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BOUNDARY SPANNING AND LEADERSHIP PERCEPTIONS IN CREATIVE ORGANIZATIONS: EVIDENCE FROM FOUR ORCHESTRAS

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BOUNDARY SPANNING AND LEADERSHIP PERCEPTIONS IN CREATIVE ORGANIZATIONS: EVIDENCE FROM FOUR ORCHESTRAS

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Business and Economics
at the University of Kentucky

By

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Lexington, Kentucky

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Lexington, Kentucky

2018

ABSTRACT OF DISSERTATION

BOUNDARY SPANNING AND LEADERSHIP PERCEPTIONS IN CREATIVE ORGANIZATIONS: EVIDENCE FROM FOUR ORCHESTRAS

My research examines the importance of a particular form of cross-group brokerage in social networks wherein a person represents a bridge between his or her group and people belonging to a different group. Prior research on network brokerage and leadership emergence has failed to distinguish between brokerage in general and the kind of boundary-spanning between groups that is the focus of my research. Moreover, what we currently know about social network brokerage and leadership emergence comes either from highly abstracted laboratory-based work, or it comes research in relatively traditional work organizations with clear formal structures. It is unclear whether prior research from traditional organizational settings can be applied to non-traditional organizations in the so-called "creative industries," which are the focus of my research. The core hypotheses my research examines are: (1) Do individuals whose friendship networks help them bridge between groups emerge as leaders in the eyes of others? And (2) Are people who are socially perceptive and socially skilled better at leveraging such boundary-spanning positions to win nominations of leadership from others? Data from the study come from interview and survey data from four different musical orchestras based in Korea.

KEYWORDS: Social Network, Leadership Perceptions, Brokerage, Gatekeeper

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7-19-18
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BOUNDARY SPANNING AND LEADERSHIP PERCEPTIONS IN CREATIVE ORGANIZATIONS: EVIDENCE FROM FOUR ORCHESTRAS

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For Eunsook

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“Segui il tuo corso et lascia dir les genti (Follow your road and let the people say)” by Dante Alighieri, The Divine Comedy

My journey has just begun by completing this dissertation. Like Dante expressed, by focusing on learning from my beloved coworkers and teachers, I tried to do my best for the future during this short journey no matter what others said. Sometimes this journey was so painful to continue but I believed it would be a priceless experience in my life. Especially, when I am looking back last five years, it has been a period of intense learning for me not only in the academic field but also in my personal life.

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CHAPTER 1: INTRODUCTION

The new economy recognizes creativity as a core factor for success and creative industries are increasingly important contributors to the global economy (DCMS, 2008). Two significant changes are seen to be at the heart of this transformation. First, there is more creative work in general that requires different types of management and leadership. Second, specific creative industries are expanding their scale and influence (Davis & Scase, 2000). Responding to these changes, scholars propose that creativity requires skillful leadership (i.e., creative leadership) and thus leadership in creative organizations deserves deeper investigation (Mainemelis, Kark & Epitropaki, 2015). Creative organizations, moreover, are valuable sites to examine leadership emergence because creative efforts are generally complex, novel, and ill-defined tasks (Ward, Smith, & Finke, 1999).

This research explores leadership emergence in creative organizations. Recently, leadership scholars have advanced a view of leadership as a relational process (Carter et al., 2015). In order to study leadership as a relational process, scholars have used a social network approach because it is "highly suitable for studying leadership as relational, and involving both formal and/or informal influence." (Carter, DeChurch, Braun, & Contractor, 2015: p.599). A network approach to leadership has a couple of advantages over traditional research approaches. First, a network representation captures the "natural" dynamics of the group, allowing the possibility for there to be multiple leaders (Gronn, 2002; Pearce, Conger, & Locke, 2007). Second, a network representation of leadership treats leadership as a social process involving leaders and followers (Pescosolido, 2002).

To date, research on the social network ties of members and leadership emergence consistently shows that individuals' occupation of certain positions in social networks relates to others' perceptions of the person's leadership. Experimental studies of small groups -conducted primarily in the 1940s and 1950s at MIT - showed that occupying a central position in a group's communication network positively predicted nominations in leadership networks (i.e., leadership emergence) (Bavelas 1950; Leavitt 1951). Field-based studies have also found that central positions in informal social networks are related to constructs such as individual influence (Brass & Burkhardt, 1992) and individual performance (Mehra, Kilduff, & Brass, 2001). Furthermore, studies have consistently found that the degree to which members broker others in internal group social networks – measured by betweenness centrality - positively predicts leadership emergence and group effectiveness. For example, Brass (1984) found individuals' brokerage position (measured by betweenness centrality) in workflow and communication networks are associated with their perceived influence and subsequent leadership role occupation. Recently, Kilduff, Mehra, Gioia, and Borgatti (2017) found that people who occupied brokerage positions in trust network (as indicated by network constraint) tended to be seen as leaders if they are high rather than low self-monitors. Finally, Balkundi and colleagues (2009) also found that leaders' brokerage in team advice network (as indicated by betweenness centrality) positively predicts conflict, negatively predicts viability.

Although individuals in positions of intermediation or in central position have been found to have greater influence, little attention has been paid to the possibility that actors in a social structure are differentiated with regard to activities or interests, so that

exchanges between some actors differ in meaning from exchanges between other actors (Gould & Fernandez, 1989). Brokering people who all belong to the same group can be expected to be both more challenging and, from the perspective of leadership, more rewarding than brokering between people who belong to the same group. In an early study, Gould (1989) found that brokering between rival factions in community elites enhances social influence but brokerage between members of the elite who are not rivals does not. Although influence and leadership are related constructs, they are not interchangeable. One can imagine a person who is seen as influential but is not seen as a leader. Emphasizing the importance of differences in exchanges across groups or types of people, this study examines whether individuals who, with their informal social network ties, bridge across people who belong to different types/groups, emerge as leaders in the eyes of their peers. It is possible that such individuals might suffer from a deficit of legitimacy rather than being seen as leaders. Because they bridge across group boundaries, these boundary spanners ("gatekeepers" in the specialized language, taken from Gould and Fernandez (1989)) might be seen as outsiders, untrustworthy and suspect.

The purpose of this study is to investigate how network position leads to leadership emergence in the creative contexts. I chose the orchestra as a research site for this study. The orchestra provides a rich setting to test the effects of social network position on leadership emergence. Several aspects of the orchestra are noteworthy. First, symphony orchestras, their conductors, and musicians can be used as analogies for the flatter and more creative organizations of the future (Hunt, Stelluto, & Hoojiber, 2004). Therefore, I argue that leadership emergence in orchestras is akin to leadership

emergence in other flat organizations in pursuit of creativity. Scholars also argue that influence in orchestras should be considered as a two-way process (Atik, 1994). Furthermore, in his seminal work on orchestra interaction, Robert Faulkner has suggested that the system of authority in orchestras should be studied dynamically, as ‘‘a network of interacting human beings, each transmitting information to the other, sifting their transactions through an evaluative screen of beliefs and standards’’ (Faulkner, 1973a, p. 156). As Koivunen and Wennes (2011, p. 54) argue, uses an ‘‘individualistic notion of leadership,’’ which ignores the role of musicians during the legitimation process. Second, the orchestra is an ideal place to investigate creative leadership because it has unique characteristics of creative organizations. For example, creative efforts of the orchestra are generally complex, novel, and ill-defined tasks (Faulkner, 1973a). Third, projects of the orchestra involve high degrees of interdependence among individuals of different functional expertise (Baker & Faulkner, 1991). Because of this interdependence, coordination among all musicians in real time is vital. Finally, the orchestra makes a formal distinction between different leadership roles (Faulkner, 1973b). This divide is important because each role entails different knowledge and information, including requirements for specific networks that enable these actors to contribute to the success of collective efforts by coordinating the activities in the orchestra.

Drawing from creative leadership literature and a social network approach to leadership, this study aims to explore how brokerage in informal social networks is related to leadership emergence. I hypothesize that individuals brokering between social groups (i.e., different roles) in the orchestra will be more likely to be perceived as leaders because *they are favorably positioned to facilitate communication, coordinate collective*

actions, and transfer knowledge across groups. This kind of inter-group brokering is key to producing a creative collective output and is therefore prized by members of the orchestra. Coordination across groups of people divided by their musical role and section is key for successful musical performances. I will focus in particular on a kind of brokerage that Gould and Fernandez (1989) described in terms of the "gatekeeper" role. Gatekeepers serve as bridges, in the informal social structure, between members of their own group and members of other groups. I further argue that some people will be better able than others to leverage their position as gatekeepers in the informal social structure into a reputation for leadership in the eyes of others. Borrowing from the literature on how social skills are related to the success of brokerage (e.g., Kilduff et al., 2017), I propose that Nunchi—a Korean term that captures social skills and social awareness--operates as a moderator between brokerage and leadership emergence. Gatekeepers who possess Nunchi, I argue, will receive more leadership nominations than people who lack Nunchi.

This dissertation attempts to make several contributions. First, this study contributes to the literature on social network approaches to leadership in helping understand how brokering between groups is associated with leadership emergence. It shows that leadership is associated not with merely acting as a bridge between others, but with acting as a bridge between different kinds/groups of organizational members. Second, this study adds to the scant literature on leadership in creative organizations. I find that, at least in symphony orchestras, informal social networks matter for leadership emergence. Even after statistically accounting for the predictable effects of formal rank and tenure, occupancy of boundary-spanning positions between different groups (rather

than bridging between people irrespective of which group they belonged to), was significantly related to the conferral of leadership. Finally, this network study of leadership draws on data from Korea, a collectivist country where brokering between groups is arguably related to a reputation for untrustworthiness. I find that even in this collectivist context, individuals who through their informal friendship networks span between group boundaries emerge as leaders in the eyes of others.

CHAPTER 2: LITERATURE REVIEW

Approaches to the Study of Leadership

Scholars emphasized leadership as social influence process that can occur at the individual, dyadic, group, or strategic level, where it can be shared within a top management team (Avolio, Sosik, Jung, & Berson, 2003). These definitions typically underscore whether individuals in the group emerge as leaders depend on the influence being exerted on the others. Therefore, the hierarchical roles of a specific person might not be important to identify the most influential leaders within a group (Meindl, 1993).

Traditionally, most leadership research has focused on the characteristics of individuals who hold formal positions in organizations and specific leadership situations defined from the perspectives of leaders, investigating what the personal trait of effective leaders is, how they behave in a specific situation and what the leader-member relationship looks like. For example, traditional leadership research has examined the role of certain attributes of formally assigned leaders such as traits (House, 1977) and behavioral styles (Podsakoff, Todor, & Skov, 1982), and situational attributes such as task structure (Fiedler, 1971), and the quality of leader-member exchange (Graen, Novak, & Sommerkamp, 1982).

On the contrary, Meindl (1995) introduces follower-centered leadership model that considers leadership “to have emerged when followers perceive their relationships with others in the groups as a leadership-followership dimension.” This approach is interested in how followers construct leadership - how followers view their leaders and leaders’ behavior. Meindl (1993) pointed out that conventional approaches tend to study leadership in terms of leaders and their personal characteristics, and thus are not likely to

capture dynamics between followers. However, a social psychological approach emphasizes followers who are presumably affected by their social contexts. Especially, this approach has focused on leadership as perceived and constructed by group members. Therefore, the social context and network structure of the group might be important. Meindl's follower-centered model have been explored by a number of researchers interested in understanding the role of followers in the leadership process. For example, several researchers have discovered that follower characteristics such as self-efficacy, motivation, personality, and emotion (Dvir & Shamir, 2003; Pastor, Mayo & Shamir, 2007; Phillips & Bedeian, 1994) significantly influence perceptions of leadership and leader-member relationship.

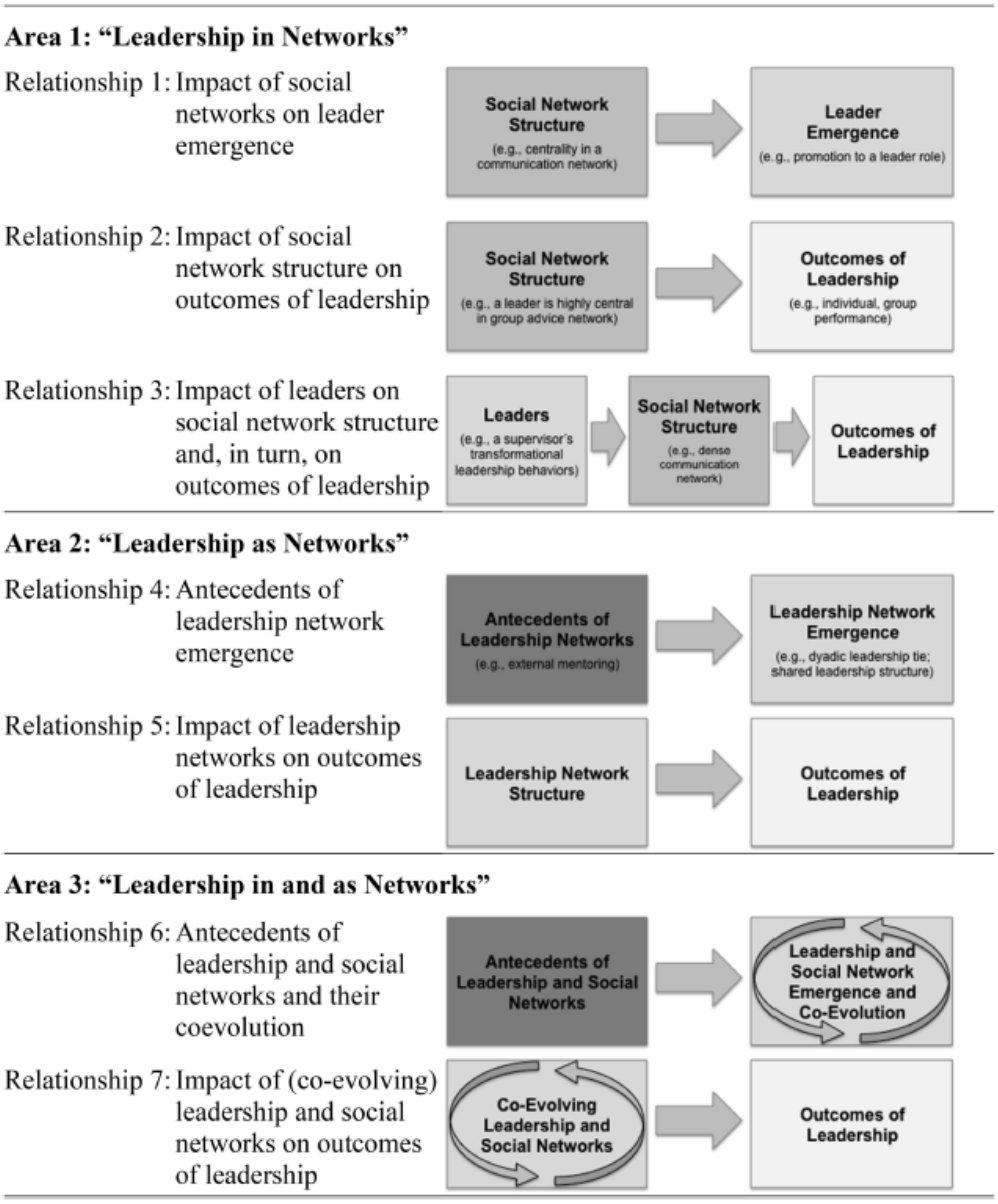
Network Approach to Leadership

Consistent with the arguments of follower-centered approach, scholars have paid attention to network approaches to leadership such as distributed leadership and leadership emergence by focusing on the relational nature of leadership. Building on the idea that leadership is a relational phenomenon, scholars have conducted voluminous studies of leadership from the social network perspective. They developed fine-grained theoretical foundations and utilizing social network method because social network approaches to leadership are well positioned to explain leadership emergence and effectiveness (Carter et al., 2015). For example, scholars have attempted to provide a more generalized network perspective to leadership arguing that the main mechanism of leadership is associated with cognition since a leader's cognitive representations of

networks determine both the choices leaders make and the leader's effectiveness (Balkundi & Kilduff, 2006).

