

Manuscript #: MOR08-005RRRR

**Confucian Capitalism and the  
Paradox of Closure and Structural Holes in East Asian Firms**

Sun-Ki Chai\*  
Department of Sociology  
University of Hawai`i  
Email: sunki@hawaii.edu

Mooweon Rhee  
Department of Management, Shidler School of Business  
University of Hawai`i  
Email: mooweon@hawaii.edu

\* Correspondence should be directed to Sun-Ki Chai, Department of Sociology, University of Hawai`i, 2424 Maile Way 247, Saunders Hall, Honolulu HI 96822. Phone: +1 808 956-7234. Fax: +1 808 956-3707. Email: sunki@hawaii.edu.

# **Confucian Capitalism and the Paradox of Closure and Structural Holes in East Asian Firms**

## **Abstract**

A long-standing debate has taken place in the organizational sociology and social network literatures about the relative advantages of network closure versus structural holes in the generation of social capital. There is recent evidence that these advantages differ across cultures and between the West and East Asia in particular, but existing network models are unable to explain why or address cultural variation in general. This paper seeks to provide a solution by integrating a culture-embedded rational model of action into the social network model of structure, using this not only to reexamine the closure versus structural hole debate, but also to tie it to the literature on Confucian Capitalism and the “East Asian Model” of the firm. We argue that this integrated approach allows us to systematically analyze the relationship between culture and behavior in networks and, more specifically, to explain why closure has been a more powerful source of productivity in East Asia than the West.

Keywords: Confucian capitalism, East Asian firms, network closure, structural holes

Running Title: Paradox of Closure and Structural Holes

# **Confucian Capitalism and the Paradox of Closure and Structural Holes in East Asian Firms**

## **INTRODUCTION**

This article seeks to address a major anomaly in the social network literature. While there is widespread confirmation of the importance of structural holes in generating power and productivity in Western economies, evidence is weak or disconfirming for East Asia. Closure, an earlier concept that is generally ignored in analyses of Western economies, seems to have greater importance for East Asian productivity. However, there is no systematic explanation in the social networks literature for why this is the case. At the same time, in the literature on Confucian capitalism, much of the productivity of East Asian firms is said to be made possible by social norms associated with popularized forms of Confucianism. However, there is no systematic analysis in this literature of the mechanism through which these social norms affect individual-level behavior. The use of a culture-embedded rational choice model allows us to explain how popular Confucian norms affect behavior in networks, which in turn allows us to explain the differing effects of closure and structural holes in East Asia and the West. The purpose of this paper is to propose a model that bridges the Western social network literature and the Eastern Confucian capitalism literature.

Studies show that social networks in various levels of human society serve as an important form of social capital, providing network members with economic returns and social gains (Lin, 2001). Network scholars in the disciplines of organizational sociology and organizational management have long focused on social capital stemming from an actor's

advantageous structural position in networks (e.g., Burt, 1982, 1992; Coleman, 1988, 1990; Podolny, 2005).

Coleman's (1988, 1990) well-known theory of closure was an important component of his attempt to rebuild social theory on rational choice assumptions, although it has attracted more attention in the social network theoretical community than among its original intended rational choice audience. In it, he defines the key characteristic of perfect closure as being the mutual relationship between each and every member of a group, i.e. that every member of the group knows every other member. Closure, he argues, would facilitate mutual monitoring and enforcement, shared norms, and improved information flows, which in turn would allow for higher and more effective levels of cooperation, therefore benefiting each member of the group.

His primary example is that of parents and children (Coleman, 1988, 1990), in which he compares a fully closed network where two children know each other and their two sets of parents also know each other to a contrasting network with the same actors but where the two sets of parents do not know one another. He argues that, in the former network, parents can cooperate in monitoring each others' children and making sure each acts appropriately, while in the latter, this is much more difficult. Thus, the former sets of parents will have more effective control over their children, giving them more incentive to invest in the development of their children's human capital.

Burt's (1992) theory of structural holes provides an innovative and provocative counter-proposition about the benefits of an actor's network location in accessing social capital. Burt extends Granovetter's (1973) notion of the *bridge* in the network and suggests that actors located in networks rich in structural holes, which exist between two unconnected contacts, are blessed with two types of benefits: information benefits and control benefits. Non-redundant contacts

serve two functions. First, they provide actors with unique and diverse information along with timely access to information sources. Second, by brokering the connections, they enable actors to obtain greater bargaining power and control over resources or outcomes.

Burt's structural hole thesis is supported by abundant empirical evidence in the management literature, along with findings of contingency factors that affect the strength of association between structural holes and information/control benefits (see Burt, 2000, for a review), including the number of peers (Burt, 1997), network content (Podolny & Baron, 1997), network updating (Rhee, 2004, 2007), balance between knowledge and power (Reagans & Zuckerman, 2008), and direct versus secondhand brokerage (Burt, 2007). In general, it is fair to say that, within the Western management literature on structural holes versus closure, Burt's (2005) views on the greater advantages of structural holes has prevailed in the debate.

However, despite numerous corroborative studies on the benefits of structural holes in the U.S., we observe little research supporting the structural holes proposition outside of the U.S., particularly in Asian settings. There are only a few studies that have attempted to test for the proposition using an Asia-based dataset. Perhaps the most notable is Xiao and Tsui's (2007) recent study, which finds strong evidence of a *negative* return to individuals who occupy structural holes in "high commitment" Chinese organizations. Bian's (1997) study of job searches in Tianjin, China, also shows that, in contrast to the structural holes thesis, strong ties are more important than weak ones in determining search success.

Coleman's closure hypothesis, in contrast, has not been as widely employed or tested in the management literature. There have been a few recent attempts by management scholars to search for some conditions where closure is more likely to be rewarded than structural holes (Gargiulo & Benassi, 2000; Podolny & Baron, 1997), but these are the rare exceptions. In

contrast to the management literature, closure has been tested widely in the fields of education and child development, where it has been generally confirmed that, under a wide range of settings, children whose networks exhibit closure tend to perform better than those whose do not (for a survey, see Parke et al., 2002).

In this paper, we aim to present a comprehensive model of how network closure and structural holes operate in the context of Confucian capitalism. To achieve this goal, we devote considerable attention to the dynamics of closure in East Asia before turning to structural holes. We offer a series of propositions, followed by a discussion and avenues for future research, concluding with a few final thoughts.

## **SOCIAL NETWORKS AND THE EAST ASIAN MODEL FIRM**

Part of the difficulty of comparing the closure and structural holes hypotheses is that the former hypothesis is primarily about collective outcomes resulting from an overall network configuration, with some ancillary implications for individual outcomes, while the latter is almost entirely about individual outcomes vis-à-vis others in a network based upon differences among the individuals' network positions. Hence, a direct test of one against the other at the individual level, particularly when the endogenous formation of network ties is not examined, does not get at the heart of Coleman's original intention in putting forward the closure hypothesis. Indeed, we will argue that, taken at their appropriate levels of analysis, the two hypotheses can be viewed as complementary rather than competitive. Each hypothesis needs to be explored on its own terms, an imperative that does not seem to have been taken sufficiently seriously by proponents of the structural holes hypothesis in the management literature.

We will examine the operation of closure among East Asian firms and analyze some of the reasons why the structural hole hypothesis, while not failing, operates differently in East Asian firms than in the West. We adopt a framework that combines a social network model of structure with a choice-theoretic model of action (i.e., a rational choice model shorn of the conventional assumption that individuals care only about their personal material utility), similar to what Coleman did in his original analysis of closure. We, furthermore, investigate cultural differences in norms, analyzing how they affect rational behavior within social networks where network ties can be created as a result of individual-level actions.

