Roles of Middle Power in East Asia:
A Korean Perspective

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Knowledge-Net for a Better World

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I. Introduction

In recent years, South Korea has gained attention as a middle power in the diplomatic arena. For example, it played impressive roles in the various diplomatic conferences held in South Korea, such as the G20 Summit in Seoul (2010), High Level Forum on Aid Effectiveness in Busan (2011), Nuclear Security Summit in Seoul (2012), and Seoul Conference on Cyberspace (2013). Behind these increased diplomatic roles lay South Korea's military and economic capabilities which have been achieved in the past several decades. In 2010, South Korea's military budget ranked 12th in the world and its GDP put it in 15th place. Indeed, South Korea has come to be regarded as one of the leading middle powers in world politics. Now, there is a growing consensus that South Korea should play a middle power's role corresponding to its increased material capabilities; it should figure out a new vision of middle power diplomacy in the twenty-first century. In particular, South Korea should realize what kinds of roles are expected of it, and under what structural conditions it can play those roles in effective ways.[1]

The existing studies of middle power are inadequate in providing a guideline for the new roles of South Korea. They mostly look to individual countries' attributes or capabilities to explain the generalized responsibilities of middle powers in world politics. Thus, they fail to explain the proper roles for middle power under certain structural conditions that might be more essential determinants for middle powers' actions than for great powers' actions. In contrast, some theorists in International Relations (IR) adopt an anti-attribute imperative that rejects all attempts to explain actors' actions solely in terms of actors' at-

tributes (Hafner-Burton and Montgomery, 2006; Goddard, 2009; Nexon and Wright, 2007; Nexon, 2009). These IR theorists maintain that it is an actor's "position," not its attributes, that creates opportunities for a country and that how an actor is connected to others influences its diplomatic direction. In this context, a new approach to middle power must consider the structural attributes of a system rather than those of an actor.

Network theories in natural and social sciences complement this positional perspective to middle power's diplomatic strategies in world politics. Network theorists hold that how actors are positioned in a network facilitates their ability to compete or cooperate with others. While certain networks are very dense and stable, others contain fragmentations that allow middle powers to emerge. A particular type of network creates favorable conditions for the so-called *middlepowermanship*. Moreover, network theories help configure conceptual frameworks to understand how some actors compete or cooperate to build stronger ties than others do in a network. In this way, network theories provide IR theorists with an alternative account of middle power, one designed to take both structure and agency seriously. This paper adopts three notions from network theories: "structural holes" and "positional power" from social network theory, and "translation strategies" from actor-network theory (ANT).[2]

Relying on these notions, this paper attempts to develop a theoretical framework to understand the diplomatic strategies of South Korea as a middle power.[3] This paper applies the framework to empirical cases of international politics in Northeast Asia. The cases include the configuration of network structure in the region, the nature of structural holes within the network, and strategic options for South Korea under the structural conditions. In handling these cases, this paper uses network theories to deduce a series of conditions under which South Korea's *middlepowermanship* is more or less likely and the possibilities of positional power held by South Korea. In this sense, the major concern of this paper is theory development rather than empirical analysis.

This paper consists of three sections. In the first section, this paper examines the new concept of structure in network perspective and explores the meaning of position in the network structure. In the second section, it introduces three critical notions — structural holes, positional power, and translation strategies — from network theories to conceptualize structural attributes of networks and the roles of middle powers in a dynamic sense. In the third section, along with providing a theoretical platform for middle power strategies, it briefly presents empirical cases from Northeast Asian regional politics, in which the two Koreas and four great powers — the United States, China, Japan, and Russia — are main players. The conclusion summarizes the opportunities for South Korea's middle power diplomacy and briefly points out some empirical cases that have policy implications.