In order to examine the questions of leadership emergence and effectiveness in social network perspective, Carter and colleagues (2015) developed a very useful framework to discuss past research (see table 2.1). They revealed three distinct areas of research in this realm. First, researchers provide compelling evidence that individuals' social networks lead to the attainment of leader roles and that social network structure predicts outcomes of leadership (e.g., Parker & Welch, 2013; Mehra, Dixon, Brass, & Robertson, 2006; Cummings & Cross, 2003). Second, others emphasize leadership relationships – leadership networks. Research in this area conceptualizes leadership as the emergence of a leadership network, and equates leadership effectiveness with the outcomes of leadership networks (e.g., Davis & Eisenhardt, 2011; Willer, 2009). Finally, researchers also utilize network approaches to explain leadership emergence and effectiveness by considering the interplay between social and leadership networks as well as the outcomes of their coevolution.

Table 2.1: A Framework for Research on Leadership using a Social Network Approach (adapted from Carter et al., 2015)



Studies in the first area use social networks to explain leadership, with the general idea that the embedding social structures individuals operate within influence their emergence as leaders, as well as the outcomes of leadership. Explaining leadership emergence as a consequence of social network structure, scholars in the first area provide

compelling evidence that individuals' social networks lead to the attainment of leader roles. First, regarding the impact of social networks on leader emergence, Parker and Welch (2013) revealed that the size and density of scientists' collaboration networks predict their occupation of a leadership position. Mehra and colleagues (2006) also found that leaders' centrality in external and internal group friendship networks positively related to group performance and leader reputation. Second, scholars investigate the impact of social network structure on outcomes of leadership. For example, Cummings and Cross (2003) fund that leaders' structural holes, and core-periphery and centralized structures in team communication networks negatively predict team performance. However, although some theoretical work in the first area clarifies that leadership can be both formal and/or informal (e.g., Balkundi & Kilduff, 2006), most empirical studies in this area have focused on formal leaders.

Studies in the second area emphasize leadership relationships – leadership networks. Research in this area conceptualizes leadership as the emergence of a leadership network, and equates leadership effectiveness with the outcomes of leadership networks. In this area, scholars examine the effect of leadership networks on outcomes of leadership. For example, Davis and Eisenhardt (2011) found that dominating and consensus patterns in leadership process networks are associated with less innovation; rotating patterns associated with more innovation. Second, scholars investigate how antecedents of social and leadership networks are related to leadership network emergence and outcomes of leadership. For example, Willer (2009) found that partners who were perceived to have contributed more to collective action had higher status and influence, were cooperated with more, and received greater financial reward and found

that participants who received status for their contributions contributed more and perceived the group more positively.

The third area utilizes network approaches to explain leadership emergence and effectiveness by considering the interplay between social and leadership networks as well as the outcomes of their coevolution. This work has its origins in a set of classic studies that sparked a substantial body of organizational social network research in the following decades. For example, Bavelas (1950) demonstrated that occupying a central position in communication networks positively predicted nominations in leadership networks. Brass (1984, 1985) found individuals' centrality in workflow and communication networks are associated with their perceived influence. More recently, Neubert and Taggar (2004) demonstrated that the relationship between network position and leadership emergence is moderated by gender such that centrality in team advice and social support networks more strongly predicted incoming leadership reliance ties for men than for women.

In conclusion, drawing from a leadership networks paradigm that emphasizes "the complex and patterned relational processes that interact with the embedding social context to jointly constitute leadership emergence and effectiveness" (Carter et al., 2015: 613), social network approaches have investigated the antecedents and outcomes of leadership networks (see Table 2.2 for review). For example, Previous research shows that social networks influence leader effectiveness (e.g., leader emergence) and group performance (Shaw, 1964; Cummings & Cross, 2003; Mehra, Smith, et al., 2006; Carson et al., 2007; Balkundi et al., 2009; Collier & Kraut, 2012; Parker & Welch, 2013). In addition, Previous research has shown that individuals' occupation of certain positions in social networks relates to leadership emergence. For example, central position of actors

predicts leadership emergence (Brass, 1984; Mehra et al., 2006; Bono & Anderson, 2005). Second, prior research also shows that social actors who connect disconnected others – brokers - tend to emerge as influential people (Brass, 1984; Sparrowe & Liden, 2005).

Given the increasing prevalence of flatter, team-based organizational structures and self-managed, cross-functional teams, this leadership network paradigm is even more relevant today. Therefore, scholars suggest that researchers should revisit fundamental ideas from the past and instantiate them into future research within the field. For example, even though prior research on leadership using a network approach has considered multiple exogenous explanations for leadership emergence, they argue that more research is needed that develops the theoretical rationale for why certain exogenous and endogenous factors influence leadership emergence (Carter et al., 2015).

Although previous studies show the importance of social networks on leadership emergence and leadership effectiveness, I also argue that little attention has been paid to several research questions. For example, few field-based studies that examine the effects of brokerage on leadership perceptions are relatively rare. In addition, studies of leadership emergence rarely distinguish between general brokerage and brokerage between groups. Finally, studies of leadership emergence have failed to distinguish between the effects of local/triadic brokerage (i.e., extent to which a person is a broker between two others) versus global brokerage (i.e., extent to which a person represents the shortest path among others in a system).

In this study, I will focus on how and why specific network positions are associated with leadership emergence because previous research did not closely examine

the mechanism by which actors' social network positions contribute to leadership emergence. Drawing from theories of brokerage, I examine how individuals emerge as a leader in the context where creative leadership is a critical factor for collective creative outcomes.

Table 2.2: Exemplar Studies on Network and Leadership

Author	Social Network relations	Key findings	Sample
Shaw (1964)	Communication networks (centrality, density)	Centrally located individuals are likely to hear about information faster. The higher the density of connections within a group, the more efficient the group was at problem-solving.	Outlines the major findings of experimental investigations
Cummings & Cross (2003)	Communication ties (effective size, core–periphery, centralization)	Leaders' structural holes in team communication networks, and core–periphery and centralized structures in team communication networks negatively predict team performance.	182 work groups in a global organization
Mehra, Smith, et al. (2006)	Team leadership ties	Distributed-coordinated leadership network structures are more effective than distributed-fragmented structures and distributed structures, but not more effective than vertical network structures.	28 randomly selected field-based sales teams of a large financial service firm
Carson et al. (2007)	Team leadership ties	This study examined antecedent conditions that lead to the development of shared leadership and the influence of shared leadership on team performance. Team environment and coaching predict density in team leadership networks and then teams relying on multiple members for leadership performed better than those in which internal leadership	59 consulting teams comprised of MBA students

		was relatively scarce.	
Balkundi et al. (2009)	Advice ties (in-degree centrality, Betweenness centrality)	Team leaders' centrality in team advice network negatively predicts conflict, positively predicts team viability. Leaders' brokerage in team advice network positively predicts conflict, negatively predicts viability.	336 members in two plants of a large manufacturer
Collier & Kraut (2012)	Communication ties (strong, weak, Simmelian ties)	Initial and weak communication ties with periphery members, later communication ties with current leaders, and Simmelian ties to leaders significantly predict promotion to a formal leadership role.	2,442 candidates for Administrator positions in Wikipedia
Parker & Welch (2013)	Collaborative and advice tie (size and density)	The size and density of scientists' collaboration networks predict their occupation of a leadership position in science centers.	A field sample of scientists
Sorrentiono & Field (1986).	Advice ties (need to add)	Showed a strong relationship between giving task-oriented advice and leadership emergence.	12 4-member groups of students participated in an experiment
Neubert & Taggar (2004)	Advice ties, support ties (in-degree centrality)	Centrality in team advice and support networks, and personality traits predict incoming ties in leadership networks more for men than for women. General mental ability predicts incoming ties in leadership networks more for women.	237 team members in a manufacturing organization
Bono & Anderson (2005)	Advice ties (normalized in-degree centrality)	Managers' transformational leadership predicts managers' centrality in organizational advice and influence networks. Transformational leadership positively predicts direct reports' centrality in organizational advice and influence networks.	152 employees of six small organizations
Mehra, Dixon, et al. (2006)	Friendship ties (eigenvector centrality)	Leaders' centrality in external and internal group friendship networks positively related to group	336 employees of a financial service

		performance and leader reputation.	company
Venkataramani et al. (2010)	Advice ties (in-degree centrality)	Formal leaders' centrality in advice networks and leaders' connections to other senior leaders predicts follower perceptions of leaders' status.	184 bank employees
Balkundi et al. (2011)	Advice ties (degree centrality)	Team leaders' centrality in the team advice network positively predicts follower attributions of leader charisma and team performance.	472 people in 69 Teams across four sites and 356 persons in 79 four- or five-person teams
Brass, D. J. (1984).	Work flow and communication networks (betweenness centrality)	Individuals' centrality in workflow and communication networks are associated with their perceived influence and subsequent leadership role occupation.	140 employees at a newspaper publishing company
Sparrowe & Liden, (2005)	Trust ties, advice ties, (betweenness centrality)	When formal leaders are central in organizational advice network, the relationship between members' advice network centrality and members' influence is positive for members who share ties with their leaders in the organizational trust network (i.e., sponsorship).	300 employees from two organizations.
Kilduff et al. (2017)	Trust brokerage (network constraint)	People who occupied brokerage positions in trust network tended to be seen as leaders if they we high rather than low self-monitors.	91 employees a high-technology company

Network and Creative Leadership

Creative Leadership. Given that leadership is clearly related to creativity (George, 2007), we can ask the following question; how might leadership of creative efforts differ from traditional leadership activities? A number of recent studies identified some common elements that make leading creative people unique as compared to other types of leadership. First, leading creative people and creative efforts may also differ

from traditional leadership in the way that leaders engage in influence processes (Mumford, Peterson, & Robledo, 2013). Second, there is a large body of evidence indicating that highly creative people are relatively unique and operate in fundamentally different ways than the average person when engaging in a creative task (Reisman, 2011). Third, the type of work where creativity is critical is different from the work commonly engaged in by most people. Creative efforts are generally complex, novel, and ill-defined tasks where solutions must be original and useful (Ward et al., 1999). Therefore, creativity requires skillful leadership in order to maximize the benefits of new and improved ways of working – creative leadership.

However, scholars argue that a "one size fits all" conceptualization of creative leadership is inadequate, probably because the phenomenon itself is sensitive to contextual variability. For example, Mumford and Licuanan (2004) noted that the leadership of creative efforts requires "a new wave of research expressly intended to account for leadership in settings where creative people are working on significant innovations" (p. 170). More recently, Hunter and colleagues (2011) and Vessey, Barrett, Mumford, Johnson, and Litwiller (2014) observed that most studies on creative leadership tend to ignore substantial differences between leaders, between followers, and especially between contexts.

In a review of creative leadership, Mainemelis and colleagues (2015) recently proposed that the definition of creative leadership should include both a global component and three more specific components. They identified a global construct of creative leadership, which refers to leading others toward the attainment of the creative outcome. After examining the contextual characteristics associated with three

conceptualizations, they suggest that creative leadership entails three more specific components that capture context-dependent manifestations: facilitating employee creativity; directing the materialization of a leader's creative vision; and integrating heterogeneous creative contributions. These components represent three distinct collaborative contexts of creative leadership.

Various streams of organizational research have examined the relationship between creativity and leadership across distinct collaborative contexts by focusing on these three different components. Among substantial studies on creative leadership, three research achievements are especially relevant for this study.

First, prior research has highlighted the importance of social networks for creativity. For example, Baer (2010) argued for the strength of weak ties perspective in creativity (see also Perry-Smith, 2006; Perry-Smith & Shalley, 2003) and found that actors are more creative in idea networks of optimal size, weak strength, and high diversity, and when they score high on openness to experience. Nevertheless, Venkataramani and colleagues' (2014) work is highly relevant for this study. Their study is the first attempt to address the role of leader's social network ties for employees' radical creativity (beyond employees' social networks and ties). In some organizational contexts, this study shows that leaders can act as critical liaisons by sharing their understanding of different perspectives, ideas, and obstacles and by helping team members connect the dots that can lead the team to radical creativity (Mainemelis et al., 2015). Note that a distinct pattern, where the leader himself or herself connects most of the dots, is observed in research on Integrative creative leadership as creative brokerage.

Second, given that multiple creative leaders can emerge at work contexts where Integration is not achieved by a single leader but by shared forms of leadership, in the creativity literature, there has been recently substantial work on collective creativity. For example, Hargadon and Bechky (2006) suggested that collective creativity represents specific moments when individual members' experiences, perspectives, and ideas are brought together to create new solutions to problem. They further identified four types of social interaction that facilitate collective creativity: help seeking, help giving, reflective reframing, and reinforcing. Interestingly, note that the number of studies that have simultaneously examined collective leadership and collective creativity is still small.

Third, with respect to the emergence of multiple leaders in creative leadership contexts, the emphasis has also been given on dual leadership in various other work contexts. In one sense, dual leadership may refer to dual creative leadership in the context of a temporary creative project, such as the production of an opera performance. In a study of Italian operas, Sicca (1997) observed that the production of any given opera entails dual creative leadership: Like orchestras, operas have a music conductor who manages the orchestra; and like theatres, they have a director who manages the acting performances.

As such, although prior research has reported that distinct creative leadership contributes to collective creative outcomes across different research contexts, they have little-paid attention to the mechanism by which members (i.e., multiple leaders) without any formal authority emerge as creative leaders. For example, rather than informal leaders, many network approaches to leadership focused on how formal leaders' social networks are associated with leadership reputation or performance. Therefore, this study

examines the relationship between social networks and leadership emergence in creative organizations by combing previous research achievements of creative leadership and social networks.

Leadership in Orchestra. There exists a considerable amount of research about symphony orchestras in organization studies. The Harvard study by Allmendinger and Hackman (1996) and Lehman (1995) focused on the changing environments of East German orchestras. In the United Kingdom, Maitlis (1997) conducted an extensive ethnography on symphony orchestras and Ladkin (2008) analyzed a concert performance. Koivunen (2003) applied a relational constructionist perspective in their analysis and described the various interaction patterns in the orchestra organization. Glynn (2000) has studied American orchestras and the musicians' identity construction. Bathurst et al. (2007) explored change processes in orchestras and Marotto and colleagues (2007) have studied collective virtuosity in organizations by an example of a symphony orchestra.

I chose orchestra as a research context because the orchestra seemed to be an ideal place to examine the effects of network positions on leadership emergence in creative organizations. First, multiple members may emerge as leaders in the orchestra where horizontal communication and coordination are important for collective creativity. Second, there is substantial agreement that in the orchestra context creative performance depends not only on one or more individuals' creative contributions, but also on other people's supportive contributions. For example, an essential characteristic of the performance of orchestral music is that a joint interpretation is produced by a multiplicity of musicians (Boerner, Kraus, & Gebert, 2004). Finally, the research on leadership activities and leadership processes in the orchestra is rather limited. There are a few

comprehensive attempts to explore in detail the nature of the leadership process in orchestras (Atik, 1994) and some early studies on orchestral interaction (Faulkner, 1973a; Parasuraman & Nachman, 1987). None of these studies has addressed the relationship between social networks and leadership in the orchestra.

CHAPTER 3: THEORY AND HYPOTHESES

Brokerage and Leadership

This study examines the relationship between brokerage and leadership emergence in creative organizations. Previous research consistently has shown that individuals' occupation of certain positions in social networks relates to leadership emergence. First, scholars have reported that the central position of actors predicts leadership emergence. For example, field-based studies have found that central positions in informal social networks are positively related to individual influence (Brass & Burkhardt, 1992). Mehra and colleagues (2006) also found that leaders' centrality in external and internal group friendship networks – measured by eigenvector centrality – is positively related to group performance and leader reputation. Focusing on the role of advice giving in predicting leadership, Bono and Anderson (2005) provided evidence that social actors central in advice networks tend to perceived as transformational leaders by others.

