groups, and organizations to information, attitudes and behaviors of others through communication network (Burt, 1980, 1987) increases the likelihood that they will develop attitudes, beliefs and behaviors that are similar to those of others in their networks (Danowski, 1980; Carley, 1991; Carley & Kaufer, 1993). Previous studies of contagion mechanism in social networks focused on the influences of dyadic attributes, such as frequency, strength and asymmetry of communication, and the influences of structural equivalence on contagion mechanism (Erickson, 1988). For example, Erickson (1988) stated that organizational members who have similar structural patterns of relationships within the network would be more likely to have similar attitudes and behaviors. In a Guanxi network, the study of contagion mechanisms needs to examine the influences of renqing on contagion in networks. As mentioned above, renqing was originally defined as something consisting of various feelings and emotions, such as happiness, love, sadness and hate acquired at birth (Book of Rites). Individuals who know renqing are sympathetic to others' various feelings and emotions. Although empathy is not the essence of renqing in Guanxi networks, it is the prerequisite for renqing exchange. This means people need to know others' preferences before presenting renqing gifts to another person with the goal of social exchange. Also, if empathy itself represents human beings' internal emotion that should be satisfied by the outside behaviors and materials, creating similar attitudes, beliefs and behaviors is an efficient renqing investment or strategy in a Guanxi network. From this perspective, some attributes of collectivism also could be explained.

As Rogers and Kincaid (1981) stated, the explanation of individuals' knowledge, attitudes and behaviors on the basis of information, attitudes and behaviors of others in the social

network to which they are linked may be described as a convergence model of communication. This model in Guanxi network is described as: organizational members' knowledge, attitudes and behaviors is influenced by the knowledge, attitudes and behaviors of others in Guanxi networks to whom they are linked through renqing. Specifically, in a Guanxi network, the focal actor is i and another actor is j. Each actor i has attributes $A1_i$, $A2_i$, and so on. The guanxi from actor i to actor j are GX_{ij}. The value of a focal person's attribute, $A1_i$, is contagiously influenced by the values of the attribute $A1_j$ of the other people in a given Guanxi network. Meanwhile, the extent to which the focal actor is influenced by the other actor's attribute is determined by guanxi between actor i to actor j, GX_{ij}. This form of the contagion mechanism can be represented as: $A1_i$ = function $[\sum(GX_{ij})(A1_j)]$. Here, $\sum$ indicates the sum of guanxi between actor i and actor j, such that the greater the guanxi, the stronger the influence (Barnett & Rosen, 2007). Considering GX_{ij} could be represented by the renqing exchange mechanism, this contagion mechanism also can be represented as: $A1_i$ = function $[\sum\{(RQ1_i - RQ1_j)(RQ2_j - RQ2_i)\}(A1_j)]$.

In China's organizations, this contagion mechanism explains general workplace attitudes, attitudes toward technologies, organizational behavior such as turnover and absenteeism, and the spread of rumors. It is also helpful to examine the impact of guanxi on the role of homophily in the study of social networks in China.

The role of homophily in the study of the Guanxi network

Many scholars have attempted to examine communication networks from the perspective of homophily, which refers to similarity in age, gender, education, prestige, social class, tenure, and occupation (Carley, 1991; Coleman, 1957; Ibarra, 1993, 1995; Laumann, 1966; Marsden, 1988; McPherson & Smith-Lovin, 1987). According to Brass (1995, p.51), " . . . similarity is thought to ease communication, increase predictability of behavior, and foster trust and reciprocity." The study of homophily is generally based on two points: One is the similarity-attraction hypothesis (Byrne, 1971), which claims homophily reduces psychological discomfort and thus eases communication. The other is the theory of self-categorization (Turner, 1987), which focuses on individuals' using categories such as age, race, and gender to classify themselves, and their willingness to associate with others who are perceived as in the same category. The mechanism of homophily in social network analysis c ould be represented as: C_{ij} = function $[(A1_i - A1_j)]$ (Monge & Contractor, 2003, p. 224). Here, C_{ij} is the communication relation between actors, i and j; $A1_i$ and $A1_j$ are attribute A1 for actor i and attribute A1 for actor j respectively. The communication between actor i and actor j depends on the extent of similarity between $A1_i$ and $A1_j$. For example, one may designate attribute A1 as gender. When actor i and actor j are of the same gender, the communication between actor i and actor j would be positively influenced. This mechanism also has been extended and take the homophily of multiple attributes into account (Monge & Contractor, 2003, p. 224), thus the mechanism of homophily in social networks could be extended as: C_{ij} = function $[\Sigma(A1_i - A1_j)]$.

As mentioned above, in Guanxi network, homophily could be created through being sympathetic to others' various sentiments and emotions in the process of renqing exchange. The contagion mechanism in Guanxi networks also explains the importance of creating similar attributes such as attitudes, beliefs and behaviors in Chinese organizations. This coincides with the similarity-attraction hypothesis and the theory of self-categorization. In Chinese organizations, if actor k has guanxi with actor i, certain kinds of homophily including knowledge, attitudes and behaviors should be found between these two actors; if actor k also has guanxi with actor j, cer-

tain kinds of homophily also should exist between them. In such a case, it is possible that homophily across multiple attributes exists between i and j. Therefore, in Chinese organizations, an analysis of an individuals' guanxi network should consider the homophily across multiple attributes. If two actors, i and j, both have guanxi with actor k, the communication between i and j can be positively influenced. This mechanism can be represented as: C_{ij} = function $[(GX_{ik} - GX_{jk})]$. Here, C_{ij} is the communication relation between actors i and j, and GX_{ik} and GX_{jk} are the guanxi between i and k and guanxi between j and k. In this representation, the homophily of individuals' guanxi networks could facilitate communication. The mechanism of contagion and homophily working together creates a unique harmonious communication environment for social exchange to pursue personal goals.

Summary

This paper has explored the influences of the traditional Chinese culture on social relations in China. It has provided an introduction to the traditional Chinese cultural concept of Guanxi, which is the notion that social connections are based on the socially situated reciprocity. This is different from social interaction in Western society that is based on self-interest and equity. Guanxi represents the foundation of social networks in many Eastern countries. As such, the study of social networks in China requires scholars to examine Guanxi networks. It recommends that scholars should add a Guanxi perspective to the examination of various theories that comprise structural (network) theory, including social capital theory, social exchange theory, cognitive and contagion theories, and the role of homophily in the study of Chinese society and social organizations. It is difficult to truly understand the evolution of social networks in China without taking the cultural concept of Guanxi into account. However, in the era of globalization, the concept of Guanxi does not fully reflect the beliefs and assumptions of Chinese. Multiple cultural idioms coexist in modern China, including the Western rationalism and scientism. From the constructive perspective, it is imperative to study how socially embedded actors reproduce and, potentially, innovate upon the concept of Guanxi in accordance with their personal ideals, interests and commitments, and how multiple cultural idioms intermingle based on these activities on the individual level. Therefore, the most promising direction for the analysis of guanxi networks in Chinese society is to develop more powerful models for analyzing the dynamic interplay between social structure, culture and human agent. We hope this paper has taken a useful step in this direction.

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