This analysis, in turn, involves re-specification of the “East Asian Model” of economic behavior (e.g., Hofheinz & Calder, 1982; Berger & Hsiao, 1988; Orru, Biggart, & Hamilton, 1997). This sizable literature explores elements of economic behavior that are distinct to East Asia, and existing theories use those unique elements to explain the unprecedented high speed of economic development that the East Asian region enjoyed throughout the latter part of the 20<sup>th</sup> century. The literature on the East Asian Model generally associates it at the firm level with such practices as lifetime employment and seniority-based compensation, work responsibilities that extend into the social sphere, and relational contracting with suppliers and buyers. In general, it associates the East Asian political economy with networks of relatively long-lived, particularistic ties that take on greater importance for economic outcomes than impersonal contracts (Hamilton, 1991; Hamilton & Biggart, 1992; Redding 1988, 1990). The East Asian Model literature is closely related to the literature on “Confucian capitalism” (Tu, 1984, 1989; Yao, 2002), which centers around the enterprise of reconciling Confucianism with contemporary modernity (Tu, 1996; Bell & Hahm, 2003).

Our purpose in analyzing the East Asian Model firm within a choice theoretic, social network model is to provide it with a general theoretical underpinning that includes explanations of why such practices exist, how they contribute to firm competitiveness, and their relationship to Confucian culture. We hope that our theoretical propositions regarding the closure versus structural holes debate within the context of the East Asian Model firm will encourage more general analysis integrating social network and choice theoretical modeling, which we believe, in turn, will help to provide explanations for variations in economic institutions across countries.

Our specification of the East Asian Model firm will be the creation of an ideal type (Weber, 1963); i.e., it will not be meant to represent the great diversity in firm arrangements that exist in reality in East Asia. For analytical purposes, our model thus distills the most distinct characteristics shared in common among many East Asian firms, particularly those that contrast most starkly with characteristics typically found in Western firms. We would certainly not claim that these practices are uniform across all East Asian countries or that there are no significant differences in the practices of the Chinese family business, Korean *chaebol*, and Japanese *keiretsu*, to take a set of country-specific ideal types. As the East Asian Model concept is designed primarily to examine commonalities within East Asia and contrasts with the West, we admit it glosses over important inter-country differences within the East Asian region. We will note some differences in institutional practice, such as the difference between *de facto* and formal policy-based lifetime employment and the important role of supporting closure-inducing institutions in large Korean and Japanese firms. However, it is beyond the purview of this paper to examine national differences in sufficient detail, and the focus instead will be on the similarities and contrasts with Western institutions.

Despite frequent mention of the importance of networks in East Asian capitalism, little theoretical research has been done to relate the practices associated with East Asian firms to theoretical concepts such as closure and structural holes from social network theory. Our analysis, we believe, helps provide a more generalized form of propositions on closure versus structural holes and helps account for some of the variations in empirical results across cultures in previous studies of the operation of structural holes in firms, connecting these differences with some of the phenomena explored in the Confucian capitalism literature.

### **Cultural Variation in the Efficacy of Network Structure**

Prior research has hinted that three dimensions of actors' networking tendencies can be considered in order to understand cultural variations of the relative advantages of structural holes. The first dimension is cultural variation in the pressures of a structural hole on the holder (i.e., ego) of the structural hole. Podolny and Baron (1997) and Krackhardt (1999) show that a structural hole constrains ego to appease different, competing norms from two disconnected contacts (i.e., alters). It is possible that cultural variation in the level of tolerance of facing competing norms may result in variation in the control effect of structural holes (cf. Galaskiewicz, Bielefeld, & Dowell, 2006). The second dimension of cultural variation concerns the extent to which ego is punished or invites retaliation by alters (and other actors eventually). Cultural variation in treatment toward an ego who takes advantage of a brokerage position may lead to variation in the expected information and control benefits of structural holes. It is more likely in the Far East than in the West that "interactions will be repeated and that alienating network contacts for short-term gains may undermine transactions later on" (Galaskiewicz, 2007: 7). For example, there is substantial anecdotal evidence from East Asian corporations showing

that individuals who seek to develop ties across company borders or even departmental units are looked on with great suspicion and are rarely promoted to high positions. Third, the literature also spotlights the possibility of cultural variation in the extent to which a structural hole is likely to be closed. Actors attempt to take various strategies in order to secure structural holes (Burt, 2005), yet it is obvious that a structural hole does not endure permanently (Burt, 2002; Johnson, 2004). A short-lived structural hole may be less beneficial to actors given the cost of creating the structural hole.

We examine all three dimensions of cultural variation. First, we look at the effects of internalized norms of cooperation on ensuring closure in networks. These norms may either be “natural” as in the case of East Asian family firms (Wong, 1985, 1988) or induced, as in the case of larger firms that have expanded beyond the bounds of the extended family (Rohlen, 1974; Okimoto & Rohlen, 1988; Abegglen, 1988; Koike, 1988, 1996). We then examine the second dimension: the effect of variations across cultures (Galaskiewicz, 2007; Morris, Podolny, & Ariel, 2000) on the probability of punishment towards those who occupy a structural hole within the context of the “lifetime” employment system. Finally, for the third dimension, we look at how relational contracting and the design of supplier chains specifically function to close structural holes or to prevent them from forming in the first place.

Below, we explore the effects of closure and structural holes on the individual and collective welfare of group members within the context of East Asian Model firms. We do this by putting forward a set of stylized propositions about the operation of closure and/or structural holes, examining the deductive logic behind them, then providing empirical examples of the propositions in operation in East Asia. First, we argue that firms with closed networks can sustain higher levels of commitment from group members and thus, *ceteris paribus*, increase

production and provide higher mutual gains relative to open networks. Second, we point out that if network ties are viewed as endogenous, firms can employ a number of institutionalized practices to discourage employees from forming ties external to the firm, thus promoting closure and preventing the formation of structural holes. Third, we argue that it is important to take the assumption not only that network ties are dynamic, but that their creation is the deliberate choice of purposive agents embedded within cultural contexts. Fourth, we argue that employees who occupy structural holes in a firm with an otherwise closed network can receive higher benefits than do their counterparts, precisely because their level of commitment is lower. Finally, we examine the interplay between closure and structural holes in a network, pointing out that some amount of network closure is necessary for structural holes to exist.

### **Closure: The Defining Characteristic of the East Asian Model Firm**

The East Asian Model firm is an ideal type theoretical concept that is one part of the more general East Asian Model discussed earlier. Many versions of the Model have been put forward with different emphases and levels of abstractness, so there is no canonical set of propositions that all authors mention. However, taken as a group, these versions of the Model are generally consistent with the following list of characteristics for distinguishing the model East Asian firm from its Western counterpart: (i) a closed and dense network of relationships among employees (ii) long-term, often effectively permanent, employment for key employees (iii) diffuse patterns of interaction that merge work and non-work relationships, and (iv) long-term, personalistic relationships with trading partners and government agencies (for some examples, see Hofheinz & Calder, 1982: 22-26; Chowdhury & Islam, 1992: 46-52; Hamilton, 1996: 283-297). We offer two propositions on the nature and development of closure in the East Asian Model firm:

*Proposition 1: The high levels of closure that characterize East Asian Model firms will generate higher levels of employee commitment and lead to higher levels of work effort than a more open configuration of network relationships. This commitment will also provide incentives for firms to invest in worker skills, thus improving the quality as well as quantity of work.*

This is a proposition about how structural characteristics particular to East Asian Model firms influence individual behavior within those firms. Rational choice theory predicts that cooperation in all but the smallest groups, even if for mutual interest, often fails to occur due to social dilemmas inherent in collective action (Olson, 1965/1971; Yamagishi, 1995). The concept of a social dilemma defines the primary micro-macro problem in rational choice theory: the fact that actions that are utility-maximizing at the individual level of analysis may fail to maximize aggregate collective utility. When groups exceed a certain size, it is rational for group members to attempt to “free-ride” on the cooperation of others in contributing to joint production rather than contribute their own efforts, since, *ceteris paribus*, their efforts will only have a small effect on their own private benefits. Institutions for monitoring and punishing free-riders can be used to address such problems by enforcing cooperation, but are typically ineffective if individuals can readily exit to other groups (Hechter, 1987; Chai & Hechter, 1998). The lack of an exit option, on the other hand, raises the opportunity costs of failing to cooperate because it means that the only alternative to interaction within the group (either cooperating or accepting punishment from an institutionalized enforcement) is solitary production, which typically provides far fewer benefits than group cooperation. This allows groups to demand and receive higher levels of contribution than they could without closure. This greater investment of personal effort into the production of collective goods leads to overall higher output if production technology is held constant.