Second, studies have consistently shown that social actors who connect disconnected others – brokers - tend to emerge as influential people. For example, focusing on access and control benefits, Sparrowe and Liden, (2005) found that When formal leaders are central in organizational advice network (i.e., measured by betweenness centrality), the relationship between members' advice network centrality and members' influence is positive for members who share ties with their leaders in the organizational trust network (i.e., sponsorship). Kilduff and colleagues (2017) also found that people who occupied brokerage positions in trust network (as measured by network constraint) tended to be seen as leaders if they are high rather than low self-monitors. In

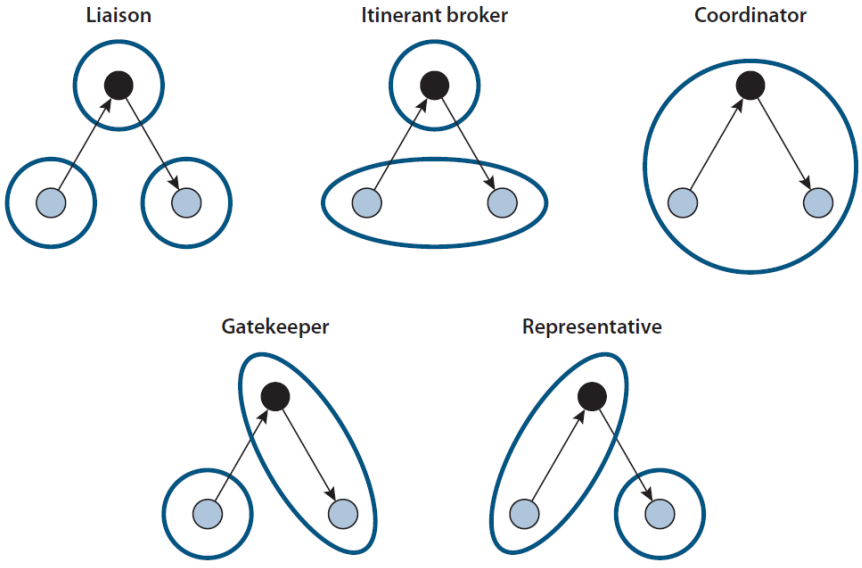
short, previous research has shown that brokerage demonstrates the positive influence on becoming a leader.

In this study, I also argue that occupying a position between disconnected others – brokerage - is important to be a leader in creative organizations. However, I theorize that brokering residents of distinct network communities (i.e., gatekeeper brokerage), rather than simply brokering between two otherwise unconnected others in the organizations is an important antecedent of leadership emergence in specific contexts such as the orchestra. Formally, brokerage is defined as "the process of connecting actors in systems of social, economic, or political relations in order to facilitate access to values resources" (Stovel & Shaw, 2012: p.141). Brokers normally bridge a gap in social structure and help goods, information, opportunities, or knowledge flow across that gap (Stovel & Shaw, 2012). As I discussed, previous research found the positive relationship between brokerage and leadership emergence. However, Gould and Fernandez (1989) suggested the refined understanding of brokerage by distinguishing different structural form. They argue that we need to consider the possibility that "actors in a social structure are differentiated with regard to activities or interests, so that exchanges between some actors differ in meaning from exchanges between other actors" (p.91). They suggest that we can take such differentiation into account by partitioning a system into a set of mutually exclusive classes or subgroups of actors. In this study, following Gould and Fernandez (1989)'s suggestion, I considered specific social groups in the orchestra in order to investigate the effects of brokerage on leadership emergence in the orchestra because brokering between different subgroups of actors might be important to be

perceived as a leader in the orchestra rather than simply considering brokering unconnected others.

Gould and Fernandez (1989) differentiate between various triadic configurations, arguing that subtle shifts in the structure of ties affect the type of brokerage that is possible (See Figure 3.1). In the brokerage relations they distinguish, it is possible for three actors in a triadic relation to all three belong to the same subgroup (i.e. division), or for just two actors to belong to the same subgroup and the third actor to a different subgroup, or for all actors to each belong to a different subgroup. Note that each type is associated with a particular structural configuration of information flow and group orientation, and subtly points to the limits of the broker's capacity to effectively facilitate interaction.

Figure 3.1: A typology of Brokerage Structures, adapted from Gould & Fernandez (1989).



The Main Effects of Gatekeeper Brokerage

This study focuses on boundary spanner role – individuals connecting one or more members of their own social group to others in the different social group. In the typology of brokers identified by Gould and Fernandez (1989), the boundary spanners considered in this study are analogous to the "gatekeeper" type broker. The gatekeeper and representative types of a broker, because they perform "information processing" and "external representation" functions, have clear relevance for research on "boundary-spanning" roles. I argue that individuals brokering between subgroups (i.e., "boundary spanners") are likely to emerge as leaders because their network position might be beneficial for *coordinating roles or sections (instruments)* in the orchestra.

Boundary spanners have an information and knowledge dissemination role and thus may exploit their powerful roles in controlling knowledge flows (Fleming & Waguespack, 2007; Gould & Fernandez, 1989). These type of brokers are individuals participating to multiple subgroups and facilitating the transfer of information among them. Prior research has shown the importance of individuals who maintain relationships with colleagues in different organizational units (i.e., "boundary spanners") in facilitating cross-unit transfers (Allen & Cohen, 1969). Thus boundary spanners likely gain information benefits by communicating with actors that belong to separate subgroups (Burt, 1992).

Brokerage also involves coordination. Coordination can be achieved through hierarchical mechanisms, such as a broker's use/threat of coercion or compliance related to the broker's legitimate authority and institutional embeddedness. But coordination can

also be achieved through non-hierarchical mechanisms, such as negotiation or the mobilization of trust-based relationships. Individuals brokering between subgroups can facilitate coordination and resolve differences among other members in the network, especially when they have shared a need and the ability to collaborate (Baker & Obsfeld, 1999; Obsfeld, 2005). By serving as brokers, individuals brokering between subgroups can exploit necessary connections to communicate effectively with subgroups and thus help everyone collaborates together smoothly.

I propose that brokering between social groups in the orchestra is a predictor of leadership because it is likely to facilitate coordinated actions between social groups that have different interests and perform different activities in the orchestra. Scholars consistently stress the importance of coordination and heterogeneity in the orchestra. For example, the orchestra is a team with members performing skilled and specialized roles in a tightly coordinated and creative manner (Brodsky, 2006; Young & Colman, 1979). Both conductors and musicians train for years to achieve the alignment and coordination that are necessary for superior performance (Hunt et al., 2004). Indeed, musicians, volunteers, and paid staff whose contributions must be closely coordinated to accomplish the orchestra's work. Scholars also argue that orchestras represent large, heterogeneous workgroups with highly interdependent work tasks (Boerner & von Streit, 2005). High heterogeneity can prevent organizational members from communicating effectively, which makes coordination more difficult. In the orchestra, therefore, the difficulty and complexity of collaborating with a group of partners create the need for proper coordination. Therefore, coordination is one important task for leaders in the orchestra.

In the orchestra where coordination needs are high, I argue that individuals

brokering between social groups are more likely to be perceived as leaders because of their ability to reach diverse others in social groups. There are a couple of reasons that brokering between social groups facilitate coordination and knowledge transfer, and as a result, leads to leadership emergence in the orchestra.

First, the ability to coordinate musical activities might be an important factor to be perceived as a leader. From the perspective of musical performance, the success of both musicians and conductors in the artistic quality of performance highly depends on the fit of interpretation (Adorno 1968). An essential characteristic of the performance of orchestral music is that a joint interpretation is produced by a multiplicity of musicians. Therefore, individual quality criteria such as sound and tempo are not isolated phenomena but must be so coordinated through synchronized playing that the guiding conception of an interpretation is perceptible. Coordination in the orchestra makes special demands: since individual musicians have to execute their tasks at the same time, there is simultaneous interdependence (Saavedra, Earley, & Van Dyne, 1993) among performers. Interviews with several musicians confirmed the importance of coordination in the orchestra. *"In my opinion, coordination is the key for success in the orchestra. For example, frequent member change in brass and wind section sometimes leads to serious coordination problem inside the orchestra because players usually have unique and different play styles and opinions about music. In other words, it would be not easy to coordinate different play styles and make orchestra's unique sound if many players come in and out." (A flute principal of Yong-In Philharmonic Orchestra)*

Second, from the perspective of non-musical issues, brokers in orchestra permit communication between pairs of actors who do not regularly communicate with each

other. There are three reasons why the ability to establish such indirect links should be crucial in an orchestra setting. First, the diversity of individuals in orchestras often makes it extremely unlikely that any given actor will be able to maintain routine communication ties with all others. “They continue to remain relative strangers, for few reported that they associated with each other outside of participation in the orchestra.” (Malhotra, 1981: p.105). One of my interviewees confirmed this: *“Like other orchestras, we tend to hang out together with people who play same instruments.”* As a result, actors should focus their communication efforts on actors likely to provide them with useful information, that is, actors who themselves have many communication links. Consequently, actors whose ties bridge specific interest groups (e.g., roles or sections) facilitate the flow of information in the orchestra. Second, actors in brokerage positions may link pairs of other actors who need to communicate for the best concert performance that makes their activities interdependent. Actors tied to both subgroups (i.e., interest groups) will be in a position to establish a temporary but essential communication link between them. Indirect linkages are also necessary for the formation of “shared understanding” of music. For these reasons, actors linking otherwise unconnected pairs of actors play a critical role in the orchestra because they permit information to flow easily among a diverse set of players, which in turn allow actors to coordinate their efforts to influence.

Finally, orchestras are complex and stratified settings with well-defined statuses and roles (Faulkner, 1973b). In an orchestra, there are four different leadership roles. First, the conductor has absolute authority for leading orchestra’s performance (Cirone, 2011). He or she should direct and coordinate the activities of the musicians. A musician said, “I soon came to admire Szell’s interpretation and his ability to control the

orchestra." (Angell & Jaffe, 2015). Such interpretation is a constant negotiation between the conductor's musical vision, the vision of the musicians, and their ability to realize it, or perhaps even surpass it (Koivunen, & Wennes, 2011). Second, the roles of managing director include goal-setting, motivation, and time and stress management. Managing directors usually need to have both political skills and social skills. Third, the concertmaster handles musical aspects of orchestra management. Concertmaster has to be a superb violinist, and have great interpersonal skills or thick skin or both. Fourth, organizational success is closely tied to the efforts of the principals in each section (Faulkner, 1973a). Every section has a principal who is generally responsible for leading the group and playing orchestral solos. The core job of principals is to deliver music interpretation of conductor to musicians, train their sections technically and musically. Generally, musicians have to realize the conductor's ideas for interpretation. In order to help musicians understand and interpret the conductor's vision of music, principals and concertmaster should play the role of a medium delivering creativity and interpretation.

As I discussed, orchestra is less hierarchical, but needs strong leadership to coordinate activities for the success of concerts because in the orchestra somebody needs to lead this project-based organization even though one central figure like the conductor has huge power over musicians. Therefore, the issue of leadership emerges. For example, would-be informal leaders - individuals brokering between subgroups for this study – need to facilitate coordination and resolve differences among other members in the network. As some musicians said, there are always emerging issues related to music and management. One musician said, *"This orchestra is well functioning, but there might be conflicts about planning concert (e.g., selection of repertoire) and conflicts financial*

issues such as how to deal with the financial difficulties and how to run the orchestra."

In a specific context where communication of ideas and coordinated actions are critical for success, I argue that people occupying brokerage position between social groups are likely to be a leader because they are in favorable position to transfer conductor's idea, music-related knowledge, general information, and coordinate actions across social groups by occupying a favorable network position in informal networks. In this study, I take into account two social groups in the orchestra: sections and roles. These social groups bound sets of actors that know one another, have access to the same kinds of resources, and share the same kinds of perceptions. First, I observed that music related issues including information and knowledge and specific knowledge for interpretation of music flow through sections in the orchestra through interviews with musicians. Second, different kinds of information and knowledge flow through roles within the orchestra. For example, they have exchanged opinions about administrative issues because they think information and knowledge about the management of orchestra should be shared across all different roles including chair group, and members. In addition, there are frequent conversations about music related issues between principals and members, and the conductor and concertmaster. They seek and provide advice about music because they are also players, while some players undertake administrative leadership roles.

In conclusion, brokering between social groups are beneficial for individuals to facilitate knowledge transfer and coordinated actions, and thus they are likely to emerge as a leader in the orchestra. In addition, from the perspective of information processing, they can access to information necessary to contribute to collective projects and incorporate ideas from disconnected others to understand conductor's ideas and

management issues. Taken all together, I hypothesize that brokering between social groups (i.e., roles and sections) contributes to leadership emergence in the orchestra.

Hypothesis 1. Individuals brokering between roles – gatekeeper brokerage (role) - are more likely to be perceived as leaders by the orchestra members.

Hypothesis 2. Individuals brokering between sections – gatekeeper brokerage (section) - are more likely to be perceived as leaders by the orchestra members.

The Moderating Effects of Gatekeeper Brokerage and Nunchi

Having considered the main effects and mediation effects, I will focus on interactions between individual differences and brokerage positions in predicting leadership emergence. Brokers derive value by enabling the flow of resources between otherwise unconnected subgroups within a larger network (Marsden, 1982; Burt, 1992). However, colleagues will be less likely to trust a broker (Coleman, 1988; Burt, 2001). Therefore, brokers also encounter difficulties when they attempt to span communities. Because brokers by definition contrive less cohesive and less trusting contexts, the probability that they will assume leadership roles remains highly contingent on building trust with other community members. Therefore, I argue that brokerage positions and interpersonal skills interact to influence leadership perceptions. In the next section, I will suggest interpersonal skills as moderators.

Individual Differences in Network Research. The social network scholars have neglected the dynamic interplay between individual actors and social structures

across levels. However, recently the social network approaches become interested in organizational members as agents who succeed in occupying structurally advantageous positions in a network. Recognizing the possibility that the network positions of individuals in their social environments might be influenced by individual differences, scholars suggest it is promising to explicate how individual characteristics such as cognition and personality affect network positions of social actors, and in turn determine individual and organizational performances. Responding this call for inquiry, Kilduff and Tsai (2003) introduce two promising perspectives that explore the effects of individuals on social networks and the effects of social structures on individuals: cognitive network theory and theory of personality in explaining how a specific actor takes positions in a network. Cognitive network theory has tried to explain how individuals' perceptions of their social networks influence how social networks form, and how networks affect individuals' cognition by using several concepts such as cognitive balance, cognitive accuracy and cognitive maps. In addition, the second approach explores whether and how individuals' stable personalities such as self-monitoring and Big Five personality help actors occupy advantageous structural positions in their networks. With respect to the second stream of research, it would be promising to investigate how individual differences such as Machiavellianism or Self-monitoring and social networks interact. Drawing from the above discussion, I develop the hypothesis to explore the moderation effect of interpersonal skills and brokerage in this study. I argue that individuals' social skills may moderate the relationship between brokerage and leadership emergence.

Nunchi. I suggest that Nunchi, one of the key indigenous Korean cultural values, strengthens the relationship between brokerage and leadership emergence. Nunchi

is defined as an ability to evaluate social situations and understand others' intentions and emotions through implicit cues. The concept of Nunchi is closely related to collectivism and high context communication, which has been greatly impacted by Confucianism in East Asian countries (Heo, Park, & Kim, 2012). Conceptually, four aspects of Nunchi are very similar to the concept of "self-monitoring." Despite their different cultural backgrounds, the definitions also seem similar. Drawing from findings of Nunchi research and theoretical arguments from self-monitoring theory, I propose that Nunchi operates as a moderator between brokerage and leadership emergence.

Scholars (Heo et al., 2012) suggested that Nunchi includes four aspects: (a) awareness of a situation or context where interpersonal relationships happen, (b) doing or saying appropriate things in harmony with a given situation or context, (c) mindfulness and awareness of how another person feels and what another person wants, and (d) doing or saying appropriate things based upon how another person feels and what another person wants.

Koreans often use Nunchi in social situations, and it is usually expected and desirable to have Nunchi among Koreans when interacting with others. Early research on Nunchi has found that Nunchi is positively related to interpersonal relationship, to subjective wellbeing, and to self-esteem, and negatively related to emotional distress among South Koreans (Heo, 2014a; Heo, 2014b; Heo & Park, 2013). For example, Heo and Park (2013) revealed that people in the higher Nunchi group had significantly higher scores for self-esteem, life satisfaction, and interpersonal relationships than did people in the lower Nunchi group. Heo and Park explained that Nunchi was positively related to self-esteem, because fitting into and adjusting to meaningful relationships, as well as

following norms emphasized by one's culture, was important for developing self-esteem in cultures where self is viewed interdependently. Koreans also use Nunchi to resolve conflicts by compromising rather than confronting conflicts (Triandis, McCuster, & Hui, 1990). Nunchi is also used to take care of other members of the organizations (Heo et al., 2012). Therefore, I argue that having high Nunchi in Korea might positively contribute to the extent to which an individual exerts influence over others in the organization because he or she is likely to take care of others and take actions to solve problems such as emerging conflicts.