II. Middle Power in a Network Perspective

The existing studies, which could be called the "attribute-approach," mainly look to actors' attributes to define middle power. For example, where neo-realists would look to military and economic capabilities (i.e., resource power) to explain the category of middle powers, liberal approaches define middle power by its behavioral tendency or intrinsic disposition, which is usually called *middlepowermanship*, to engage in international affairs. The attribute-approach locates a middle power at a middle point in the spectrum between great and small powers in terms of population, economic strength, and military capability. These indicators could be the basic premise for discussing the category of middle power. It is true that South Korea has come to be regarded as a middle power because it has met this standard of middle power attributes (Holbraad, 1984; Cooper, Higgott and Nossal, 1993; Cooper ed. 1997; Ping, 2005).

However, the existing approach that pays attention to actors' attributes or behavioral features is inadequate in conceptualizing middle power in a dynamic sense. In particular, if the concept of middle power is understood in this way, it may be only partially applied to the case of South Korea, which is faced with structural problems due to the rise of China and threats from North Korea. It is useful in delineating potential candidates for middle powers who have a certain amount of material resources, but it fails to explain what kinds of specific roles are necessary to qualify a country as a middle power. In this view, it is not clear under what conditions middle powers are likely to emerge, or why some actors play more effective roles as middle power than others. Indeed, more often than not, international outcomes cannot be reduced to actors' intentions or capabilities. Therefore, to explain a middle power's agency, we need to understand how middle power is defined in terms of structural positions in a system and to explore how an actor's structural position affects its capacity. A middle power's actions are dependent upon the structural attributes of the network in which the country connects to others (Goddard, 2009: p.253).

1. Rethinking Structure: From Distribution to Configuration

In this context, it is useful to reintroduce the concept of "structure" into the discussion of middle power. In existing IR theories, there has been a discussion about "structure" of the international system. Most IR scholars would agree that "structure" refers to durable patterns of interaction. However, they tend to present their ideas in different ways. Many think of international politics as a "system" composed of overarching structures: the condition of anarchy, the distribution of power, sets of regulative and constitutive norms, prima-

ry and secondary institutions, and so forth. This mode of analysis treats, at least implicitly, structures as entities defined by their categorical attributes (Nexon, 2009: p.24).

For example, a neo-realist, Kenneth Waltz, conceptualized structure as a distribution of power among nations in terms of the actors' capabilities (Waltz, 1979). The neorealist concept of structure is useful in revealing the overall outline of material structure in the international system. However, it basically reduces the concept of structure to the level of internal properties or material resources held by nation-states. Thus, neo-realists neglect the relative context of actors' interaction itself when they conceptualize the elements that form the structure of international politics. They understand structure as an entity that is derived from the categorical attributes of actors. For this reason, it has been criticized that it takes too abstract and macro of an approach to properly grasp the dynamics between actors' strategies and the structure of international politics.

For social network theorists, however, it is not actors' interests, capability, or ideology, but the relations among actors that are causally significant. Structure emerges from a "continuing series of transactions to which participants attach shared understandings, memories, forecasts, rights, and obligation" (Tilly, 1998: p.456; Goddard, 2009: p.254). Network is a structural representation of relations among actors (Wellman and Berkowitz, 1988). In this view, structure is understood as the relational configuration among actors or the patterns of transactions themselves. Actors derive many of their attributes from their participation in the ongoing process of social interaction. As they pursue goals, such as resources and status, they reproduce, modify, create, and sever relatively durable material and symbolic exchange relationships. These relatively durable, but fundamentally dynamic interactions constitute the structural context in which actors operate (Nexon, 2009: p.25).

Introducing this relational approach to IR, we can understand the concept of structure as the patterns of dynamic transactions at the level of relationship among actors, without reducing the concept of structure to the level of a unit. In other words, we conceptualize structure, not as a kind of fixed entity reduced to actors' internal properties or attributes, but as a social relationship among, or across, actors. Compared to the neorealist macroscopic concept of structure, this concept in network perspective understands structure at the *meso*-scopic level. The *meso*-scopic concept of structure portrays the dynamics between an actor's choice and structural changes (Nexon and Wright, 2007; Nexon, 2009).