Another benefit of closure and the resulting higher level of commitment is the ability of principals within the group to appropriate their investments in the human capital of group members. Human capital will increase the amount of collective goods generated by similar levels of effort and hence, in principle, are a worthwhile investment. However, the benefits to the group for doing so are uncertain if there are opportunities for members who have received such investments to exit (Becker, 1962). High human capital will actually increase the incentives for members to exit because their improved abilities will increase their value to other groups. If the ability to exit is curtailed by network closure, however, then there is greater certainty that the investment will not be lost. This, in turn, will increase the tendency of firms to invest in employee human capital, thus improving productivity. This is a classic case of what Coleman (1988) would call “social capital in the creation of human capital”.

The high level of closure in the East Asian Model firm is embodied in the practice of lifetime employment. The existence of policies guaranteeing lifetime employment for key employees in large firms and the *de facto* lifetime employment for kinfolk in small family firms is a well-known practice in East Asia (Stiglitz, 1996; Wilkinson, 1996). Although it is a popular contention to say that lifetime employment as an institution has declined in East Asia, there is little systematic study to back up this contention. Indeed, empirical studies of the practice in Japan have shown no significant decline, even in the so-called “post-bubble” period (Kato, 2001).

Lifetime employment tends to generate closure because individuals do not circulate between firms over their lifespan and, therefore, develop their network of ties internally rather than externally. Likewise, both formal and informal types of lifetime employment encourage employees to be generalists who will occupy a variety of roles within the firm over the course of

their careers. This leads to wide circulation across various departments and, therefore, plentiful opportunity to develop wide-ranging, numerous ties within the firm.

In Japan, the lifetime employment institution has been seen as a defining characteristic of “Japanese-style” management for at least 50 years (Abegglen, 1958, 1988; Rohlen, 1974: 73-74), although the similarity with other East Asian industrialized countries has been recognized as well (Stiglitz, 1996; Wilkinson, 1996). In the “classic” form of this system (Cole, 1979: 11; Koike, 1980; Abegglen, 1988: 131-133.), recruitment for management-track positions in larger companies draws from new graduates of elite universities who typically have no prior full-time work experience. Once the new graduates are hired, it is expected that they will continue with the company until retirement and will receive salaries that are largely based on their duration of service in the company. Seniority-based salaries, though they may seem to challenge meritocracy, have the virtue of making it difficult for an employee to change companies since rewards for employment are tied to staying for a long period of time with a single company. Furthermore, if the major firms within a particular industrial sector practice lifetime employment, it is difficult for someone who quits to find a new management-track position at a different firm, even at an entry level, since hiring such an individual would violate the principle of hiring new graduates. Hence, the major characteristics of classic lifetime employment each reinforce the other in ensuring network closure among a firm’s key employees.

While less research has specifically focused on lifetime employment in Korea, several studies of human resource management in Korean firms show that, before the economic crisis of 1997, most Korean companies ensured lifetime employment even from the point of recruitment (Kim & Briscoe, 1997; Lee, 1998; Pucik & Lim, 2001). Although the 1997 crisis forced Korean firms to reform their traditional lifetime employment system more towards an Americanized high

job mobility system, many aspects of the lifetime employment system survive in their HRM conventions. For example, the in-house training for new employees that lasts more than a month still remains in most of large companies (Kim & Briscoe, 1997).

In smaller, family-based firms, the institution of lifetime employment is rarely formalized, but the smaller pool of potential workers such firms draw upon would imply that closure is, if anything, stronger. The prototypical example of this is the small Chinese family-owned firm, otherwise known as the Chinese family business (Brocklehurst, 2005; Weidenbaum, 1996; Weidenbaum & Hughes, 1996), which some see as an exemplar of Confucian capitalism in its original form (for a review, see Yao, 2002: 1-20). Closure is stronger because employees' interact with the same group of people within the firm and beyond the workplace, thus reinforcing rather than providing an alternative to their intrafirm network. As we shall see in Proposition 2, firms that are not based on family ties must rely on an array of institutional practices designed in many ways to mimic this overlap by assimilating the employee's social life into their work life.

Chinese *qiyejituan* are a much more recent phenomenon than the Japanese *keiretsu* or Korean *chaebol*, and there is more heterogeneity in their labor practices as well as the remaining large presence of state-owned enterprises. There is evidence that the Chinese government in the 1990s consciously encouraged the formation of corporate groups based upon the Japanese and Korean models (Keister, 2000: 63-65; Lee & Hahn, 1999), and lifetime employment was already in place as a legacy of the "iron rice bowl" practices of the pre-reform era.

The previous examples show why commitment on the part of employers to employees is reciprocal in the East Asian Model firm as long-term closure generates not only higher levels of efforts, but also incentives for firms to invest in employee human capital. Since employees will

not take skills elsewhere, all improvements in worker productivity resulting from investments in training will be retained by the firm, not its competitors. It is quite common for large companies in Asia to pay considerably for the additional education of their employees. Most Korean *chaebol* have their own training institutes, to which the subsidiary companies entrust the training of their new employees (e.g., *Inhwawon* for LG). The same is true for large Japanese manufacturing companies such as Toyota, Honda, Toshiba, and Matsushita (Nonaka & Takeuchi, 1995).

The primary implication of this for the closure versus structural holes debate is to point out that closure of intra-firm networks provides clear advantages in raising individual contributions to group productivity. Given this, an explanation is needed for why the empirical literature on closure versus structural holes in firms seems to have come down so firmly in favor of the latter rather than the former. As we have argued here, one reason is that the literature has paid attention primarily to Western companies rather than East Asian ones and, thus, has never looked carefully at the productivity advantages closure can bring. Beyond this, one of the reasons closure has been given so little attention in empirical studies is that most previous studies have focused on individual-level outcomes exclusively. Whatever the reason for this imbalance, it is clear that multi-level outcomes must be examined.

*Proposition 2: Major institutional practices of East Asian Model firms will encourage internal ties and discourage external ones, thus inducing closure by (a) generating material disincentives to the formation of outside ties and (b) taking advantage of or generating affective identification and shared social norms, making each member's own preferences tied to his/her work in the firm.*

This proposition is about the causal relationship between cultural/institutional firm-level characteristics and individual behavior. The connection between closure and commitment is reinforced by a variety of other institutions, and indeed, all of the institutions that make the East Asian Model unique can be explained at least in part by their effect of promoting closure. Each institution promotes closure in the social networks of its employees through shared social norms that exist prior to employment and/or through a series of institutional practices that envelop the employee within the firm after employment (Lin, 2001).

A focus on individual-level decision making allows us to understand why firms make it a policy to encourage ties among employees that go beyond the workplace to ostensibly social and leisure activities. This has a two-fold benefit for the firm. First, it provides a way of deepening mutual altruism and shared norms among employees in a way that can translate from leisure to work domains. Second, it consumes the time of employees, making it more difficult for them to form ties outside the group (Gargiulo & Benassi, 2000), hence increasing commitment.

Indeed, one characteristic of the East Asian Model firm is the breach of the boundary between work activities and social activities (Manrai & Manrai, 1995; Whitley, 1992). For larger firms that recruit most of their employees from outside the family, this breach does not occur naturally, so it must be generated by institutional practices (Wilkinson, 1996). It is well known, for example, that middle-level managers at large firms within Japanese *keiretsu* or Korean *chaebol* cannot leave work until their superior does so (Wong & Ko 2009: 197; *Economist*, 2008). . At first glance, this seems a wasteful use of time, since the managers must stay even if there is no productive work for them to do. Likewise, it encourages managers to work at less than maximum efficiency since they may have to stay late at work regardless of how fast they get things done. But this type of norm clearly ensures closure.