Theory and evidence also suggest that high self-monitors are motivated to use the rich information they collect about others tactically to create value by creating favorable images of themselves in the eyes of their interaction partners. For example, high self-monitors use their (relatively accurate) knowledge of exchange relations among organizational members to gain high-status reputations (Flynn, Reagan, & Amanatullah, 2006; Mehra et al., 2001). High self-monitors have been described as "consummate social pragmatists," able and motivated to project images designed to evoke positive affect and conferrals of status in their relations with others (Gangestad & Snyder, 2000: 531; DeBono, 1987)." In addition, high self-monitors, acutely attentive to social cues, take an active, initiatory posture in social interaction whereas low self-monitors generally adopt a non-directive approach. Further, managers higher in self-monitoring relative to managers lower in self-monitoring tend to be active in the provision of help to those suffering emotional problems in the workplace (Toegel, Anand, & Kilduff, 2007). Thus, high self-monitors are likely to be perceived as leaders in organizations in part because of their interest in the attitudes and behaviors of others (Kilduff, Mehra, Gioia, & Borgatti,

2017).

Drawing from previous research on the Nunchi and self-monitoring, I argue that individuals with high Nunchi also emerge as informal leaders because they are likely to take informal leadership roles to respond to others' situations and demands by evaluating social situations and understanding others' intentions and emotions through implicit cues. In fact, informal leaders emerge through a complex process of role taking and peer perceptual processes that determine who becomes a leader. For example, individuals might emerge as a leader by contributing to satisfying the needs of others (Neubert & Taggar, 2004). Taken all together, this line of reasoning led me to propose the following interaction hypotheses, each of which suggests that brokerage will have a stronger effect when brokers have high Nunchi. Throughout the hypotheses, I assume that Nuchi will strengthen the relationship between brokerage and leadership emergence when brokers have high Nunchi.

Hypothesis 3. Nunchi will moderate the relationship between gatekeeper brokerage (role) and leadership emergence such that the association will be stronger among individuals with high Nunchi compared with individuals with low Nunchi.

Hypothesis 4. Nunchi will moderate the relationship between gatekeeper brokerage (section) and leadership emergence such that the association will be stronger among individuals with high Nunchi compared with individuals with low Nunchi.

CHAPTER 4: METHOD

Overview of Studies

To test my hypotheses, I conducted two studies. In a pilot study, I tested main effects of gatekeeper brokerage on leadership emergence with data from university student orchestra. In a pilot study, I used respect relations as a leadership perception measure focusing on the relational aspect of leadership. In the main study, I sought to replicate the pilot study by testing hypotheses among musicians from three different adult orchestras. As such, the main study extends pilot study results across different orchestra contexts. More importantly, I used two different measures to identify informal leaders considering both the relational aspect of leadership and leadership as a phenomenological construct. Finally, I extended pilot study by investigating the moderation effect of individual social competence.

The Setting for the Pilot Study

For the pilot study, I chose the setting of a university student orchestra. Compared with a professional symphony orchestra, a student orchestra has slightly different aspects as a unique form of orchestra. Unlike professional symphony orchestras which have a large number of concerts and musical performances through the regular season, a student orchestra is a specific form of intense workgroup because it has only a couple of concerts a year. To be specific, all members are required to participate in every intense rehearsal for about two months during summer and winter breaks, and thus intense interactions would occur within such a short period of time. Therefore, it operates without a conductor during the semester. Although small musical activities and non-

musical events are held during the semester, it might not be easy for students to prepare large-scale concerts which perform big orchestra pieces and to interact with other students in the middle of the semester. In a nutshell, a student orchestra is one form of highly task (performance of concert)-oriented organizations where intense interactions occur during the short period of time.

This orchestra also has some characteristics of temporary organizations. They are governed through networks of relationships rather than by lines of hierarchy (Powell, 1990). Therefore, coordination relies heavily on social mechanisms such as reciprocity, socialization, and reputation. It is also self-governing, a self-managed group whose authority figures are nominated by team members (Guzzo & Dickson, 1996; Murnighan & Conlon, 1991). Self-managed teams consist of employees who are given significant authority and responsibility for many aspects of their work, such as planning, scheduling, assigning tasks to members, and making decisions. Scholars argue that self-managed organizations such as academia and Congress, appoint a subset of their peers to serve in coordinating or governing roles to achieve collective work outcomes and rely less on vertical lines of authority (Dahlander & Mahoney, 2011). I found that there are different administrative leadership groups (chair, chair group, administrative group) through interviews. Yet, compared with the professional symphony orchestra, their roles are usually restricted to supporting the performance of orchestra administratively – a selection of the repertoire, musicians, scheduling of regular concerts, budgeting - rather than supervising other members. Interestingly, while the staffs of professional orchestra take administrative roles, leadership groups of this orchestra are involved simultaneously in two activities: playing an instrument as an artist and supporting the orchestra as a

member of administrative leadership groups. Moreover, although this orchestra relies less on vertical authority to control over individuals, it possesses a hierarchical structure with fewer hierarchical levels but precise responsibilities. For example, as is the case in any symphony orchestra, within each subgroup of instruments exists an explicit hierarchy, the first stand of each string section leading his/her group. Even though the woodwind players are all soloists, there also exists a hierarchy.

Typically, just like professional orchestras, this student orchestra is also composed of string instrument sections including violins, violas, cellos, double basses; woodwind instrument sections such as flutes, oboes, clarinets, bassoons; brass instrument sections such as trumpets, French horns, and trombones; and a percussion section consisting most typically of tympani. In addition, it has seven independent teams or parts: first violin, second violin, viola, cello, double bass, woodwind, brass, and percussion section.

Sample and Procedure

I collected data from a university student orchestra in a large private university in Korea (called “Euphonia”). The primary task of Euphonia is to perform symphonic music in two concerts annually following intense rehearsals of two months for each concert. This orchestra is well known as an outstanding amateur student orchestra in Korea. It has been 25 years since founded. All orchestra members were invited to participate in the study. I visited the orchestra during rehearsals for a regular concert and asked students to a paper-and-pencil sociometric survey at the orchestra rehearsal site. It is important to note that data collection should be conducted during rehearsals because all

musicians are required to participate in rehearsals and also are not likely to join non-musical activities (Brodsky, 2006). Of 72 orchestra members, 59 (82% response rate) completed a questionnaire including network questions such as advice network, friendship network and respect network. The average age of respondents was 20.54. Of the 58 respondents, 31% were male and 69% were female. The respondents ranged in tenure in the orchestra from below 6 months from above 4 years. Turnover rate is approximately 10% per year. In terms of role, 70.5% were ordinary crew members without any administrative positions, 13.1% were part principal, 6.6% were chair group and director group respectively. Of these positions, chair group and director group were responsible for administrative management of the orchestra. The majority of the orchestra (68%) were string players, with all other orchestra instrument types being represented by woodwind, brass and percussions.

Measures

Friendship Network. I measured friendship network using the roster method, in which students responded about each of their members in the orchestra (Marden, 1990). Students were provided the whole roster of orchestra members and asked to identify the friendship tie. To be specific, following Burt and colleagues (2000), I measured friendship network by asking the students the following question: “Who are the individuals with whom you like to spend your free time, people you have been with most often for social activities, such as going out to informal lunch, dinner, or drinks, attending concerts or other public performance?”

Dependent Variable

Leadership Emergence. This study is distinct from other studies because I focus on the idea that brokering between subgroups is positively associated with different kinds of leadership constructs rather than influence that previous research used for measuring leadership emergence. Most previous research used a couple of popular constructs for measuring "who is going to be a leader?" First, scholars use influence ties and status as a proxy for informal leadership (Anderson et al., 2008). Second, a variety of studies measured leadership emergence by asking a specific question related to informal leadership (Kalish, 2013; Wolff, Pescosolido, & Druskat, 2002; Mehra, Smith, Dixon, & Robertson, 2006).

On the contrary, I measured leadership emergence with indegree centrality of respect relations. Respect relations were measured by asking the following question: "Who is the individual at this orchestra whom you most respect for the ability to deal effectively with people?" (Fernandez, 1991). This measure for leadership was computed using the in-degree centrality routine in UCINET 6 that represent leadership nominations in terms of respectfulness that received from other members.

With respect to the measure of respect relations, I argue that network measures of respect are valid indicators of relational leadership which focuses on the relationship between network structure and leadership. Scholars argue that respect is the most important of all social cues that employees receive from their work environment. Respect has been a common element underlying well-established research areas, particularly leadership, justice and work relationship (Ferris, Liden, Munyon, Summers, Basik, & Buckley, 2009). For example, in a study of what employees view as characteristics of

excellent leaders, “it was found that trust and respect dominated all other categories of managerial behavior” (Drehmer & Grossman, 1984; p.763). Leadership scholars acknowledge that leaders serve as important sources of respect for individuals and effective leadership involves expressions of respect (Rogers & Ashforth, 2017).

Scholars differentiate generalized respect from particularized respect (Rogers & Ashforth, 2017). Unlike generalized respect, which applies universally to category members as members, particularized respect is earned, as reflected in the sender’s assessment of the individual receiver. Bartel, Wrzesniewski and Wiesenfeld (2012: p.745) suggested that particularized (“earned”) respect based on “the extent to which employees are viewed as prototypical organizational members.” A prototype is “an abstracted list of features that are typical of category members” (Kunda, 1999: p.30) and prototypicality is the extent to which an individual matches such features. Prototypes are shaped by direct experiences with concrete exemplars and by various indirect experiences, such as workplace socialization (Dickson, Resick & Goldstein, 2008). Therefore, given that others attribute an individual to an informal leader based on prototypes of leadership in a specific context, I argue that particularized respect (i.e., leadership nominations) would be appropriate for measuring informal leadership.

In addition, according to Fernandez (1991), relations of respect reflect interpersonal influence being exerted in a dyad and the legitimate nature of leadership. Therefore, highly respectful people in the network (high central persons in respect relations) are likely to emerge as leaders because individuals with the greatest influence tend to be viewed as leaders by other group members. I argue that whereas interpersonal measures such as "Who has power over you?" may identify only power or influence

relations, relations of respect (e.g., "Who do you respect?") imply that “the chooser in the relation both recognizes and accepts the legitimacy of the person chosen (Fernandez, 1991: p.38).”

Independent Variable

Gatekeeper Brokerage (role and section). To test my hypotheses, I used Gould and Fernandez’s (1989) measure of gatekeeper brokerage. This brokerage role is one of five brokerage types that Gould and Fernandez (1989) identified in terms of the way individuals facilitate interactions between groups, not between individual people. They extended the concept of brokerage by taking into account the possibility that actors in a social structure may be differentiated with respect to activities or interests. Unlike conventional brokerage measures (Burt, 1992) that do not discriminate between brokerage opportunities that occur within a subgroup or across subgroups, Gould and Fernandez (1989)’s brokerage index has been used to identify the extent to which a focal actor is brokering within or across network communities (Fernandez & Gould, 1994; Hillman, 2008).

Each brokerage type is associated with “a particular structural configuration of information flow and subtly points to the limits of the broker’s capacity to effectively facilitate interaction” (Stovel & Shaw, 2012: p.142). According to the typology of Fernandez and Gould (1994), the individual who occupies ‘gatekeeper’ brokerage role gathers resources or information from the outside and distributes them to members of his or her own subgroups. On the contrary, the individual who takes a ‘representative’ role communicates information or negotiate exchanges with others in other groups that that

individual does not belong. As Fernandez and Gould (1994) noted, the gatekeeper and representative types of the broker are clearly relevant for research on “boundary spanning” roles because they perform “information processing” and “external representation” roles. However, note that gatekeeper and representative role differ for directed ties but yield the same results for undirected networks as in my data because friendship network is the undirected tie.

In Gould and Fernandez’s (1989) terminology, I counted the number of triads in which focal actor A and B belonged to the same subgroup where C belonged to a different subgroup so that B needed to go through A to reach an actor C in a different subgroup. To assess the extent to which an individual occupied a gatekeeper brokerage position in the friendship network, we used the social network software UCINET 6 (Borgatti et al. 2002) to calculate the measure of “gatekeeper.” In this study, as I theorized in chapter 3, I selected ‘role’ and ‘section’ as subgroups to calculate gatekeeper brokerage score. Through interviews, I found four different roles in this orchestra: chair group, administrative group, principals, and members. In addition, like normal orchestras, there are seven sections in this orchestra: first violin, second violin, viola, cello, double bass, wind, and brass. However, there is no conductor in this orchestra because it invites the guest conductor whenever they perform regular concerts.

Control Variables

Individual difference variables related to age, gender, major and tenure within the orchestra were used as control variables. Gender was a dichotomous self-report measure

(females were coded as a 1 and males were coded as a 0). Major represents whether each respondent majored study of classical music. Major was coded as 1 for “music major”, and 2 for “nonmusic major”

In addition, tenure is the number of years the individual had been in the orchestra. Finally, Betweenness centrality represents the frequency with which an actor falls between other pairs of actors on the shortest (i.e., geodesic) paths connecting them (Freeman, 1979, p. 221) and takes into account both direct and indirect ties. Scholars have consistently reported that information control measured by betweenness centrality predicted influence and performance (Brass, 1984; Mehra et al., 2001). Therefore, I included betweenness centrality as a control variable.

With respect to controlling for formal rank, I did not control for this in the pilot study. I conducted informal interviews with several students to identify the organizational structure of this orchestra. Interviews revealed that there is no formal organizational chart in this orchestra. Even though some students are responsible for the management of the orchestra, there was no clear hierarchy. In order to identify each member’s role (used to calculate gatekeeper brokerage score), however, I also did interviews with students, as a result, found four different roles in this orchestra.

The Setting for the Main Study

The main study aimed to extend the pilot study by examining leadership emergence in three different orchestras. Three orchestras participated in the main study. They have different characteristics in terms of hierarchy, motivation, the role of leaders

and members, capabilities, and voluntariness. Two orchestras are adult amateur orchestras where people with different background join as a musician to perform classical pieces in the orchestra. They comprised of highly motivated people with diverse professions. Finally, one professional symphony orchestra participated in the study.

Amateur Adult Orchestras. First, Seoul Citizen Orchestra has established twenty years ago. Currently, it is comprised of 55 adult amateur musicians who have diverse professional jobs. This orchestra has two different leadership roles (artistic and administrative) and rotates those roles. For example, the conductor and concertmaster select section principals once a year based on musical talent and other personal factors such as personality. Members of this orchestra elect their administrative staff every year who take full responsibility for the orchestra's daily operations such as taking care of scheduling, personnel, marketing, budgeting and so on. Although they should take care of the orchestra's non-music operations as an administrative team, they also have to participate in making music as an individual musician. In conclusion, this orchestra is a self-governing orchestra where musicians function in collaborative ways to deliver the best music to the audience. The main challenge for leaders in this orchestra is that they should manage a group of talented and highly motivated people to make beautiful music without any help from external experts.

This orchestra is well functioning, but there might be conflicts about planning concert (e.g., selection of repertoire) and conflicts financial issues such as how to deal with the financial difficulties and how to run the orchestra. In terms of social relationship, they tend to hang out together with people who play the same instruments. According to interviews, informal gatherings definitely exist inside the orchestra. In this orchestra,

generally, people hone their musical talent at home, but sometimes seek for musical advice at rehearsals from people in the same section, but unlike other ordinary organizations, seeking and giving advice is not a top-down process, but a kind of lateral communication about how to play instruments. Finally, they evaluate their performance by discussing internally and having opinions from the external audience. The number of audiences is one criterion for performance evaluation. They argue that music making is not a creative work, but recreation activity by interpreting conductor's ideas which leads to individuals' satisfaction and happy orchestra life.

Second, HAPPY Orchestra has established four years ago. One central figure leads the orchestra who shows strong commitment and is dedicated to the orchestra. Like other orchestras, there are two distinctive leadership tasks. In other words, the conductor takes artistic leadership, whereas current chairman takes administrative leadership roles. People are highly satisfied, motivated and dedicated because they joined this orchestra to enjoy music making with other people. In other words, this orchestra's members exhibit high levels of motivation and persistence and are passionate about music. Unlike members of the professional orchestra, however, they are less skilled individuals. Unlike other professional orchestras and Seoul Citizen Orchestra, musical talent is not important but personality is extremely critical to be a member when they recruit members. In terms of orchestra issues, there are seemingly no conflicts so far, but financial issues (e.g., sufficient budget for operation) and management issues (e.g., selection of musician) definitely exist. In addition, there might be conflicts about planning concert (selection of repertoire).