<Figure 1> Arms Transfer Networks in Asia

| 1960 | 2000 |
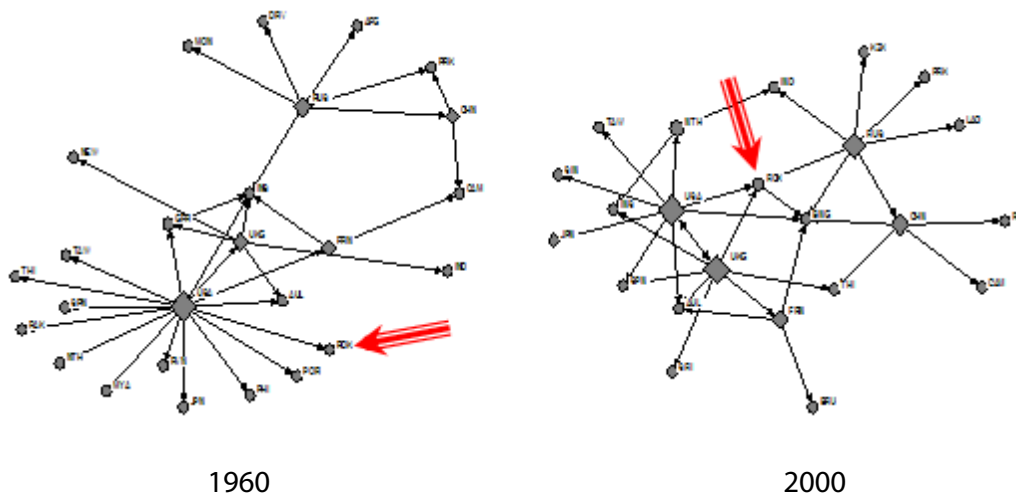
Source: H.M Kim (2010), pp.341-342
(Arrows are added by the author)

This view sees that actors' agency is embedded within networks, and thus presents a new concept of structure, which contributes to the agent-structure debate in IR. In fact, many IR theories conceive of structure as opposed to agency. While structures constrain agency, and thus ensure continuity, agents are responsible for change. To understand *middlepowermanship* as a function of network position might seem bizarre: a middle power's behavior should be a negation, not a manifestation, of structural forces. The network theory here, however, sees agency not as opposed to structure but as inhering within network structures (Goddard, 2009: pp.257-258). In this context, we should conceptualize international structures as networks co-constituted by the network-structures of the actors that populate it, and also by the structure of social ties across and between them (Nexon, 2009: p.26).

Using empirical data, statistical method or various conceptual tools, social network theorists attempt to draw an outline of structure as a form of sociogram. Recently, methodological development in social networks analysis (SNA) has made it possible to visualize the reality of structure in various networks. A lot of examples in IR include networks of membership to international organizations, alliances among state actors, arms transfer networks, international trade networks, cross-national production networks in various industrial sectors, and student exchange networks. Figure 1, an example of networks in IR adopted SNA, shows sociograms of arms transfer networks between twenty five Asian countries between the years of 1960 and 2000.

2. What Matters is Position

Structural analysis through social network theory is useful in capturing the reality and variability of *meso*-scopic structure, which the macroscopic approach neglects. With regard to the main concern of this paper, however, the positional approach is more useful in identifying the role of an actor occupying a specific position in the network. It is not an actor's attributes or interests but its positions that enable an actor's agency. The positional perspective in social network theory holds "that how actors are positioned in a network facilitates their ability to act as entrepreneurs. Because social and cultural ties provide power, information, and ideas, an actor's ability to introduce new norms, manipulate symbols, and radically influence political outcomes, all depends on network position"(Goddard, 2009: p.257).