Besides quasi-social activities that take place during the prolonged workday in the office, there are, of course, many social activities that take place out of regular work hours, yet are effectively mandatory and typically involve copious amounts of alcohol (Cho & Yoon, 2001). Extensions of this include company trips to hot springs resorts and other attractions and company-subsidized recreation clubs and teams. For large companies in Japan and Korea, there are often subsidized company housing estates for families and dormitories for those who are unmarried. Failure to accept these “perks” can have adverse consequences for an individual’s career, yet accepting them makes the employee’s corporate life an all-encompassing experience and, not coincidentally, leaves the least amount of room for the employee to build new network ties other than through the auspices of the company itself.

### **Confucian Capitalism and Its Effect on Closure and Structural Holes**

*Proposition 3: The advantageous effects of closure on the productivity of East Asian Model firms are enhanced by norms particular to East Asian and, more specifically, Confucian cultures. These norms will serve as focal points that coordinate individual behavior, making it rational for individuals to devote high levels of effort to group production.*

The logic of this proposition flows from the fact that, contrary to most formal rational choice models, in many if not most choice situations, there is no single action that is clearly optimal given the preferences and information an individual has. In situations of strategic interaction, i.e., where each individual’s payoff depends on that of the other individual’s, this leads to insufficient information to make a rational choice, which leads to the problem of *multiple equilibria* and, therefore, indeterminate prediction. Repeated interactions of this sort

have shown that, indeed, just about any pattern of behavior can be viewed as rational (Fudenberg & Maskin, 1986).

Given this multiple equilibria problem, social norms can come into play in determining the actions that an individual will take and do so in a way that is not only consistent with, but actually abets rational action (Chai, 1997). Facing multiple equilibria, a person will not take actions that are clearly undesirable, but if there is an action that stands out as being consistent with social norms and is among the set that could plausibly be optimal, then the norm-consistent action will be chosen over other alternatives. A social norm can provide a kind of *focal point* (Schelling, 1960: 57) or *convention* (Lewis, 1969/2002) that places special attention on one among otherwise similar alternatives.

Particularly under conditions where interaction is repeated but cooperation cannot be ensured through enforceable contracts, group productivity can be enhanced by a coordinating norm that instructs one to cooperate with others who have certain characteristics and causes one to expect cooperation in return from such individuals as well. Once such a pattern of cooperation has gotten under way, it can be retained in equilibrium or even made more robust by various commitment mechanisms of the kind discussed for the previous proposition. However, the initial decision to enter into a pattern of cooperation depends in large part on trust, which itself depends on pre-existing social norms.

It can be argued that Confucian norms perform this role in East Asian Model firms. The type of norms most relevant for determining economic behavior may be called “weak Confucian norms” (Chai & Liu, 2008). These norms are derived originally from popularized understandings of Confucian ethics, but employees of the firms do not have to personally subscribe to the ideal justness or rightness of the norms in order to follow them or for the norms

to be effective. Rather, the employees simply need to be aware that these norms are part of a shared background of salient cultural material that is common knowledge.

The specific norms that operate within the Chinese family firm would simply be the adage, familiar to any Chinese person regardless of level of education, that one's primary responsibilities are to one's family members: obedience to one's elder kin, benevolence to one's younger kin, and fraternity with one's kin cohort. The existence of a weak Confucian norm instructing individuals to cooperate with kin and expect cooperation back will identify, under many circumstances, a set of equilibria behaviors that has the effect not only of creating firms whose personnel are comprised by kin, but also of encouraging network closure of that group.

Tsai, Hung, Kuo, and Kuo's (2006) research on the CEOs' tenure in Taiwanese family firms provides a very interesting finding: faced with low performance, family firms are three times more likely to change their CEOs than non-family firms. As the authors argue, this finding may be interpreted as the existence of a high-level power game in the family firms' managerial structure. At the same time, however, considering that family firms tend to have more CEO candidates among their family members, Tsai et al.'s finding can be understood as showing that family firms are likely to choose in-family members as their new managers rather than non-family members. For family firms, there exist enough available CEO candidates to replace current CEOs who have poor performance. Rather than searching for new CEOs from outside of the firms, family firms would confine their new CEO search within the boundaries of their family group. Family firms seem to resist the globally prevailing managerial practice of searching for new, capable CEOs from CEO markets, possibly due to the altruism and shared norms for their family values. This also can be extended to the argumentation for family firms' high reliance on *closed network characteristics within family*.

In an era of global competition, the renowned characteristics of Chinese family firms may be challenged because, by nature, family firms are limited to grow beyond a certain size. However, Chinese family-owned firms seem to have their own ways to perfectly expand their business scope without jeopardizing the uniqueness of family-centered management. Yeung (2000) suggests a concept of “family-ization”, in which non-family members can be socialized into the family and develop exclusively closed relations with the family. In his case study, he describes how HKToys, a family firm located in Hong Kong, successfully expanded its business into Singapore by developing family-like trust with a non-family employee (family-ization). It seems that beyond Yeung’s concept of family-ization lies the well-known Chinese sense of interpersonal relations, *guanxi* (Yang, 1994; Kipnis, 1997; Gold, Guthrie, & Wank, 2002). By facilitating *guanxi* and developing family-like trust, Chinese family firms can internalize non-family members within the extant family boundaries. In that sense, Chinese family firms can make a breakthrough not only by overcoming the limitation of family, but also by securing the advantage of family firms.

A theory of behavior based upon rationality consistent with norms as focal points would predict the success or failure of an attempt by Chinese family firms to move beyond reliance on only family-based bonds according to the following factors: (i) whether the behaviors prescribed under expanded norms constitute an equilibrium, i.e., it is rational to follow them if a firm’s owner(s) and employees do as well; (ii) whether the firm’s owner(s) are able to broadcast this ideology so that it is heard more widely than attempts by other ideological entrepreneurs (e.g., union leaders) to prescribe countervailing kinds of norms; and (iii) whether or not the expanded norms prescribed provide a form of identification for employees that can be viewed as consistent with their past own behavior (Chai, 2001).

Janelli and Yim's (1993) ethnographic work on a large Korean conglomerate describes a context where such an attempt has been made, with partial if not unfettered success. The success is reflected in an essay submitted by an employee on the theme "We are One" (referring to the company): "Parents . . . cultivate their children's abilities and strive to acknowledge their talents. The children too have complete trust and faith in their parents." (Janelli & Yim, 1993: 119).

In Kim's study of another large conglomerate, he states that the chairman's "managerial rules were based entirely on Confucian virtues" (Kim, 1992: 55). This is embodied in part by the widespread involvement of kinsmen in the management of the conglomerate's various operations but even more widely by its management of employees based on an "extended family concept." This concept may be authoritarian but provides job security and social welfare benefits far beyond what would exist in a Western company (Kim, 1992: 201-209).

Clark's (1979) analysis of the Japanese firm traced the rise of familism in Japanese management to the labor shortages and the rise of unions in the late 19<sup>th</sup> century, when Japan was taking its first steps towards industrialization. He contends that the family metaphor was utilized by factory owners to justify keeping out unions and labor regulations and was accepted because it required only a straightforward extension of Confucianism-dominated Tokugawa-period ideology, which had already been adapted politically by Meiji oligarchs to create their version of nationalism. Thus, the family metaphor "arose with apparent naturalness out of the circumstances of the time and was, for that reason, a powerfully persuasive doctrine." (Clark, 1979: 41).

The debate on closure versus structural holes has not attempted to directly examine the effect of specific cultural norms in determining a firm's relative advantages when using closure versus structural holes as management policy. Part of the reason, of course, is because nearly all

the studies have been focused at the individual-level rather than on firm-level outcomes. At the firm level, a policy of encouraging employees to occupy structural holes would, in practical terms, mean the deliberate recruitment of employees with previous work experience in competing companies or other sectors. If practiced by more or less all the firms in a particular environment, this would lead to the kind of circulation of employees between competitors often found in Western industries.

### **Closure, Structural Holes, and the East Asian Model**

We have pointed out that much of the debate about structural holes versus closure seems to miss a fundamental point, that, for the former hypothesis, the dependent variable was individual outcomes vis-à-vis other members of a group, while for the latter hypothesis (at least in Coleman's formulation), the dependent variable is group outcomes. If we restore things to the individual level, what would be the implications for the East Asian Model firm? The following proposition focuses on this question.