According to interviews, there are frequent communications through phone calls

or text even though they meet once a week for rehearsals. They also have a chance to communicate and interact with each other through participation in ‘improvement concerts.’ Besides phone calls and participation in ‘improvement concerts’, they frequently sought for advice about music from someone who has musical talent and experience. Overall, it seems that they are highly satisfied because they do what they love. They also agree that music making is not a creative work, but recreation activity by interpreting conductor’s ideas.

A Professional Symphony Orchestra. Finally, Yong-In Philharmonic Orchestra is a professional symphony orchestra. This orchestra also has one dedicated leader (i.e., the current chairman). The conductor takes artistic leadership roles, while the chairman takes administrative roles. Unlike amateur orchestras, they are professional musicians who majored and studied music for a long time. When they recruit musicians, therefore, musical talent is top criteria to select musicians. Many interviews agree that there are seemingly no conflicts so far, but the biggest concern is a financial problem because they do not earn sufficient money because they do perform only a couple of concerts with a small amount of profit. Because of these problems, they tend to join other music-related activities for a living.

Like other normal orchestras, they tend to hang out together with people who play the same instruments. Even though they exchange their opinions about music, but it is not a kind of advice. It is just communications about music because they are all professionals in terms of music.

Sample and Procedure

This study involves two distinct phases. The first phase involves interviews with members including formal leaders to understand their social networks and leadership perceptions. The second phase involves a survey administered to team members to gather information on their social networks along with their leadership perceptions, individual difference, and performance.

Interview Procedure

I gained access to each organization through an interview with the conductor of two amateur orchestras and the managing director of a professional orchestra. Prior to the interview, leaders for each orchestra are given an overview of the research project. Once an orchestra agrees to participate in the research, interviews were conducted. I conducted interviews and engaged in informal conversations with both players and principals in an orchestra.

First, I used open-ended interviews with informants to gain insights into their social networks and leadership perceptions. Because the goal was to gain a fundamental understanding of the setting, I began by asking broad, open-ended questions such as "Can you tell me about what you do as a player?" As each interview progressed, I asked for clarification on certain points or terms (e.g., "Could you tell me what you mean by the word 'leadership?").

Second, after open-ended interviews, semi-structured interviews were conducted. I created an interview protocol aimed at eliciting their ideas on informal leadership, social networks, and outcomes. Interviews with members of the orchestra

were organized into four sections: general information about orchestras, leadership, potential issues, social relationships, and performance (see table 4.1). I conducted interviews with each orchestra member, with each interview ranging from 30 minutes to 45 minutes in length. In total, I conducted 16 formal interviews (six for Seoul Citizen Orchestra, 4 for HAPPY Orchestra and 6 for Yong-In Philharmonic Orchestra). In each orchestra, I interviewed the key informants including the conductor, a couple of principals, concertmasters, and ordinary players. I also conductor a couple of follow-up interviews with key informants (two with the conductor of Seoul Citizen Orchestra, two with the managing director of Yong-In Philharmonic Orchestra) to clarify and validate their prior comments and to allow them to check the accuracy of my interpretation. I repeatedly stressed the confidentiality of the interview data.

Based on 16 interviews, I could identify important variables for members to emerge as a leader in this context such as coordination skills, interpersonal skills, artistic excellence, experience in orchestra, and respect.

Table 4.1: Topics and Semi-structured Interview Questions

General Opinions	How would you characterize the functioning of this orchestra? - Is it a well-functioning orchestra? Could you tell me why you think so? - Could you provide some examples or your own experience for this?
Potential Issues	What major problems and issues do you see here? - How commonly do you see conflict expressed over issues that have to do with the management of the orchestra? How is this conflict expressed? Can you provide an example or two?

Leadership	- How commonly do you see a conflict of a more interpersonal nature? How is this conflict expressed? Can you provide an example or two? What are the leadership tasks that confront the orchestra? - Who takes on these tasks? Could you describe how these people fulfill these tasks? Can you provide an example or two? In any organization, there can be both formally appointed leaders, and people who emerge as leaders even though they are not formally appointed as leaders. Please think about informal leaders in your orchestra. - In this orchestra, would you be able to readily identify the informal leaders? - What is it about these people that, in your opinion, marks them out as leaders? If possible, could you tell me about their relationship with people in the orchestra?
Networks	In any organization, people develop informal relations with some people. For example, some people turn to specific others for advice about how to accomplish their work. - What kinds of informal relations do people tend to develop in this orchestra? How common is close friendship among players? What about informal advice giving? What form does that take? Can you provide some examples? - How important are informal relationships for your own ability to perform well and to your attitudes or behaviors such as satisfaction with the orchestra? Can you provide an example or two? - Are there subgroups or cliques in the organization? What is the basis of these informal subgroupings?
Performance/Creativity	Does the orchestra have a system in place currently for evaluating the performance of players (e.g., performance feedback) and the orchestra as a whole? - What is that system? Could you tell me how it works? - How does your orchestra evaluate people's performance (quantitative or qualitative)?

Survey Procedure

I collected data from three adult orchestras in Korea. All members of each orchestra were invited to participate in a survey for the main study. I visited the orchestras during rehearsals and asked members to complete the survey. It is important to note that data collection should be conducted during rehearsals because all musicians are required not to miss the rehearsals. I collected data on friendship networks, leadership perceptions, and Nunchi perceptions. All members completed the survey on social networks and leadership.

First, for Seoul Citizen Orchestra, of 52 orchestra members, all members (100% response rate) completed the questionnaire. The average age of respondents was 38.74. Of the respondents, 33% were male and 67% were female. Turnover rate is approximately 10% per year. In terms of role, 75% were non-leader members without any administrative positions or music related positions, 9.6% were section principals or vice principals, 7.7% were chair group, and finally, 7.7% were administrative group respectively. Of these positions, chair group and administrative group members were responsible for overall management of the orchestra.

Second, for HAPPY Orchestra, of 30 orchestra members, 28 members (93% response rate) completed the questionnaire. The average age of respondents was 42.18. Of the respondents, 36% were male and 64% were female. Turnover rate is approximately 15% per year. In terms of role, 53% were non-leader members without any administrative positions or music related positions, 18% were section principals, 18% were chair group, and finally 11% were administrative group respectively. Of these positions, chair group and administrative group members were responsible for overall

management of the orchestra.

Finally, for Yong-In Philharmonic Orchestra, of 45 orchestra members, 37 (82% response rate) completed the questionnaire. The average age of respondents was 36.97. Of the respondents, 27% were male and 73% were female. Turnover rate is approximately 5% per year. In terms of role, 57% were non-leader members without any administrative positions or music related leadership positions, 30% were section principals, 8% were chair group, and finally, 5% were administrative group respectively. Of these positions, chair group and administrative group members were responsible for overall management of the orchestra.

Measures

Friendship network. As I asked for the pilot study, I used the same question to identify informal socializing ties (Oh, Chung, & Labianca, 2004). Each respondent was asked to nominate the individuals with whom they like to spend their free time, people they have been with most often for social activities, such as going out to informal lunch, dinner, or drinks, attending concerts or other public performance. I constructed matrices that represented all of the informal socializing relationships among members of each orchestra.

Dependent Variable

Leadership emergence. For the main study, I also used the roster method to collect data on leadership perceptions with two different measures in each of the three orchestras. First, as I did in the pilot study, I asked respondents to look at a list of

employees' names and place a check next to the names of "…the individual at this orchestra whom you most respect for the ability to deal effectively with people."

Second, consistent with the theoretical conception of leadership as a phenomenological construct (Mehra et al., 2006), I used a different measure to identify someone who is perceived as such by others. I asked each respondent of three orchestras to look down a list of names of employees and check next to the name of the individuals whom they perceived to be leaders. I explained that individuals perceived as leaders "may or may not be officially elected as leaders by management or members." The questionnaire did not specify what I meant by the term "leader" to capture respondents' implicit theories of leadership (cf. Lord & Maher, 1991).

I assessed the extent to which members perceived others to be leaders by counting the number of times each member was nominated as a respectful person (i.e., respect relations) or an informal leader (i.e., informal leadership) by other members in the orchestra. Technically, these leadership measures were computed using the in-degree centrality routine in UCINET 6 for both respect relations and informal leadership perceptions.

Independent Variables

Gatekeeper Brokerage (Role and Section). I also used Gould and Fernandez's (1989) gatekeeper measure used in the pilot study. These orchestras have four different roles: chair group, administrative group, principals, and members. In addition, there are eight sections in these orchestras: conductor and concertmaster, first violin, second violin, viola, cello, double bass, wind, and brass.

Moderators

Nunchi. To measure the level of Nunchi for each individual, I asked the respondents to look at a list of employees' names and place a check next to the names of "…individuals whom you think have an especially good Nunchi." Nunchi is defined as an ability to evaluate social situations and understand others' intentions and emotions through implicit cues (Kim, Kim, & Kelly, 2006). I assessed the level of Nunchi by counting the number of times each member was nominated as a person with a Nunchi by others in the orchestra. To calculate individuals' Nunchi, I computed indegree centrality of Nunchi relations using the in-degree centrality routine in UCINET 6

Control Variables.

Individual difference variables related to age, gender, and tenure within the orchestra were used as controls. Gender was a dichotomous self-report measure (females were coded as a 1 and males were coded as a 0). In addition, tenure is the number of years the individual had been in the orchestra. I also considered additional variables as potential controls. First, I controlled the role each individual plays in the orchestra because individuals playing a higher role, like other ordinary business organizations, are likely to garner influence on the basis of their reward power (French & Raven, 1959). There are four different roles. The role was coded as 1 for "chair group", 2 for "administrative group", 3 for "section principals and vice principals", 4 for "members" Second, I also used the orchestra as a control variable. Thus, the orchestra was coded as 1 for "Seoul Citizen Orchestra", 2 for "HAPPY Orchestra", and 3 for "Yong-In

Philharmonic Orchestra" Finally, I also controlled betweenness centrality.

Analyses

In most of my analyses, the dependent variables (respect relations and informal leadership) are count variables (e.g., the number of leadership nominations received by others). In these cases, Poisson-based regression models are more appropriate than OLS regression. However, our data showed clear evidence of over-dispersion (e.g., after fitting the ordinary Poisson regression model, the Pearson Chi-Square goodness of fit statistic divided by degrees of freedom was much larger than 1). Therefore, I used the negative binomial model, which is a generalization of a Poisson model that accounts for the over-dispersion (cf. Barron, 1992).

CHAPTER 5: RESULTS

Summary of Results

The summary of findings was presented in table 5.1.

Table 5.1: Summary of Findings

Hypotheses	Results
Hypothesis 1. Individuals brokering between roles – gatekeeper brokerage (role) - are more likely to be perceived as leaders by organizational members.	• Pilot Study (supported) (p<.01) • Main Study (respect relations) (supported) (p<.05) • Main Study (informal leadership) (supported) (p<.01)
Hypothesis 2. Individuals brokering between sections – gatekeeper brokerage (section) - are more likely to be perceived as leaders by organizational members.	• Pilot Study (marginally supported) (p<.1) • Main Study (respect relations) (not supported) • Main Study (informal leadership) (marginally supported) (p<.1)
Hypothesis 3. Nunchi will moderate the relationship between gatekeeper brokerage (roles) and leadership emergence such that the association will be stronger among individuals with high Nunchi compared with individuals with low Nunchi.	• Main Study (respect relations) (marginally supported) (p<.1) • Main Study (informal leadership) (marginally supported) (p<.1)
Hypothesis 4. Nunchi will moderate the relationship between gatekeeper brokerage (sections) and leadership emergence such that the association will be stronger among individuals with high Nunchi compared with individuals with low Nunchi.	Not supported

Pilot Study

Table 5.2 presents means, standard deviations, and zero-order correlations.

Table 5.2: Descriptive Statistics for Pilot Study

Means, Standard Deviation, and Correlations										
Variable	Mean	S. D.	1	2	3	4	5	6	7	8
1.Gender	0.68	0.47	1							
2.Major	1.85	0.36	-0.19	1						
3.Tenure	1.68	1.01	-0.3*	-0.18	1					
4.Age	20.54	2.30	-0.44**	-0.17	0.83**	1				
5.Betweenness Centrality	65.93	109.33	-0.12	0.15	-0.07	-0.06	1			
6.Gatekeeper (Role)	0.61	1.43	-0.14	0.12	-0.09	0.008	0.57**	1		
7.Gatekeeper (Section)	0.78	1.66	-0.1	0.11	-0.17	-0.004	0.51**	0.84**	1	
8.Respect Relations	2.29	4.72	0.11	-0.19	0.4**	0.2	0.28*	0.28*	0.14	1

+ p<.1, * p<.05, ** p<.01, *** p<.001; two-tailed test

The Main Effects of Gatekeeper Brokerage

In the pilot study, I tested hypothesis 1 and 2 with one leadership perceptions measure because I did not collect the data about individual difference. Overall, gatekeeper brokerage (role) and gatekeeper brokerage (section) were positively associated with leadership emergence after controlling for betweenness centrality.

Gatekeeper Brokerage (Role). Hypothesis 1 predicted that individuals brokering between roles are more likely to emerge as leaders in the organization. The results of the negative binomial regressions presented in table 5.3 show support for this hypothesis. Controlling for gender, major, tenure, and age, the results indicate that the gatekeeper brokerage (role) significantly predicted the extent to which the brokering individual was perceived as a leader.

As shown in models 2 of table 5.3, gatekeeper brokerage (role) was significantly related to leadership perceptions measured by indegree centrality of respect relations ($p < .001$). In the models, adding gatekeeper brokerage (role) to the regression significantly improved overall model fit, as indicated by the results of the likelihood ratio test.

Then, I checked to see if the relationship between gatekeeper brokerage (role) and leadership nominations would be significant after controlling for betweenness centrality. I included betweenness centrality as a control variable because betweenness centrality should be positively related to leadership perceptions. The results presented in model 5 of table 5.3 show that the relation between gatekeeper brokerage (role) and leadership nominations remained significant even after controlling for betweenness centrality ($p < .01$).

The results suggest that individuals brokering between roles (i.e., gatekeeper brokerage (role)) are more likely to emerge as leaders, and this was not just because they are brokering others in the orchestra. The reason that they were nominated as a leader was that they are brokering between roles.

Gatekeeper Brokerage (Section). Hypothesis 2 anticipated that individuals occupying gatekeeper position between sections are more likely to emerge as leaders. The results of the negative binomial regression analysis presented in table 5.3 marginally support this hypothesis after controlling for betweenness centrality.

As shown in models 3 of table 5.3, gatekeeper brokerage (section) was significantly associated with leadership nominations ($p < .01$). I also checked to see if the relationship between gatekeeper brokerage (section) and leadership nominations would remain significant after controlling for betweenness centrality. The results presented in

model 6 of table 5.3 show that the relation between gatekeeper brokerage (section) and leadership nominations became marginally significant after controlling for betweenness centrality ($p < .1$). These results suggest partial support for hypothesis 3.

Table 5.3: Results for Hypotheses 1 and 2 for Pilot Study

Results of Negative Binomial Regression Predicting Respect Relations (N=59)						
Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gender	-1.12*	-0.76	-0.54	-1.44**	-1.04+	-1.09*
	(0.46)	(0.51)	(0.5)	(0.53)	(0.55)	(0.54)
Major	0.43	1.51**	1.26*	0.8+	1.37*	1.11*
	(0.46)	(0.54)	(0.53)	(0.48)	(0.54)	(0.52)
Tenure	1.9***	2.51***	2.46***	1.92***	2.38***	2.22***
	(0.4)	(0.45)	(0.44)	(0.38)	(0.44)	(0.43)
Age	-0.31+	-0.6**	-0.59**	-0.3+	-0.52**	-0.45*
	(0.18)	(0.19)	(0.19)	(0.16)	(0.19)	(0.19)
Gatekeeper (Role)		0.61***			0.48**	
		(0.14)			(0.17)	
Gatekeeper (Section)			0.44**			0.25+
			(0.13)			(0.14)
Betweenness centrality				0.01***	0	0.01*
				(0)	(0)	(0)
Pearson Chi square	118.65	58.08	73.99	80.87	58.39	65.51
Log Likelihood	-93.34	-80.50	-85.86	-84.21	-79.74	-82.60
Likelihood ratio test	51.68***	77.35***	66.64***	69.94***	78.88***	73.15***

+p<.1,*p<.05, **p<.01, ***p<0.001

*Entries are represent parameter estimates, standard errors are in parentheses.

The intercept and dispersion parameters were included in the negative binomial regression models but are not reported here.