*Proposition 4: While closure promotes commitment and work effort by individuals and, thus, higher firm productivity, those individuals within an East Asian Model firm who are able to act for a prolonged period as occupants of structural holes will tend to receive higher individual benefits relative to effort than their fellow employees. However, their ability to occupy structural holes will be dependent on the firm's willingness to exempt them from the sanctions that are typically used to prevent such attempts at brokerage. This willingness will be associated with the need for individuals with special skills, a condition that is becoming increasingly prevalent as East Asian firms enter an era of globalized competition in information-based technology.*

As discussed in the previous section, there are numerous institutionalized practices within East Asian Model firms that are designed to make it difficult for the individual to develop ties outside the closed main group defined by the firm. Also, if the environment of firms is dominated by those that have institutionalized similar practices, then there will be reciprocal difficulty for any outside contact to participate in creating new network ties since the contact's time will be filled by his or her own firm-based activities, and there is no question of accepting outsiders into these activities, even if they are social ones. Hence, endogenous network construction implies there will be fewer individuals occupying structural holes in East Asian Model firms than in Western firms and, under different sets of conditions, complicating efforts at direct individual-level comparison.

However, within some large East Asian Model firms, there are certain individuals, albeit not large in number, who have outside business ties that predate their entry into the company. The existence of such prior outside ties indicate an exemption from normal practice, since recruitment for both family firms and large firms practicing formal lifetime employment policies takes place directly out of secondary or tertiary education, and such firms rarely recruit anyone with substantial prior corporate experience. For those employees who are an exception to the rule, there are reasons to expect that they would receive higher levels of benefits relative to effort than their fellow employees. The economic logic of this is fairly simple: members of an otherwise closed group who have strong preexisting outside ties are more likely to have exit options and can credibly threaten to leave if conditions are not to their liking. Hence, as long as the members in question continue to offer some positive value to the firm, they can leverage such ties to obtain higher individual benefits or get away with lower levels of individual effort than those who do not. Thus, the social capital characteristics that are beneficial to individuals within

a group may be harmful to the group productivity overall. Indeed, the more closed a group, the more powerful the leverage provided to those few members of the group who have exit options.

This above analysis points out a distinct sort of social dilemma that exists within closed groups. Contrary to the usual portrayal, the dilemma is less about whether to contribute to group production in the short term and more about whether to seek out-group ties that can benefit an individual but ultimately hurt the group. The enforcement mechanisms closed groups use to discourage outside ties are analogous to the ones they use to punish free-riders in conventional social dilemmas, such as reduction of in-group cooperation. Like any social dilemma, outside ties will, *ceteris paribus*, create a conflict between individual and collective (firm) interests.

Why, then, would East Asian Model firms allow certain selected employees to enjoy exemption from the usual strictures against outside ties, knowing that such individuals are apt to be inherently less committed to the company? One explanation would be that such employees possess special skills that cannot be found among personnel recruited in a more conventional manner. Notable examples of employees who receive such special treatment are those who possess international cultural experience and language abilities, skills that are increasingly necessary as economic national boundaries gradually break down. Because such skills generally are developed at a relatively young age, they are often limited to individuals who have lived abroad during long periods of their early lives. Such individuals would naturally have a rich set of outside ties even prior to their entry into the firm. Having such skills provides advantages for employees in part because they have the option to work for foreign as well as domestic companies, so such employees must be given special privileges if they are to be kept in the firm.

From around the time of the 1997 economic crisis, Korean firms begin to recruit US MBA students through both official and unofficial channels for the purpose of inducing

knowledge workers prepared for global competition. This may be understood as Korean firms' effort to overcome the limitations of their traditional employment systems, which may lack opportunities to gain competent external resources. Likewise, many Japanese companies have tried to recruit Japanese students with degrees from US universities in order to overcome the shortcomings of Japan's stereotypical work environment (Iwaki, 1988). *Talented employee* is one of the new millennium agendas that Lee Kun-hee, the chairman of Samsung, strongly emphasizes in a global competition era (Lee, 2006). This new scheme of inducing talented employees, however could possibly hamper the overall morale of employees. Samsung's experience points out the difficulty of obtaining the services of *talented employees* without upsetting the system of incentives which it, a quintessential East Asian Model firm, has depended on up to now for much of its success.

These empirical examples illustrate in various ways how the structural holes argument may be confirmed at the individual level while the closure argument is confirmed on the collective level. They also show how the ability of individuals to occupy structural holes is itself endogenous to their "cosmopolitan" ability to move across different corporate cultures, but that such ability, while offering certain advantages, may also be dangerous to firms that rely on closure to bolster production.

### **The Future of Structural Holes in the East Asian Model**

The growing numbers of "cosmopolitans" in East Asian firms, who gain advantages from occupying structural holes but escape sanctions because they provide specialized skills or knowledge that the firms need, raises an obvious question: Will there be a convergence over time that will eventually cause the East Asian Model firm to lose its distinctiveness and become

more and more like those in the West? While it is always difficult to make general long-term predictions, logical implications of the evolutionary path of East Asian firms suggests that, while change is inevitable, the end result will be a new form that is different from either the current Eastern or Western Models.

*Proposition 5: Rather than suppressing or encouraging individual occupation of structural holes, the evolution of the East Asian Model in the era of information-based technology will ensure that such holes are filled, not just between buyers and suppliers, but also between competitors within a sector. This will generate interfirm networks of ties that encompass entire sectors.*

The logic of path dependence (David, 1985) implies that, even after the downfall of closure as an optimal method for ensuring competitiveness, the norms and institutions that nurtured the East Asian Model firm – weak Confucian norms, lifetime employment, the merging of vocational and social life – will be difficult to eradicate. It will be equally difficult for the East Asian Model firm to readily adopt Western managerial techniques, whose effectiveness depends upon a set of supporting norms and institutions that take a long period of time to build (North & Thomas, 1973; North, 1981). Instead, the more likely outcome will be an adaptation of the existing institution to new circumstances, rather than their wholesale replacement.

Economic growth engendered by closure has many advantages, but development of productivity-increasing high technology is not one of them. Indeed, Krugman (1994) argued that there would be a natural plateau to growth when the additional amounts of labor that could be applied to production reached their natural limits. The relative inability of Asian firms to innovate in basic research is often attributed to their impermeability to outside information due to their closed structure. Overly dense networks prevent the generation of the kind of information

diversity necessary to trigger innovation. The circulation of personnel and resulting circulation of knowledge that characterizes fast-moving high technology firms in the West is absent among Asian-style firms and is seen as a root cause of the latter's continued difficulty in coming up with basic research innovations, even as investment in education and research increases.

Indeed, efforts to move up the technological "food chain" while maintaining the closed structure of the East Asian Model firm have proven frustrating, and the balance between closure and the possibility of structural change is an experience firms are facing with widely varying degrees of success. This is not to say that the only reasons why the East Asian Model exhibits limitations as an institution are the particular needs of high technology. Indeed, there are a number of other factors in play. For example, there is abundant anecdotal evidence showing the changing values of young professionals in East Asia, many who dislike the idea of identifying themselves with one organization and would rather seek a more individualistic lifestyle. Another factor would be the threat to the lifetime employment system by a more heterogeneous ecology of firms. Increasing numbers of foreign-invested firms and local startups are more flexible in accepting mid-career hiring and do not associate any stigma with leaving a lifetime employment position at another firm, thus offering more potential exit options than before.

One way to retain the core of lifetime employment, and some of the commitment that it engenders, while allowing for the free flow of information necessary to produce innovative knowledge workers is to extend the network characteristics of relational contracting to one's competitors as well as one's suppliers and buyers. This would mean having a set of institutions through which personnel from competing companies meet on a regular basis under the auspices of multi-company industry organizations and use this to pool technological ideas. These meetings would not be limited to a small set of "talented" employees but would become a regular

part of the duties of key employee generalists employed under lifetime employment. In effect, such a system would merge intrafirm and interfirm networks through a broker that is a collective organization rather than one or a few individuals occupying structural holes. Each employee would then have a primary identity as a lifetime employee of a particular firm as well as several secondary identities based upon the other firms with whom the employee is expected to interface and share information. There might seem to be a collective action problem in getting firms to agree to share information in this matter, but there are potential mutual benefits to doing so, and again, weak Confucian norms can play their role in bringing about semi-cooperative rather than competitive equilibria among firms.