Main Study

In the main study, I replicated the pilot study by examining the relationship between gatekeeper brokerage and leadership emergence using same leadership measure (i.e., respect relations). I also extended the pilot study by exploring whether gatekeeper

brokerage (role and section) is positively associated with leadership emergence with different samples and different leadership measure (informal leadership). Means, standard deviations, and zero-order correlations are reported in Table 5.4.

Table 5.4: Descriptive Statistics for Main Study

Means, Standard Deviation, and Correlations													
	Mean	S. D.	1	2	3	4	5	6	7	8	9	10	11
1.Gender	0.68	0.47	1										
2.Orchestra	1.87	0.87	0.05	1									
3.Role	3.36	1.00	0.23*	-0.09	1								
4.Tenure	5.05	4.56	-0.05	-0.14	-0.18*	1							
5.Age	39.07	9.22	-0.28**	-0.06	-0.29**	0.44**	1						
6.Betweenness Centrality	14.37	40.47	-0.18*	-0.34**	-0.26**	0.28**	0.1	1					
7.Gatekeeper (Role)	0.68	1.85	-0.23*	-0.29**	-0.27**	0.29**	0.12	0.62**	1				
8.Gatekeeper (Section)	0.84	2.69	-0.19*	-0.25**	-0.31**	0.22*	0.08	0.71**	0.83**	1			
9.Respect Relations	2.50	4.90	-0.3**	-0.23*	-0.64**	0.34**	0.39**	0.43**	0.57**	0.45**	1		
10.Informal Leadership	3.25	6.66	-0.27**	-0.17	-0.69**	0.33**	0.33**	0.47**	0.56**	0.44**	0.91**	1	
11.Nunchi	3.25	4.28	-0.17	-0.38**	-0.56**	0.33**	0.2*	0.46**	0.49**	0.39**	0.8**	0.82**	1

+ p<.1, * p<.05, ** p<.01, *** p<.001; two-tailed test

The Main Effects of Gatekeeper Brokerage

The first set of hypotheses examines the relationship between gatekeeper brokerage and leadership emergence. This section reports results on hypotheses 1 and 2. Six separate hierarchical models are included for these set of hypotheses: 1) model 1 with control variables only; 2) model 2 and 3 including gatekeeper brokerage (role) and gatekeeper brokerage (section); 3) model 4 including betweenness centrality; 4) model 5 and 6 including betweenness centrality and gatekeeper brokerage (role and section) respectively.

Gatekeeper Brokerage (Role). Hypothesis 1 predicted individuals brokering between roles are more likely to emerge as leaders in the orchestra. First, I examined the effect of gatekeeper brokerage on leadership measured by respect relations. The results of the negative binomial regressions presented in model 2 of table 5.5 show support for this hypothesis. Controlling for gender, orchestra, role, tenure, and age, the results indicate that the gatekeeper brokerage (role) predicted higher leadership nominations measured by indegree centrality of respect relations. We can see that adding gatekeeper brokerage (role) to the regression significantly improved overall model fit relative to the control only model 1 (χ=137.366, $p < .05$)

I also checked to see if the relationship between gatekeeper brokerage (role) and leadership nominations would be significant after controlling for betweenness centrality of friendship network. Thus, betweenness centrality was included betweenness centrality as a control variable in the model 5. The results show that the relation between gatekeeper brokerage (role) and leadership nominations remained significant even after controlling for betweenness centrality ($p < .05$). This result is consistent with the results of the pilot study.

Second, I tested the effect of gatekeeper brokerage (role) on leadership with second measure (i.e., informal leadership). As the results of negative binomial regressions presented in table 5.6 show, gatekeeper brokerage (role) was positively related to informal leadership ($p < .01$ in the model 2). In addition, gatekeeper brokerage (role) remained positively related to leadership emergence, supporting hypothesis 1 even after controlling for the effects of betweenness centrality ($p < .01$ in the model 5).

Gatekeeper Brokerage (Section). Hypothesis 2 predicted that individuals

brokering between sections are more likely to emerge as leaders in the orchestra. First, for respect relations, as presented in the model 3 and 6 of table 5.5, this hypothesis was not supported. Controlling for gender, orchestra, role, tenure, betweenness centrality, and age, the results indicate that gatekeeper brokerage (section) was not related to leadership emergence measured by indegree centrality of respect relations. This result shows that whereas individuals brokering between roles are likely to emerge as leaders, individuals brokering between sections were not seen as leaders in the orchestra.

Second, hypothesis 2 also predicted that individuals brokering between sections are positively associated with leadership emergence measured by different leadership measure (informal leadership). As shown in table 5.6 (in the model 3 and 6), the hypothesized relationship between gatekeeper brokerage (section) and informal leadership was marginally significant after controlling for gender, orchestra, role, tenure, age, and betweenness centrality ($p<.1$).

Table 5.5: Results for Hypotheses 1 and 2 (Respect Relations as a DV)

Results of Negative Binomial Regression Predicting Respect Relations (N=117)						
Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gender	-0.06	-0.24	-0.19	-0.09	-0.22	-0.18
	(0.3)	(0.32)	(0.32)	(0.31)	(0.32)	(0.32)
Orchestra=1	2.24***	1.96***	2.04***	2.17***	2.09***	2.15***
	(0.43)	(0.44)	(0.44)	(0.47)	(0.47)	(0.47)
Orchestra=2	1.38**	1.37**	1.39**	1.37**	1.4**	1.43**
	(0.45)	(0.44)	(0.44)	(0.45)	(0.45)	(0.45)
Role=1	2.61***	2.52***	2.51***	2.58***	2.61***	2.54***
	(0.41)	(0.42)	(0.42)	(0.42)	(0.44)	(0.43)
Role=2	1.67***	1.2*	1.19*	1.61**	1.21*	1.16*
	(0.46)	(0.51)	(0.55)	(0.49)	(0.51)	(0.44)
Role=3	1.6***	1.45***	1.48***	1.53***	1.59***	1.6***
	(0.39)	(0.4)	(0.4)	(0.44)	(0.43)	(0.44)
Tenure	0.04	0.03	0.04	0.04	0.03	0.04
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Age	0.05**	0.05**	0.05**	0.05**	0.05**	0.05**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Gatekeeper (Role)		0.13*			0.18*	
		(0.07)			(0.08)	
Gatekeeper (Section)			0.07			0.1
			(0.05)			(0.07)
Betweenness centrality				0	0	0
				(0)	(0)	(0)
Pearson Chi square	83.43	74.24	74.84	81.64	75.82	76.38
Log Likelihood	-171.46	-169.48	-170.36	-171.40	-169.04	-170.13
Likelihood ratio test	133.41***	137.37***	135.60***	133.52***	138.25***	136.07***

+p<.1, *p<.05, **p<.01, ***p<0.001

*Entries are represent parameter estimates, standard errors are in parentheses.

The intercept and dispersion parameters were included in the negative binomial regression models but are not reported here.

Table 5.6: Results for Hypotheses 1 and 2 (Informal Leadership as a DV)

Results of Negative Binomial Regression Predicting Informal Leadership (N=117)						
Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gender	0.22	-0.09	0.05	0.16	-0.07	0.06
	(0.3)	(0.32)	(0.32)	(0.31)	(0.32)	(0.32)
Orchestra=1	1.39***	0.88*	1.16**	1.2**	1.02*	1.24**
	(0.38)	(0.41)	(0.4)	(0.44)	(0.44)	(0.44)
Orchestra=2	1.08*	1.05*	1.1**	1.04*	1.1**	1.13**
	(0.42)	(0.41)	(0.42)	(0.42)	(0.42)	(0.43)
Role=1	3.35***	3.18***	3.23***	3.28***	3.29***	3.26***
	(0.4)	(0.4)	(0.4)	(0.4)	(0.42)	(0.41)
Role=2	1.91***	1.23*	1.41**	1.75***	1.26*	1.42**
	(0.46)	(0.5)	(0.51)	(0.49)	(0.51)	(0.51)
Role=3	2.54***	2.35***	2.46***	2.4***	2.5***	2.54***
	(0.37)	(0.38)	(0.37)	(0.41)	(0.41)	(0.42)
Tenure	0.09*	0.08*	0.09*	0.09*	0.08*	0.1*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Age	0.03	0.03	0.03	0.03	0.03	0.03
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Gatekeeper (Role)		0.19**			0.24**	
		(0.07)			(0.08)	
Gatekeeper (Section)			0.08+			0.09+
			(0.04)			(0.06)
Betweenness centrality				0	0	0
				(0)	(0)	(0.01)
Pearson Chi square	141.87	116.87	124.25	133.77	119.18	125.84
Log Likelihood	-174.72	-170.50	-173.10	-174.39	-169.91	-173.02
Likelihood ratio test	176.32***	184.76***	179.55***	176.98***	185.94***	179.70***

+p<.1, *p<.05, **p<.01, ***p<0.001

*Entries are represent parameter estimates, standard errors are in parentheses.

The intercept and dispersion parameters were included in the negative binomial regression models but are not reported here.

The Moderating Effects of Nunchi

The final set of hypotheses examines the moderation effect of Nunchi on the relationship between gatekeeper brokerage and leadership emergence. This section reports results on hypotheses 3-4. Nine separate hierarchical models are included for these set of hypotheses: 1) model 1 with control variables only; 2) model 2 including betweenness centrality; 3) model 3 and 8 including the moderator; 4) model 4 and 7 including independent variable; 5) model 5 and 8 including independent variable and moderation variable; 6) model 6 and 9 including interaction term. To minimize problems of multicollinearity, I centered the predictor variables to create the interaction term and regression statistics (Aiken & West, 1991).

Gatekeeper Brokerage (Role). Hypothesis 3 predicted that Nunchi will moderate the relationship between brokerage between roles and leadership emergence such that the association will be stronger among individuals with high Nunchi compared with individuals with low Nunchi. For respect relations, as shown in model 6 of table 5.7, I found a marginal interactive effect of Nunchi and gatekeeper brokerage (role) on leadership emergence measured by indegree centrality of respect relations ($p<.1$). But, note that the direction of the coefficient of interaction term is negative. To examine the form of this interaction, I plotted this interaction following the procedures described in Aiken and West (1991). The plot of this interaction, presented in Figure 5.1, indicates that the relationship between gatekeeper brokerage (role) and leadership emergence is stronger among individuals with low Nunchi than with high Nunchi. Thus this result is exactly the opposite to the hypothesized relationship in hypothesis 3.

Second, hypothesis 3 also predicted that Nunchi will moderate the relationship between brokerage between roles and leadership emergence measured in a different way (informal leadership) such that the relation will be stronger among individuals with high Nunchi than with low Nunchi. As shown in model 6 of table 5.8, I also found a marginal interactive effect of Nunchi and gatekeeper brokerage (role) on informal leadership ($p<.1$). To examine the form of this interaction, I plotted this interaction. Figure 5.2 shows that the relationship between gatekeeper brokerage (role) and leadership nominations is stronger among individuals with low Nunchi than with high Nunchi. Thus, this result was also the opposite of the hypothesized relationship in hypothesis 3. With respect to hypothesis 3, I discussed this unexpected interaction in the discussion section because it requires different theoretical explanations.

Gatekeeper Brokerage (Section). Hypothesis 4 predicted that Nunchi will moderate the relationship between individuals brokering between sections and leadership emergence. As shown in model 9 of table 5.7 and 5.8, Nunchi did not moderate the relationship between gatekeeper brokerage (section) and leadership emergence. Therefore, hypothesis 4 was not supported.

Table 5.7: Results for Hypotheses 3 and 4 (Respect Relations as a DV)

Results of Negative Binomial Regression Predicting Respect Relations (N=117)									
Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Gender	-0.06	-0.09	-0.13	-0.22	-0.19	-0.19	-0.18	-0.18	-0.13
	(0.3)	(0.31)	(0.33)	(0.32)	(0.34)	(0.35)	(0.32)	(0.33)	(0.34)
Orchestra=1	2.24***	2.17***	1.13*	2.09***	1.14*	1.13*	2.15***	1.1*	1.11*
	(0.43)	(0.47)	(0.51)	(0.47)	(0.51)	(0.53)	(0.47)	(0.51)	(0.52)
Orchestra=2	1.38**	1.37**	0.29	1.4**	0.37	0.33	1.43**	0.36	0.34
	(0.45)	(0.45)	(0.51)	(0.45)	(0.52)	(0.52)	(0.45)	(0.51)	(0.51)
Role=1	2.61***	2.58***	0.95+	2.61***	1.07+	1.04+	2.54***	0.96+	0.9
	(0.41)	(0.42)	(0.56)	(0.44)	(0.59)	(0.59)	(0.43)	(0.56)	(0.57)
Role=2	1.67***	1.61**	0.96+	1.21*	0.81	0.47	1.16*	0.64	0.58
	(0.46)	(0.49)	(0.51)	(0.51)	(0.55)	(0.59)	(0.44)	(0.57)	(0.57)
Role=3	1.6***	1.53***	0.98*	1.59***	0.1*	1.06*	1.6***	0.99*	0.98*
	(0.39)	(0.44)	(0.47)	(0.43)	(0.46)	(0.48)	(0.44)	(0.46)	(0.47)
Tenure	0.04	0.04	-0.03	0.03	-0.02	-0.03	0.04	-0.02	-0.02
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Age	0.05**	0.05**	0.07***	0.05**	0.07***	0.07***	0.05**	0.07***	0.07***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Betweenness centrality		0	0	0	0	0	0	-0.01	-0.01
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Nunchi			0.22***		0.2***	0.23***		0.21***	0.23***
			(0.05)		(0.05)	(0.06)		(0.05)	(0.05)
Gatekeeper (Role)				0.18*	0.06	0.35+			
				(0.08)	(0.09)	(0.19)			
Gatekeeper (Section)							0.1	0.08	0..19
							(0.07)	(0.07)	(0.13)
Nunchi*Gatekeeper (Role)						-0.03+			
						(0.02)			
Nunchi*Gatekeeper (Section)									-0.01
									(0.01)
Pearson Chi square	83.43	81.64	55.14	75.82	54.68	54.24	76.38	54.53	53.60
Log Likelihood	-171.46	-171.40	-161.14	-169.04	-160.89	-159.46	-170.13	-160.92	-160.39
Likelihood ratio test	133.41***	133.52***	154.04***	138.25***	154.55***	157.40***	136.07***	157.03***	158.09***

+p<.1;*p<.05, **p<.01, ***p<0.001

*Entries are represent parameter estimates, standard errors are in parentheses.

The intercept and dispersion parameters were included in the negative binomial regression models but are not reported here.

Table 5.8: Results for Hypotheses 3 and 4 (Informal Leadership as a DV)

Results of Negative Binomial Regression Predicting Informal Leadership (N=117)									
Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Gender	0.22	0.16	0.17	-0.07	0.09	0.08	0.06	0.16	0.18
	(0.3)	(0.31)	(0.33)	(0.32)	(0.34)	(0.35)	(0.32)	(0.33)	(0.34)
Orchestra=1	1.39***	1.2**	0.05	1.02*	0.05	-0.19	1.24**	0.05	-0.02
	(0.38)	(0.44)	(0.5)	(0.44)	(0.5)	(0.52)	(0.44)	(0.49)	(0.51)
Orchestra=2	1.08*	1.04*	-0.04	1.1**	0.09	-0.04	1.13**	0.04	-0.01
	(0.42)	(0.42)	(0.47)	(0.42)	(0.48)	(0.5)	(0.43)	(0.48)	(0.49)
Role=1	3.35***	3.28***	1.45**	3.29***	1.66**	1.49**	3.26***	1.52**	1.45**
	(0.4)	(0.4)	(0.55)	(0.42)	(0.58)	(0.57)	(0.41)	(0.54)	(0.56)
Role=2	1.91***	1.75***	1.48**	1.26*	1.25*	0.99+	1.42**	1.29*	1.31*
	(0.46)	(0.49)	(0.48)	(0.51)	(0.52)	(0.55)	(0.51)	(0.51)	(0.51)
Role=3	2.54***	2.4***	2***	2.5***	2.01***	2.01***	2.54***	2.03***	1.99***
	(0.37)	(0.41)	(0.43)	(0.41)	(0.42)	(0.43)	(0.42)	(0.43)	(0.43)
Tenure	0.09*	0.09*	0.03	0.08*	0.03	0.03	0.1*	0.04	0.03
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Age	0.03	0.03	0.06*	0.03	0.05*	0.06*	0.03	0.06*	0.06*
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Betweenness centrality		0	0	-0.01	0	0	0	-0.01	-0.01
		(0)	(0)	(0)	(0)	(0)	(0.01)	(0.01)	(0.01)
Nunchi			0.23***		0.21***	0.25***		0.23***	0.24***
			(0.05)		(0.05)	(0.06)		(0.05)	(0.05)
Gatekeeper (Role)				0.24**	0.1	0.4+			
				(0.08)	(0.09)	(0.21)			
Gatekeeper (Section)							0.09+	0.07	0.13
							(0.06)	(0.06)	(0.13)
Nunchi*Gatekeeper (Role)						-0.03+			
						(0.02)			
Nunchi*Gatekeeper (Section)									-0.01
									(0.01)
Pearson Chi square	141.87	133.77	80.27	119.18	80.87	80.22	125.84	80.10	80.12
Log Likelihood	-174.72	-174.39	-161.64	-169.91	-161.02	-159.70	-173.02	-161.16	-161.01
Likelihood ratio test	176.32***	176.98***	202.48***	185.94***	203.72***	206.36***	179.70***	206.37***	206.67***

+p<.1,*p<.05, **p<.01, ***p<0.001

*Entries are represent parameter estimates, standard errors are in parentheses.