The more difficult problem is that such behavior may threaten to violate international transaction agreements or, at the very least, anger Western transaction partners enough to invite retaliation. For example, the information-sharing strategy adopted by Japanese and Korean semiconductor manufacturers in the 1990s when faced with the problem of reducing their dependence on technology tie-ups with Western firms was an incipient version of the kind of adaptation that we are discussing. The hostile reaction of Western governments hints at the problematic effects on international trade. However, world trade rules generally tend to be set by those with the greatest economic power, and if East Asian countries manage to resume their patterns of growth, it is likely that the world trade system will shift slowly to accommodate this type of practice. Secondly, the accusations of collusion by international competitors can be resisted through a “divide-and-conquer” approach that invites select foreign firms to assimilate the external part of their relations into the East Asian Model and, hence, become part of the expanded network.

And while the kinds of institutions envisioned will require transformation of the East Asian Model, it is important to remember that the East Asian Model itself is not a simple reflection of traditional Confucianism, but rather an adaptation enabled by certain templates provided by common-knowledge Confucian norms. In a similar fashion, the East Asian Model can form a template for future changes in the institutions of the East Asian economies.

## **DISCUSSION AND FUTURE RESEARCH**

We have shown how the efficacies of closure and structural holes can differ at the collective and individual levels and are also contingent on supporting institutions, induced preferences and norms, which are elements of national culture, specifically Confucian norms. Compared to Western society, the cultures of East Asian societies provide individuals with more gains when they are loyal to in-group norms of inter-actor contributions yet can subject them to sanction when they attempt to tie with out-group members creating structural holes. This might explain the uneven amount of empirical research on structural holes between US and East Asia.

More generally, our model also hints at a resolution to the long-pending contention between Coleman's (1990) notion of closure and Burt's hypothesis about structural holes (1992). Indeed, Burt (2005) himself, as well as other network scholars (e.g., Gargiulo & Benassi, 2000; Podolny & Baron, 1997), has addressed the tension between the two seemingly opposite views, and their solutions are presented with a discussion of the trade-off between those two views, where the relative importance of each is shown to be contingent upon the content or goals of networks. However, our model provides an approach to the conflict between closure and structural holes that examines not only the cultural values governing the choices of actors on a network, but also explicitly distinguishes effects at the group and individual level. According to

our model, groups in general benefit from closure (Propositions 1 and 2), but those groups with norms that promote within-group cooperation will benefit the most (Proposition 3). On the other hand, members of such groups whose own networks are not closed will tend to do better than other members (Proposition 4). This, in turn, links to a possible reason why Coleman's emphasis on the benefit of closure can be juxtaposed with Burt's support of structural holes under the same institutional context. The East Asian Model of the firm represents a unique illustration of such juxtaposition (Proposition 5).

While our model focuses on a static illustration of action-reaction in networks, future research could incorporate the evolution of interpersonal relationships. For example, given that networking with others is repeated, it is possible to postulate that each network actor learns locally from his or her networking experiences, thereby adjusting subsequent networking behavior, and the actor's local learning depends on his or her judgment about the 'success' or 'failure' of experiences with particular local ties. Networking also involves mutual learning: not only does the actor initiating a tie learn from the experience, but so does the counterpart receiving or rejecting the initiation (Lave & March, 1975). Thus, the primary engine of this learning-based development of interpersonal relationship is what March (1999: 141) calls the "basic mutual learning multiplier".

Our model would also benefit by incorporating the extent to which variations in the mechanism and efficacy of closure and structural holes are explained by regional culture, which is the Confucian culture in our case. Gerhart (2009) suggests that, although regional or national culture is a major component that affects various processes and outcomes in organizations, it is also important to estimate the portions of those effects that can be explained by different levels of culture. By focusing on Confucian culture, which encompasses a broad set of East Asian

countries, our model might pay less attention to between-country variance or between-organization variation. For example, national culture differences among China, Korea, and Japan can create a room for differentiation in the motivation and formation of closure and structural holes even though they are all considered to be embedded in the Confucian culture. As such, there may be higher levels of differentiations in countries allowing greater room for managerial and strategic discretion, where individual organizational culture may lead to substantial within-country variations. As a next step, therefore, our model needs to assess the relative constraints that different levels of culture place on network behavior and performance.

A number of different concepts and principles of our model lend themselves to more formal analysis. Among these is the notion of redundant or multiplex ties, i.e., ties with the same group of individuals that span across multiple environments, such as work and leisure. Formalizing the concepts of redundant or multiplex ties could help us to understand the relationship between them and closure as well as their effect on cooperative behavior. Likewise, this paper has taken as implicit the notion of endogenous creation of network ties and, indeed, argues that economic institutions may exist in part to encourage or discourage the creation of particular kinds of ties. An appropriate formal framework for investigating the causes of network tie creation would help us to better understand the way in which such institutions work.

Another area for further investigation is the relationship between individual and group level analysis. One facet of this is the relationship between the East Asian Model firm and well-known cultural dimensions that operate at both levels, such as individualism and collectivism, the Hofstede measures (Hofstede, 1991), and grid and group (Douglas, 1970, 1982). While on the surface, it may seem that the East Asian Model firm embodies collectivism, the reality is more complex since the institutions of the Model do not exclude the assumption that members of

the firm act to fulfill individual goals as well as collective goals. Likewise, it would be interesting to examine the effect of closure and structural holes as properties of relationships between groups rather than between individuals.

Another area for further analysis is the role of the State. The East Asian Model firm did not arise in a political vacuum but, in part, as the result of deliberate policies by the governing regimes of the region. This role of the “developmental state” (Woo-Cumings, 1999) in promoting the distinctive institutional structures we have investigated here needs to be examined in greater detail. For example, direct state involvement in the governance of Chinese firms has changed the landscape of economic performance at the firm level (Nee, Opper, & Wong, 2007), which in turn requires a distinctive type of network configuration at the individual or group level.

Overall, the practical implications of our model for management extend (or, in some cases, supplant) the fruitful empirical research that provides managers with information on the advantages of structural holes and the contingencies of the advantages on some demographic or contextual variables. Our discussion suggests that managers must consider cultural aspects when they attempt to exploit the advantage of structural holes in their networks. Given the globalization of modern business, it is particularly important to recognize that a network abundant in structural holes can be a liability, not an asset, in some countries. Likewise, even when firms are faced with the need to accommodate somewhat open networks, structural holes are not the only way to do so – larger networks that encompass existing networks can allow for openness between firms while retaining closure at a higher level.

## **CONCLUSION**

The take-away message of our examination for social network theorists is the need to consider the cultural contexts which exist alongside social network structures as well as their effect on the individual actions that determine collective outcomes. The message for scholars of comparative political economy is that the distinctive practices of East Asian firms are indeed tied to Confucianism, but the effects of Confucian norms on both actions and outcomes is contingent on changing conditions of the world economy.

More generally, this study is in the same spirit as the emerging scholarly efforts to contextualize theories (e.g., Tsui, 2006; Whetten, 2009) or generate Asia-born theories (Rhee, 2010). Given that most network studies conducted in Asian countries overly rely on Western theories of social and organizational networks (e.g., Burt, 1992; Coleman, 1990), our study helps make borrowing network theories, especially the theoretical debates on closure versus structural holes, more context sensitive. Further, our model can advance or unite with a possible approach to social networks from the perspective of Asia's own scholarly traditions such as the Confucian philosophy of human relations.

## REFERENCES

- Abegglen, J.C. 1958. *The Japanese factory: Aspects of its social organization*. Glencoe, IL: Free Press.
- Abegglen, J.C. 1988. *Kaisha: The Japanese corporation*. New York: Basic Books.
- Becker, G.S. 1962. Investment in human capital: A theoretical analysis. *Journal of Political Economy*, 70(5): 9-49.
- Bell, D.A., & Hahm, C. 2003. *Confucianism for the modern world*. London: Cambridge University Press.
- Berger, P.L., & Hsiao, H.-H.M. (Eds.) 1988. *In search of an East Asian development model*. New Brunswick, NJ: Transaction Publishers.
- Bian, Y. 1997. Bringing strong ties back in: Indirect ties, network bridges, and job searches in China. *American Sociological Review*, 62(3): 266-285.
- Brocklehurst, M. 2005. Chinese family business. In D.F. Channon (Ed.), *Blackwell encyclopedic dictionary of strategic management*: 1-36. London: Blackwell Publisher.
- Burt, R.S. 1982. *Toward a structural theory of action: Network models of social structure, perception, and action*. New York: Academic Press.
- Burt, R.S. 1992. *Structural holes: The social structure of competition*. Cambridge, MA: Harvard University Press.
- Burt, R.S. 1997. The contingent value of social capital. *Administrative Science Quarterly*, 42(2): 339-365.
- Burt, R.S. 2000. The network structure of social capital. In B. M Staw & R. I. Sutton (Eds.), *Research in organizational behavior*, vol 22: 345-423. New York: Elsevier.
- Burt, R.S. 2002. Bridge decay. *Social Networks*, 24(4): 333-363.

- Burt, R.S. 2005. *Brokerage and closure: An introduction to social capital*. New York: Oxford University Press.
- Burt, R.S. 2007. Secondhand brokerage: Evidence on the importance of local structure for managers, bankers, and analysts. *Academy of Management Journal*, 50(1): 119-148.
- Chai, S.-K. 1997. Rational choice and culture: Clashing perspectives or complementary modes of analysis? In R. Ellis & M. Thompson (Eds.), *Culture matters*: 45-56. Boulder, CO: Westview Press.
- Chai, S.-K. 2001. *Choosing an identity: A general model of preference and belief formation*. Ann Arbor, MI: University of Michigan Press.
- Chai, S.-K., & Hechter, M. 1998. A theory of the state and social order. *Homo Oeconomicus*, 15(1): 1-26.
- Chai, S.-K., & Liu, M. 2008. *Weak Confucian norms and the generation of economic cooperation in Chinese family firms*. Working paper, University of Hawaii at Manoa.
- Cho, Y.-H., & Yoon, J. 2001. The origin and function of dynamic collectivism: An analysis of Korean corporate culture. *Asia Pacific Business Review*, 7(4): 70-88.
- Chowdhury, A. & Islam, I. 1992. *The newly industrializing economies of East Asia*. New York: Routledge.
- Clark, G. 1979. *Japanese company*. New Haven, NJ: Yale University Press.
- Cole, R. E. 1979. *Work, mobility, and participation: A comparative study of American and Japanese industry*. Berkeley: University of California Press.
- Coleman, J.S. 1988. Social capital in the creation of human capital. *American Journal of Sociology*, 94(S1): S95-S120.
- Coleman, J.S. 1990. *Foundations of social theory*. Cambridge, MA: Harvard University Press.

- David, P.A. 1985. Clio and the economics of QWERTY. *American Economic Review*, 75(2): 332-337.
- Douglas, M. 1970. *Natural symbols: Explorations in cosmology*. New York: Pantheon.
- Douglas, M. 1982. *In the active voice*. London: Routledge and Keegan Paul.
- Economist*. 2008. Sayonara, salaryman - Employment in Japan. 386(8561): 56-58.
- Fudenberg, D., & Maskin, E. 1986. The folk theorem in repeated games with discounting or with incomplete information. *Econometrica*, 54(4): 533-554.
- Galaskiewicz, J. 2007. Has a network theory of organizational behaviour lived up to its promises? *Management and Organization Review*, 3(1): 1-18.
- Galaskiewicz, J., Bielefeld, W., & Dowell, M. 2006. Networks and organizational growth: A study of community based nonprofit. *Administrative Science Quarterly*, 51(3): 337-380.
- Gargiulo, M., & Benassi, M. 2000. Trapped in your own net? Network cohesion, structural holes, and the adaptation of social capital. *Organization Science*, 11(2): 183-196.
- Gerhart, B. 2009. How much does national culture constrain organizational culture? *Management and Organization Review*, 5(2): 241-259.
- Gold, T., Guthrie, D., & Wank, D. (Eds.) 2002. *Social connections in China: Institutions, culture and the changing nature of guanxi*. Cambridge: Cambridge University Press.
- Granovetter, M.S. 1973. The strength of weak ties. *American Journal of Sociology*, 78(6): 1360-1380.
- Hamilton, G.G. (Ed.) 1991. *Business networks and economic development in East and Southeast Asia*. Hong Kong: Centre for East Asian Studies, University of Hong Kong.
- Hamilton, G. G. 1996. The theoretical significance of Asian business networks. In G. G. Hamilton (Ed.), *Asian business networks*: 283-297. New York: Walter de Gruyter.

- Hamilton, G.G., & Biggart, N.W. 1992. Market, culture and authority: A comparative analysis of management and organization in the Far East. In R. Swedberg & M. Granovetter (Eds.), *The sociology of economic life*: 181-224. Boulder, CO: Westview Press.
- Hechter, M. 1987. *Principles of group solidarity*. Berkeley, CA: University of California Press.
- Hofheinz, R., & Calder, K.E. 1982. *The Eastasia edge*. New York: Basic Books.
- Hofstede, G. 1991. *Culture and organizations*. Beverly Hills, CA: Sage.
- Iwaki, A. 1988. Firms scour U.S. colleges for Japanese graduates. *Japan Economic Journal*, 26(March 19): 6.
- Janelli, R., & Yim, D. 1993. *Making capitalism work: The social and cultural construction of a South Korean conglomerate*. Stanford, CA: Stanford University Press.
- Johnson, J.D. 2004. The emergence, maintenance, and dissolution of structural hole brokerage within consortia. *Communication Theory*, 14(3): 212-236.
- Kato, T. 2001. The end of lifetime employment in Japan? Evidence from national surveys and field research. *Journal of the Japanese and International Economies*, 15(4): 489-514.
- Keister, L.A. 2000. *Chinese business groups: The structure and impact of interfirm relations during economic development*. New York: Oxford University Press.
- Kipnis, A.B. 1997. *Producing guanxi: Sentiment, self, and subculture in a North China village*. Durham, NC: Duke University Press.
- Kim, C.S. 1992. *The culture of Korean industry: An ethnography of Poongsan corporation*. Tucson, AZ: University of Arizona Press.
- Kim, S., & Briscoe, D.R. 1997. Globalization and a new human resource policy in Korea: Transformation to a performance- based HRM. *Employee Relations*, 19(4): 298-308.

- Koike, K. 1980. Nihonteki koyo kanko (Japanese employment practices). In *Keizaigaku daijiten (Encyclopedia of economics)*, vol II: 100-108. Tokyo: Toyokeizai Shimposha..
- Koike, K. 1988. *Understanding industrial relations in Japan* London: St. Martin.
- Koike, K. 1996. Learning and incentive systems in Japanese industry In M. Aoki & R. Dore (Eds.), *The Japanese firm: The sources of competitive strength:* 41-65. Oxford: Oxford University Press.
- Krackhardt, D. 1999. The ties that torture: Simmelian tie analysis in organizations. *Research in the Sociology of Organizations*, 16: 183-210.
- Krugman, P. 1994. The myth of Asia's miracle. *Foreign Affairs*, 73(6): 62-84.
- Lave, C.A., & March, J.G. 1975. *An introduction to models in the social sciences*. New York: Harper and Row.
- Lee, D. 2006. *Samsung Electronics: The global Inc.* Seoul: YSM.
- Lee, H.-C. 1998. Transformation of employment practices in Korean businesses. *International Studies of Management & Organization*, 28(4): 26-39.
- Lee, K., & Hahn, D. 1999. *Market competition, plan constraints, and asset diversion in the enterprise groups in China*. Working paper, Seoul National University, Korea.
- Lewis, D. 1969/2002. *Convention: A philosophical study*. New York: Wiley-Blackwell.
- Lin, N. 2001. *Social capital: A theory of social structure and action*. New York: Cambridge University Press.
- Manrai, L.A., & Manrai, A.K. 1995. Effects of cultural-contexts, gender, and acculturation on perceptions of work versus social/leisure time usage. *Journal of Business Research*, 32(2): 115-128.