The intercept and dispersion parameters were included in the negative binomial regression models but are not reported here.

Figure 5.1: Interaction Effect of Nunchi on Respect Relations

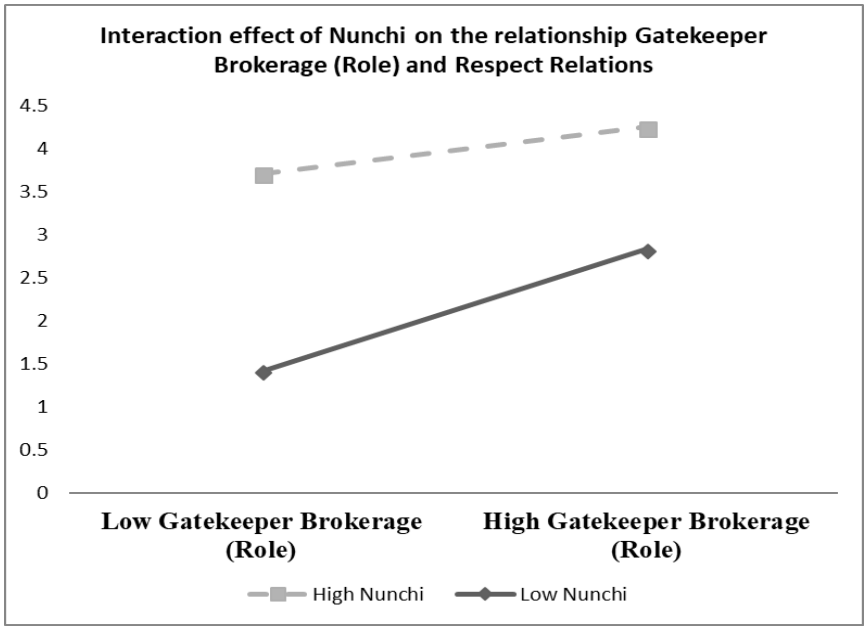
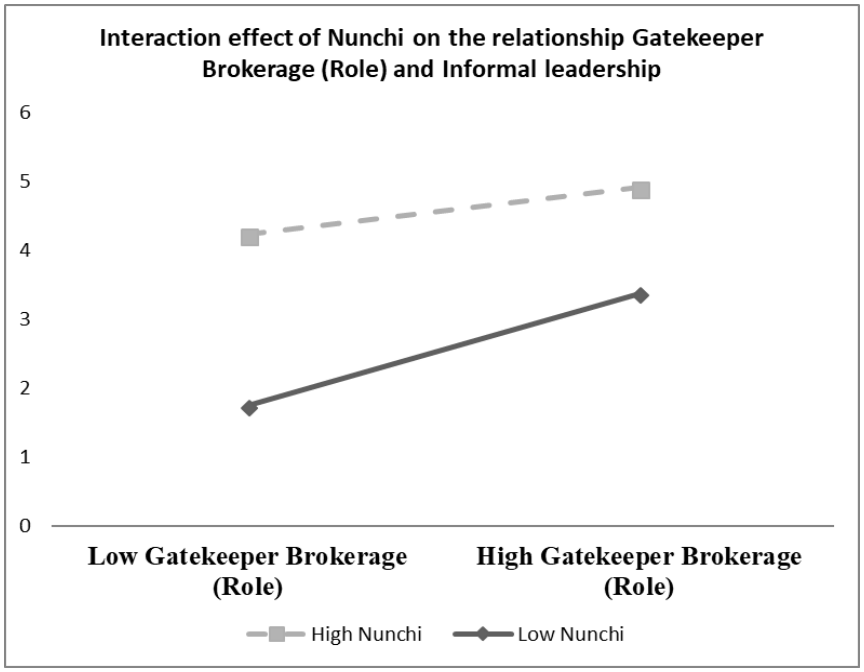


Figure 5.2: Interaction Effect of Nunchi on Informal Leadership



CHAPTER 6: DISCUSSION

This research set out to investigate two primary questions: (1) Do individuals whose friendship networks help them bridge between groups emerge as leaders in the eyes of others? And (2) Are people who are socially perceptive and socially skilled better at leveraging such boundary-spanning positions to win nominations of leadership from others? I investigated these questions four orchestras. I found support for the core idea that people whose friendship networks make them gatekeepers (in the sense that they connect people from two different groups) are more likely to be seen as leaders by others. In a pilot study, I found that the gatekeeping position was positively associated with leadership emergence as measured by conferrals of respect from others. Consistent with these results, the primary study, spanning three other orchestras, shows that individuals brokering between roles (gatekeeper brokerage (role)) are likely to emerge as a respectful person in terms of ability to effectively deal with others. Further, gatekeeper was the antecedent of informal leadership measured by the second measure (i.e., who is the leader in the orchestra?). Overall, individuals brokering between roles are perceived as leaders in the orchestra.

Furthermore, the results of the pilot study show that gatekeeper brokerage (section) (i.e., brokering between sections) is marginally associated with leadership emergence measured by centrality in respect relations. However, the results of the main study show that there was no significant relationship between gatekeeper brokerage (section) and leadership emergence measured by centrality in the respect relations. In addition, the relationship between gatekeeper brokerage (section) and informal leadership was marginally significant. Overall, relative to gatekeeper brokerage (role), gatekeeper

brokerage (section) did not significantly predict leadership emergence.

To better understand why, I conducted follow-up interviews with orchestra members including conductor and concertmaster. According to interviews, although individual quality criteria such as sound and tempo must be so coordinated through synchronized playing (Boerner & Krause 2002), knowledge sharing between different sections would not occur frequently in the orchestra because the skills and knowledge of each section are too specific. For example, string, wind and brass section is quite different in terms of instruments and playing styles. Violin and cello section is also different in terms of instruments and playing style. Therefore, transferring knowledge between sections by occupying a gatekeeper position might not be an effective way to be perceived as a leader. Along with alternative explanations identified through interviews, I suggest theoretical explanations for unsupported results. Extant research has suggested that bridging collaborations may be more important in those contexts where actors are more concerned with acquiring new resources than with preserving their existing resource base (Lin, 2001). One such context is the knowledge-intensive computer industry, in which access to frontline, heterogeneous knowledge and resources is crucial for firms' outcomes and survival (Rowley et al. 2000). However, in the orchestra settings, synthesis of heterogeneous knowledge is much more important for successful performance rather than a transfer of knowledge between sections. Moreover, it would be impossible to transfer knowledge between section because music-related knowledge is highly tacit, complex, or proprietary. Therefore, closed networks might be effective for individuals to be a leader because closed networks will promote the flow of fine-grained information (Hansen, 1999). Therefore, I argue that individuals occupying gatekeeper

brokerage position (section) in which can facilitate transferring section specific knowledge might not work for being a leader.

Second, I examined the moderating role of one individual difference variable – Nunchi. I found the unexpected marginal interactive effects of Nunchi and gatekeeper brokerage (role) on leadership emergence as measured by indegree centrality of respect relations. This result is exactly the opposite to the hypothesized relationship that the relationship between gatekeeper brokerage (role) and leadership emergence such that the association will be stronger among individuals with high Nunchi compared with individuals with low Nunchi. Additionally, I expected that Nunchi will moderate the relationship between gatekeeper brokerage (role) and leadership emergence measured in a different way such that the relation will be stronger among individuals with high Nunchi than with low Nunchi. However, the analysis shows that the relationship between gatekeeper brokerage (role) and leadership nominations is stronger among individuals with low Nunchi than with high Nunchi. This result was also the opposite of the hypothesized relationship.

One explanation for these findings is that the concept of Nunchi in Korea has both positive and negative meanings simultaneously. According to many Koreans, having Nunchi is a double-edged sword. Although the previous research did not examine the dual aspects of Nunchi, a recent study has implication for this unexpected interaction effect. Heo (2014) found that Nunchi was not an important value for building meaningful relationships among Koreans who tended to have more individualistic values. This result indicates the effects of Nunchi on leadership might be highly context dependent. According to follow-up interviews, most musicians in three orchestras seem to have more

individualistic values compared with typical Koreans. Therefore, I argue this is one explanation for this unexpected interaction.

Implications for Theory and Research

By testing the relationship between gatekeeper brokerage and leadership emergence, this study adds to the sparse empirical literature on this topic. This study has several important implications for leadership research.

First, this study underscores the importance of local brokerage for leadership perceptions. Scholars already highlighted why local brokerage is important for performance benefits (Burt, 2007). Burt (2007) found that performance benefits of brokerage were concentrated in the immediate network around a person. He suggested that micro-processes of brokerage involve the mechanisms – trust, affect – involved between close connections. He suggested that "with respect to face-to-face mechanisms, the value of brokerage could be concentrated in direct contacts because successful brokerage requires emotional connection as lubricant, which works best with direct contact" (Burt, 2007: p.143). my study suggests that leadership benefits of brokerage were concentrated in an individual's immediate networks. I argue that this study also suggests that individual agency - in serving as gatekeeper/representative - may matter more than informational and other benefits that passively accrue via global brokerage.

Second, this study provides an insight into leadership emergence in creative organizations. The findings suggest that gatekeeper may be effective for individuals to be a leader in creative contexts such as the orchestra. Focusing on functions of brokerage (e.g., facilitating coordination, collaboration, and information dissemination role), I

theorized that individuals brokering between social groups in the orchestra are likely perceived as leaders because they are able to coordinate actions of different social groups. Even though I did not directly examine the effects of coordination activity on leadership, this study suggested coordination activity by brokers as a mediated mechanism in predicting leadership emergence. In fact, one of my interviewees pointed out the importance of coordination in the orchestra. *"In my opinion, coordination is the key for success in the orchestra. For example, frequent member change in brass and wind section sometimes leads to serious coordination problem inside the orchestra because players usually have unique and different play styles and opinions about music."* A former conductor also admitted that *"it is the challenge to coordinate dozens of sensitive artists, all with fairly considerable egos"* (Talgam, 2015: p.24). In short, this study found that people occupying brokerage position between social groups in the orchestra are likely to be a leader because they are in favorable position to transfer music-related knowledge, general information, and coordinate actions across social groups by occupying brokerage position in a creative context where coordinated actions are critical for success.

Second, the results of this study help move forward our understanding of how brokerage in informal social networks contributes to leadership. Recently, scholars pointed out the importance of structural variation of importance (e.g., Gould & Fernandez Brokerage) for a study on various social and organizational phenomenon (Stovel and Shaw, 2012). Explicitly focusing on variation in the structure of brokerage, a series of research projects have shown the organizational or macro-level consequences of particular forms of brokerage. For example, Friedman and Podolny (1992) analyzed a

labor negotiation, showing that a boundary spanning position can be reconceptualized as a collective unit, with significant functional differentiation inside the collectivity. More recently, Hilman (2008) used a specific form of brokerage to understand state-building efforts in colonial Vermont. However, little research has been done to test the effect of boundary spanning on micro-level consequences such as leadership emergence in creative contexts. Therefore, the findings here have implications for research on leadership emergence in creative organizations because this study shows that a particular form of brokerage (i.e., gatekeeper brokerage) contributes to leadership emergence in creative organizations. I argue that we need to consider a different version of brokerage to better understand how brokerage in informal social networks affects leadership in organizations. For example, building on the idea that each type of G&F brokerage role is associated with a particular configuration of information flow and points to the limits of the broker's capacity to effectively facilitate interaction, we can investigate differential effects of each type of brokerage. For example, Fernandez and Gould (1994) show that power differentials or 'status gaps' influence knowledge brokering, with more powerful stakeholders able to enact the full range of knowledge-brokering roles beyond their group affiliation. This suggests liaison and consultant knowledge-brokering roles may prove more difficult to enact, particularly where framed by power differentials. Therefore, individuals occupying liaison position exert great power over others, resulting in leadership emergence in a specific context.

Third, this study provides evidence that brokering specific others in subgroups (i.e., gatekeeper brokerage) contributes to leadership emergence, rather than simply connecting unconnected others (as indicated by betweenness centrality). Although

previous works provided evidence linking brokerage and leadership emergence (Neubert, M. J., & Taggar, S., 2004; Mehra et al., 2006), there has been little subsequent empirical work on the relationship between G&F brokerage role and leadership emergence. Focusing on the possibility that individuals in specific social networks can be differentiated with respect to activities or interests, I argued that previous research did not clarify why individuals' network position influences the possibility that people emerge as a leader. The findings of this study reveal that brokerage is not simply a matter of brokering anyone in the network but it also matters whether or not individuals broker people in different social groups (Gould & Fernandez, 1989).

Fourth, this study is the first attempt to generate new directions in the leadership of the orchestra by integrating orchestra research with creative leadership and a social network approach. Despite a considerable amount of studies on symphony orchestras (Marotto et al., 2007), the research on conductors' leadership and informal leadership in the orchestra is rather limited. For example, there are a few comprehensive attempts to explore in detail the nature of the leadership process in orchestras (Atik, 1994) and some early studies on orchestral interaction (Arian, 1971; Faulkner, 1973a; Parasuraman & Nachman, 1987). Arguing that multiple leaders contribute to the collective creativity of the orchestra, this study extended the small amount of previous research on the orchestra. Specifically, this study enhanced the understanding of conductors, as leaders, and musicians, as creative organization members by identifying how individual musicians emerge as leaders in the orchestra. This study contributes to the literature of the orchestra because it is the first attempt to investigate the relationship between social structure and leadership emergence in the orchestra.

Finally, this study has implications for the contextualized view of social capital theory (Burt, 1997; Xiao & Tsui, 2007). According to this view, positive effects of brokerage may not be realized under all conditions. As business environments become globalized, it is needed to explore how cultural contexts are related to social networks, and thus influence performance. Responding to this call for an inquiry, scholars have become interested in exploring whether the previous research findings conducted in Western contexts would be confirmed in other cultural contexts such as Asian cultural contexts. For example, Xiao and Tsui (2007) found the detrimental effects of structural holes on an individual's career success in a collectivistic culture. In addition, Bian (1997) also found that strong ties characterized by trust and obligation are more effective than weak ties to acquire jobs. These results imply that cultural contexts would be an important contingent factor to better understand the effects of social structures on individuals, groups and organizations. However, my study shows that even in the collectivistic countries brokering between group boundaries is beneficial to individuals in organizations. This is in stark contrast to the results of studies using Chinese organizations (Xiao & Tsui, 2007). Explaining their surprising results, Xiao and Tsui (2007) argue that "collectivism at the national level and collectivism at the organization level are actually two different phenomena….and we must be cautious about an important difference between collectivism at the national level and collectivism at the organizational level." (p. 24). My study sheds light on the importance of this difference to explain the returns of brokerage to individual actors. Although we can argue that brokers are less likely to be trustworthy as a leader in a certain context, they are perceived as a leader in other contexts like the orchestra. For example, orchestras in my study comprised

of highly motivated people with diverse professions. As highly creative people, they are highly autonomous, professional, motivated, and critical as compared to people in different organizations. The interview revealed that they show a highly individualistic tendency and make the orchestra an individualistic organization. One musician said, *"Actually, each musician has a very strong ego because they are professionals when they are away from orchestra performance. Therefore, it is the challenge to coordinate dozens of sensitive and egoistic artists."* It seems very paradoxical because highly individualist people perform together to achieve collective goals through highly coordinated and synchronized ensemble simultaneously. Drawing from the contextualized view of return of brokerage, I argue that even in collectivistic country brokerage contributes to positive individual outcomes such as leadership emergence. More interestingly, we can explain my unexpected findings of Nunchi effects on leadership emergence. In Korea as one of the highly collectivistic country, Nunchi should be positive to individuals' social life. However, recently Heo (2014a) found that Nunchi was not an important value for building meaningful relationships among Koreans who tended to have more individualistic values. This result indicates that Nunchi may not work in the orchestra context where more people consider individualistic values important. In conclusion, my study shows brokering between social groups might be a strong contributor to individuals in specific organizations in the collectivistic country.