- March, J.G. 1999. A learning perspective on the network dynamics of institutional integration. In E. Egeberg & P. Læg Reid (Eds.), *Organizing political institutions*: 129-155. Oslo: Scandinavian University Press.
- Morris, M. W., Podolny, J. M., & Ariel, S. 2000. Missing relations: Incorporating relational constructs into models of culture. In P. C. Earley & H. Singh (Eds.), *Innovations in international and cross cultural management*: 52-90. Thousand Oaks, CA: Sage.
- Nee, V., Opper, S., & Wong, S. 2007. Developmental state and corporate governance in China. *Management and Organization Review*, 3(1): 19-53.
- Nonaka, I., & Takeuchi, H. 1995. *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. New York: Oxford University Press.
- North, D.C. 1981. *Structure and change in economic history*. New York: Norton.
- North, D.C., & Thomas, R.P. 1973. *The rise of the Western world: A new economic history*. Cambridge: Cambridge University Press.
- Okimoto, D.T., & Rohlen, T.P. 1988. *Inside the Japanese system: Readings on contemporary society and political economy*. Palo Alto, CA: Stanford University Press.
- Olson, M. 1965/1971. *The logic of collective action*. Cambridge, MA: Harvard University Press.
- Orru, M., Biggart, N.W., & Hamilton, G.G. 1997. *The economic organization of East Asian capitalism*. Thousand Oaks, CA: Sage.
- Parke, R.D., Simpkins, S.D., McDowell, D.J., Kim, M., Killian, C., Dennis, J., Flyr, M.L., Wild, M., & Rah, Y. 2002. Relative contributions of families and peers to children's social development. In P.K. Smith & C.H. Hart (Eds.), *Blackwell handbook of childhood social development*: 156-177. New York: Blackwell Publishers.

- Podolny, J.M. 2005. *Status signals: A sociological study of market competition*. Princeton, NJ: Princeton University Press.
- Podolny, J.M., & Baron, J.N. 1997. Relationships and resources: Social networks and mobility in the workplace. *American Sociological Review*, 62(5): 673-693.
- Pucik, V., & Lim, J-C. 2001. Transforming human resource management in a Korean Chaebol: A case study of Samsung. *Asia Pacific Business Review*, 7(4): 137-160.
- Reagans, R. E., & Zuckerman, E. W. 2008. Why knowledge does not equal power: The network redundancy trade-off. *Industrial and Corporate Change*, 17(5): 903-944.
- Redding, S.G. 1988. The role of the entrepreneur in the new Asian capitalism. In P.L. Berger & H.-H.M. Hsiao (Eds.), *In search of an East Asian development model*: 99-114. New Brunswick, NJ: Transaction.
- Redding, S.G. 1990. *The spirit of Chinese capitalism*. Berlin: Walter de Gruyter.
- Rhee, M. 2004. Network updating and exploratory learning environment. *Journal of Management Studies*, 41(6): 933-949.
- Rhee, M. 2007. The time relevance of social capital. *Rationality and Society*, 19(3): 367-389.
- Rhee, M. 2010. The pursuit of shared wisdom in class: When Chinese thinkers meet James March. *Academy of Management Learning & Education*, 9(2): forthcoming.
- Rohlen, T.P. 1974. *For harmony and strength: Japanese white-collar organization in anthropological perspective*. Berkeley, CA: University of California Press.
- Schelling, T. 1960. *The strategy of conflict*. Cambridge, MA: Harvard University Press.
- Stiglitz, J. F. 1996. Some lessons from the East Asian miracle. *World Bank Research Observer*, 11(2): 151-177.

- Tsai, W.-H., Hung, J.-H., Kuo, Y.-C., & Kuo, L. 2006. CEO tenure in Taiwanese family and nonfamily firms: An agency theory perspective. *Family Business Review*, 19(1): 11-28.
- Tsui, A. S. 2006. From the editor: Contextualization in Chinese management research. *Management and Organization Review*, 2(1): 1-13.
- Tu, W.-M. 1984. *Confucian ethics today: The Singapore challenge*. Singapore: Federal Publications.
- Tu, W.-M. 1989. The rise of industrial East Asia: The role of Confucian values. *Copenhagen Papers on East and Southeast Asian Studies*, 36(1): 81-98.
- Tu, W.-M. (Ed.) 1996. *Confucian traditions in East Asian modernity: Moral education and economic culture in Japan and the four mini-dragons*. Cambridge, MA: Harvard University Press.
- Weidenbaum, M. 1996. The Chinese family business enterprise. *California Management Review*, 38(4): 141-156.
- Weidenbaum, M., & Hughes, S. 1996. *The bamboo network*. New York: Free Press.
- Weber, M. 1963. *From Max Weber*. New York: Free Press.
- Wilkinson, B. 1996. Culture, institutions and business in East Asia. *Organization Studies*, 17(3): 421-447.
- Whitley, R. 1992. *Business systems in East Asia: Firms, markets and societies*. Newbury Park: Sage Publications.
- Whetten, D. A. 2009. An examination of the interface between context and theory applied to the study of Chinese organizations. *Management and Organization Review*, 5(1): 29-55.
- Wong, S-L. 1985. The Chinese family firm: A model. *British Journal of Sociology*, 36(1): 58-72.

- Wong, S-L. 1988. The applicability of Asian family values to other sociological settings. In P. Berger & H-H M. Hsiao (Eds.), *An East Asian development model?*, 134-154. New Brunswick, NJ: Transaction Publishers.
- Wong, S. S-K, & Ko, A 2009. Exploratory study of understanding hotel employees' perception on work-life balance issues. *International Journal of Hospitality Management*, 28(2) 195-203.
- Woo-Cumings, M. (Ed.) 1999. *The developmental state*. Ithaca, NY: Cornell University Press.
- Xiao, Z., & Tsui, A.S. 2007. When brokers may not work: The cultural contingency of social capital in Chinese high-tech firms. *Administrative Science Quarterly*, 52(1): 1-31.
- Yamagishi, T. 1995. Social dilemmas. In K.S. Cook, G.A. Fine, & J.S. House (Eds.), *Sociological perspectives on social psychology*: 311-354. Needham Heights, NY: Allyn and Bacon.
- Yang, M. M.-H. 1994. *Gifts, favors, and banquets: The art of social relationships in China*. New York: Cornell University Press.
- Yao, S. 2002. *Confucian capitalism: Discourse, practice, and the myth of Chinese enterprise*. New York: Routledge.
- Yeung, H.W.-C. 2000. Limits to the growth of family-owned business? The case of Chinese transnational corporations from Hong Kong. *Family Business Review*, 14(1): 55-70.

## Biographies

Sun-Ki Chai ([sunki@hawaii.edu](mailto:sunki@hawaii.edu)), B.S. Mathematical Sciences, M.S. Computer Science, Ph.D. Political Science -- all Stanford University, is Associate Professor, Department of Sociology, University of Hawai`i. His theoretical interests involve predictive models of culture and action, and substantive areas include positive constructionist study of ethnicity as well as of economic institutions in Asian development.

Mooweon Rhee ([mooweon@hawaii.edu](mailto:mooweon@hawaii.edu)) is Shidler College Distinguished Associate Professor, Associate Professor of Management, and Cooperating Graduate Faculty of Sociology at the University of Hawai`i. He received his Ph.D. from the Stanford Graduate School of Business. His recent research interests have focused on organizational learning, corporate reputation, social networks, and Asia-based theories of organizations.

Manuscript received: January 24, 2008  
Final version accepted: September 29, 2009  
Accepted by: Yanjie Bian