Limitations and Future Research

First, an obvious limitation derives from its cross-sectional research design, which makes it difficult to draw definitive causal connections between gatekeeper and

leadership emergence. Individual's structural positions may influence leadership emergence, but leadership networks may also influence the individual's social networks (see Carter et al., 2015). In addition, I argue that the cross-sectional design does not capture the dynamic nature of brokerage processes in creative organizations. Recently, scholars revisited the concept of brokerage in social networks by emphasizing the dynamic aspect of brokerage and suggesting a framework for measuring brokerage opportunities in dynamic relational data (Spiro et al., 2013). Scholars also distinguish between brokerage emphasizing a particular structural pattern ("brokerage structure") and the social behavior of third parties ("brokerage process") (Obsfeld & Borgatti, 2014). Thus, future research using a longitudinal design would allow for stronger statements about the direction of causality and for capturing the dynamic nature of brokerage.

Second, this study did not consider the possibility that brokers are less likely to be perceived as a leader because they negatively influence collective outcomes by creating conflict within the team or organization. Even though brokerage might be beneficial to the broker personally, this benefit may not necessarily help increase the performance of broker's team (cf. Ansell, 2007). One case study (Cross & Parker, 2004) illustrated how a broker who spanned disconnected subgroups within a team was overwhelmed by the coordination task, inhibiting the efficient flow of communication that adversely affected the team. In addition, brokers tend to distort the information they pass on even if it is not their intention to do so (cf. Brass, Butterfield, & Skaggs, 1998). The information distortion that the brokerage position triggers is eventually associated with friction and confusion in the team (Ross, 1989). Thus, the team may suffer as a consequence of information distortion. Building on this idea, scholars found that team

leaders' centrality in team advice network negatively predicts conflict, positively predicts team viability whereas brokerage in team advice network positively predicts conflict, negatively predicts viability (Balkundi, Barsness, & Michael, 2009). Therefore, we need to examine whether brokers in the orchestra predicts conflict in the orchestra, and thus prevent from the orchestra functioning well.

Third, this study did not investigate the effects of gatekeeper on individual and organizational performance. I argue that one avenue for future research is to examine the effects of leadership emergence on outcomes (Carter et al., 2015). We need to answer the questions: Does gatekeeper bring positive outcomes to brokers? How does the structure of leadership affect the individual, group, and organizational Outcomes? Previous research has highlighted brokerage as being beneficial for the individual actors involved (Burt, 2005). Focusing on functions of gatekeepers – searching external knowledge, transcoding it and sharing internally, scholars also emphasized the importance of gatekeepers (e.g., Allen, 1977; Morrison, 2008) for performance. For example, Tushman and Katz (1980) argued that research projects perform better when the project team has access to relevant outside knowledge through a gatekeeper.

Although prior research has shown that brokerage is beneficial for an individual actor, it is unclear if brokerage is beneficial for collective creative outcomes. Previous studies show that shared leadership had important effects on team performance over and above the effects of vertical leadership (Nicolaides, LaPort, Chen, Tomassetti, Weis, Zaccaro, & Cortina, 2014). Moreover, studies show that leadership networks that show a distributed-coordinated structure are associated with higher team performance than traditional leader-centered leadership networks and distributed-fragmented leadership

networks (Mehra et al., 2006). In the creativity literature, there has been recently substantial work on collective creativity that has revealed that creativity occurs through a dialectic negotiation and integration of group members' perspectives (e.g. Hargadon & Bechky, 2006; Harvey, 2014). Specifically, Hargadon and Bechky (2006) suggested that collective creativity represents specific moments when individual members' experiences, perspectives and ideas are brought together to create new solutions to the problem. Interestingly, the number of studies that have simultaneously examined collective leadership and collective creativity is still small.

This study reveals that brokerage may play a pivotal role in predicting leadership in collective creative contexts. I argued that individuals occupying gatekeeper role are perceived as a leader because they have potential to contribute to collective creativity, but I did not examine that brokers actually did contribute to their own performance and organizational performance through occupying the favorable position. Therefore, it would be promising to investigate the effects of leadership structures or individual brokerage on both individual and organizational outcomes in creative organizations.

Fourth, even though this study provides rationale on how individuals brokering between social groups emerge as a leader in the orchestra, I did not measure assumed intermediate variables (i.e., coordination mechanism). Measuring hypothesized mediators (i.e., coordinated action or coordination orientation), we need to investigate the process by which gatekeeper influences leadership emergence to better understand the mechanisms responsible for the observed effects. In fact, recently scholars provide evidence that brokers who show specific behavioral strategies emerge as more successful in a collaborative creative context (Lingo & O'Mahony, 2010). They found that the

music producers who were more successful in promoting collaborative creativity were those who made broader and more timely use of nexus work practices in order to tackle effectively the ambiguity, multiple interests, and tensions inherent in the collaborative creative process.

Finally, a final potential topic for future research that deserves to be mentioned has to do with investigating how different brokerage orientation (Kalish, 2008) may influence the link between the gatekeeper and leadership emergence to more fully understand the relationship between the brokerage and leadership emergence. From a structural perspective, brokers tend to have better ideas and individually benefit from them (Brass, 1985; Burt, 2004). The *Tertius gaudens* (or third who benefits) approach to brokerage employs a strategy of disunion whereby individuals reap benefits from preserving their unique ties to others and maintaining a separation among parties (Burt, 2000). This type of brokerage may enhance individual social capital but can be at odds with the creation of communal social capital (Ibarra, Kilduff, & Tsai, 2005). An alternative conception of brokerage focuses on the benefits that accrue to the collective from connections among parties (Kilduff & Tsai, 2003; Ibarra, Kilduff, & Tsai, 2005). Brokerage in this sense focuses on joining previously unconnected parties to help pursue common goals—the *Tertius iungens* orientation (Obstfeld, 2005).

Scholars argue that the execution of creative ideas requires collaboration (Lingo & O'Mahony, 2010). If creativity is a collective act (Hargadon & Bechky, 2006), then brokers in a collaborative context must not just have a good idea themselves, they must be able to elicit and synthesize the ideas of others to be a leader. Therefore, in the collective creative context, I argue that individuals with the *Tertius iungens* orientation

are likely to emerge as a leader. I suggest that it would be promising to examine the effects of both *Tertius gaudens* and *Tertius iungens* orientation on leadership emergence in creative organizations.

Conclusion

Who emerges as a leader in creative organizations, where boundaries are relatively fluid and the exercise of influence has to be informal and subtle? In this study of symphony orchestras, I found that individuals who occupied gatekeeping positions—i.e., positions where they serve as a bridge between people from one role/group and those from their own— in the informal friendship network emerged as leaders in the eyes of others. Previous research on brokerage and leadership emergence has tended to rely on general measures of brokerage that fail to take individual differences in group membership into account. My findings suggest that brokering across roles and groups, rather than merely brokering between people of the same role/group, is associated with leadership emergence. The fact that these findings come from a high-context culture (Korea) makes them especially noteworthy because some previous research has shown that brokerage can carry reputational penalties in such cultures. The overarching message of this research is that brokerage in social networks is important for leadership emergence in creative organizations but the form that this brokerage takes is a key consideration. Some kinds of brokerage matter more than others when it comes to leadership emergence.

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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: 1-31.

Young, V. M., & Colman, A. M. 1979. Some psychological processes in string quartets. ***Psychology of Music***, 7: 12-18.

VITA

EDUCATION

Ph.D., Business Administration, 2018

Concentration: Management – Organizational Behavior

Gatton College of Business and Economics

University of Kentucky, Lexington, Kentucky

Master of Science in Business Administration, 1996

Yonsei School of Business

Yonsei University, Seoul, Republic of Korea

B.A., Business Administration, 1992

Yonsei University, Seoul, Republic of Korea

RESEARCH INTERESTS

Leadership, Social Networks, Creativity, Innovation, Gender

JOURNAL ARTICLES & ACCEPTANCES

Chun, K. M., **Jun, K. H**., & Lee, H. W. 2017. A Study on the Effect of Leader's Humor Behavior on Employee's Positive and Negative Emotions: Moderating Effect of Leader-Follower Distance. ***Ewha Management Review,*** Vol. 35 (1). 2017)

Park, H. J., Jung, D. I., & Schmidt, B. H. 2013. Woori Financial Group: Becoming a World-Class Organization through OneDo. ***Columbia Case Study Series.*** (As a Research Assistant)

Jun, K. H., & Lee, B. K. 2010. Effects of network centrality on cooperative behavior: mediating role of organizational identification. ***Korean Journal of Industrial and Organizational Psychology,*** Vol. 23(4): 635-666.

Park, H. J., & Schmidt, B. H. 2008. Seoul Philharmonic Orchestra. ***Columbia CaseWorks,*** ID#080509: 1-11. (As a Research Assistant)

WORKING PAPERS

Jun, K. H., & Park, H. J. The effects of the use of humor on affect at work: the moderating role of power distance orientation and abusive supervisory behavior (Manuscript in preparation).

Jun, K. H., Park, S. H., & Park, H. J. Two routes of authentic leadership to follower's attitudes: the role of PSS and POS (Manuscript in preparation).

RESEARCH IN PROGRESS

Jun, K. H., & Mehra, A. Who emerges as a leader in creative self-managing teams? The role of network position (Preliminary analysis in progress).

Jun, K. H., & Mehra, A. The combined effects of transformational leadership and LMX on individual innovation performance: Exploring the intermediate mechanism (Preliminary analysis in progress)

Jun, K. H., Mehra, A., Park, S. H., & Park, H. J. How does authentic leadership affect employee behavior? The mediating role of individual hope. (Preliminary analysis in progress).

Jun, K. H. Exploring psychological mechanism linking abusive supervision to OCB: The role of identification and trust in leader (Preliminary analysis in progress).

Jun, K. H. When authentic leadership is effective: Testing the moderating effects of power distance orientation and procedural justice (Preliminary analysis in progress).

Jun, K. H., & Mehra, A. The multilevel study on the role of leadership and network in enhancing innovation performance: The mediating effect of team climate for innovation (Data collection in preparation).

CONFERENCE PRESENTATIONS AND PROCEEDINGS

Jun, K. H., & Park, H. J. 2015. Does the use of humor strengthen member identification? Annual Meeting of the Academy of Management, Vancouver, Canada.

Jun, K. H., Park, S. H., Park, H. J., & Lee, S. E. 2010. Organizational identification to member's behavior: commitment as mediator and trust as moderator. Annual Meeting of the Academy of Management, Montreal, Canada.

Jun, K. H., Park, S. H., Park, H. J., & Lee, S. E. 2010. Two routes of authentic leadership to hope, turnover intention, and OCB. Annual Meeting of the Academy of Management, Montreal, Canada.

Jun, K. H., & Park, S. H. 2010. The effects of authentic leadership on organizational behavior: the mediating role of identification. Semiannual Meeting of Korean Academy of Management (Spring), Seoul, Republic of Korea.

Jun, K. H., & Lee, B. K. 2010. Social network, cooperative behavior and social identity. Semiannual Meeting of Korean Academy of Management, Seoul, Republic of Korea.

Jun, K. H., & Park, S. H. 2009. The relationships between organizational identification and OCB: mediating effects of affective commitment and OBSE.

Semiannual Meeting of Korean Academic Society of Business Administration (Summer), Gangwondo, Republic of Korea.

Park, H. J., Kim, J., **Jun, K. H**., & Yi, K. S. 1996. Decision-making strategy of high performers in dynamic environments. Paper presented at the First Japan-Korea Joint Symposium on Organization Studies Conference, Tokyo, Japan, Proceedings, 271-321.

Park, H. J., Kim, J., Yi, K. S., **Jun, K. H**., & Moon, J. Y. (1996). Critical Success Factors for Dynamic Decision Making in Business Simulations. Third International Conference of the Asia-Pacific DSI, Hong Kong, Proceedings, 955-963.

Park, H. J., Kim, J., Yi, K. S., & **Jun, K. H**. 1996. Enhancing the performance in dynamic decision making: the adaptive model reconstruction using feedforward vs. feedback decision strategy. Paper presented at the 1996 System Dynamics Conference, July 22-26, Cambridge, MA.

PROFESSIONAL EXPERIENCE

Senior Researcher, 2012. S**ystematization of the *OneDo* innovation of Woori Finance Group**, Seoul, Republic of Korea.

Senior Researcher, 2011. **NSYSCOM (Nonprofit Business & CSR Consulting).** Seoul, Republic of Korea.

Chief Director, 2009. **International Conference on Social Enterprise 2009** (Hosted by KDI, Columbia Business School; Supported by Yonsei Univ., KAIST), Seoul, Republic of Korea.

Managing Director, 1997-2008. **Bucheon Philharmonic Orchestra.** Bucheon, Kyeonggido, Republic of Korea.

Consultant, 1996-1997. **LG Economic Research Institute.** Seoul, Republic of Korea.

Corporal, 1992-1994. **Republic of Korea Army.** Republic of Korea.

FELLOWESHIPS AND RECOGNITION

Gatton Doctoral Fellowship, Gatton College of Business and Economics, 2014-2018

Luckett Fellowship, Gatton College of Business and Economics, 2014, 2016

Max Steckler Fellowship, Gatton College of Business and Economics, 2016, 2017

Research Assistantship, 2011 (Fall) - 2012(Spring). Seoul, presented by Graduate School of Yonsei Universiy.

Internal Scholarship, 2009-2012. Seoul, presented by Graduate School of Yonsei Unversity

Fund Scholarship, 2009-2010. Seoul, presented by Graduate School of Yonsei University

Rotary Scholarship, 2010. Seoul, presented by Rotary Scholarship Foundation

Rotary Scholarship, 2009 (Fall). Seoul, presented by Rotary Scholarship Foundation

Citizen of the Year Award, 2000. Kyeonggi-do, presented by the Kyeonggi-do Governor.

Best Contributor to Culture and Arts of Bucheon City, 2000. Bucheon City, presented by Bucheon City Mayor.

TEACHING INTERESTS

Organizational Behavior, Leadership, Human resource management, Social Networks

TEACHING EXPERIENCE

Lecturer, Gatton College of Business and Economics, Lexington, Kentucky.

Course: *Analysis of Organizational Behavior,* 2017 (Fall), Overall evaluation 4.57 out of 5 / Department average 4.33.

Lecturer, Gatton College of Business and Economics, Lexington, Kentucky.

Course: *Analysis of Organizational Behavior,* 2017 (Spring), Overall evaluation 4.65 out of 5 / Department average 4.45.

Teaching Assistant, Gatton College of Business and Economics, Lexington, Kentucky.

Course: *Analysis of Organizational Behavior,* Prof. Ajay Mehra, 2015 (Spring), 2016 (Fall).

Teaching Assistant, Gatton College of Business and Economics, Lexington, Kentucky.

Course: *Managing Effective Organizations* (MBA), Prof. Ajay Mehra, 2015 (Spring), 2015 (Spring and Fall), 2016 (Spring and Fall).

Teaching Assistant, *Summer LINKS Center Workshop on Social Network Analysis (University of Kentucky),* Prof. Ajay Mehra, Steve Borgatti, Daniel Brass, Daniel

Halgin, and Rich DeJordy, 2014-2018

Lecturer, Seoul Women's University, Seoul, Korea.

Course: *Human Resource Management,* 2011 (Winter), 2012 (Spring), 2012 (Summer), 2013 (Spring), 2014 (Spring), 2016 (Summer), *Labor Relations,* 2013 (Spring)

Lecturer, Yonsei University, Seoul, Korea.

Course: *Organizational Behavior,* 2012 (Summer), 2013 (Spring)

Lecturer, Sahmyook University, Seoul, Korea.

Course: *Organization Theory,* 2012 (Spring), *Human Resource Management,* 2012 (Spring), 2012 (Fall), *Fundamentals of Management,* 2012 (Fall)