<Figure 2> Diagram of Different Network Topologies
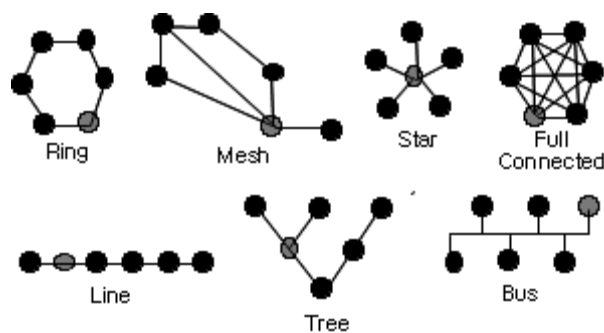
Source: Wikipedia (http://en.wikipedia.org/wiki/Network_topology)
(Grey nodes are colored by the author)

To see the strategic implications of "position" in a network, this paper cites diagrams of different network topologies presented by computer network studies. If the five black nodes seen in Figure 2 build links with each other in different ways, then the composition of the entire network changes. A grey node will be expected to play different roles on different occasions, even if its internal properties are not changed at all. Interestingly, the structural patterns shaped by the six nodes in Figure 2 are reminiscent of the network game played among six countries—the United States, China, Japan, Russia, and the two Koreas—in Northeast Asian regional politics. The diagrams look like tables in the Six-Party Talks of the mid-2000s. If one compares a grey node to South Korea in the table, one can imagine that changes in the composition of other five countries that sit around it in the table will affect how the range of strategies chosen by South Korea varies.

Likewise, in Figure 1, which shows Asian arms transfer networks comparing the years

1960 and 2000, helps understand the strategic implications of "position" in networks. The nodes indicated by the arrows in Figure 1 are the positions occupied by South Korea in the arms transfer network in the respective years. Since South Korea, as a nodal actor, occupies different positions in the networks, its international roles would be different in the two networks. In fact, while South Korea had a link with only the United States in 1960, it had links with Russia and England, as well as with the United States, in 2000. It is easy to imagine that South Korea's strategic options relating to international arms transfers remarkably varied between the two time periods. This discussion about the structure of the arms transfer network and the position of South Korea exemplifies the different strategic orientations of South Korea, which has grown from a developing country in the Cold War era to a middle power in the post-Cold War era.

If the concept of middle power is defined in terms of structural position in a network, what specific roles would a middle power play under a certain network structure? Among the various roles of middle power, this paper pays special attention to the role of "brokerage" in a particular network structure. Indeed, the role of brokerage, which is usually understood as mediation, has been played by great powers rather than middle or small powers. In the age of complex networks, however, depending on how the structure is shaped, small or middle powers are likely to enjoy a certain degree of leeway in playing a brokerage role. In particular, social network theory gives us some analytic insight. The unique forms of cleavages found in a network provide structural opportunities for small or middle powers. Some actors — known as brokers — bridge cleavages within networks. They are positioned as vital nodes in networks, creating links between actors that would otherwise remain unconnected. It is this network position, not an actor's attributes that enables middle powers to exercise a certain kind of power, as described below.

III. Three Notions from Network Theories

To develop a positional approach to middle power, three questions must be answered. First, under what conditions do networks enable a middle power's agency? Are there certain network structures more conducive to a middle power's brokerage action than others? Second, in what context do middle powers have power as brokers? What kinds of roles do middle powers play using their strategic advantages of position? Finally, how do middle powers as brokers build networks? Are there any specific guidelines for middle powers'

networking strategies? In answering these questions, it is important to not be driven by a kind of structural determinism. Networks create conditions for middle powers, but they do not force any particular country to behave as a broker. Therefore, it is also critical to understand how middle powers mobilize their capabilities to play strategic roles of brokerage, even if their actions might be conditioned by a network structure.

1. Structural Holes: Exploring the Configuration of Networks

To explain the structural condition conducive to a broker, this paper looks to the notion of "structural holes." Discussion about structural holes begins with distinguishing two types of networks, as seen in Figure 3. While certain networks are extremely dense and stable, others contain fragmentations that allow structural holes to emerge and thus facilitate brokerage action. Figure 3 illustrates integrated (left) and fragmented (right) networks. The more integrated a network becomes, the fewer structural holes it possesses: most actors have dense connections with other actors within the network (Coleman, 1990). In an integrated network, then, there are few breaks or structural holes. Actors share a dense system of social and cultural relations. The advantages of the integrated networks are well known as the notion of "social capital" (Putnam, 1993).

<Figure 3> Social Capital and Structural Holes in Networks

Integrated Network   Fragmented Network
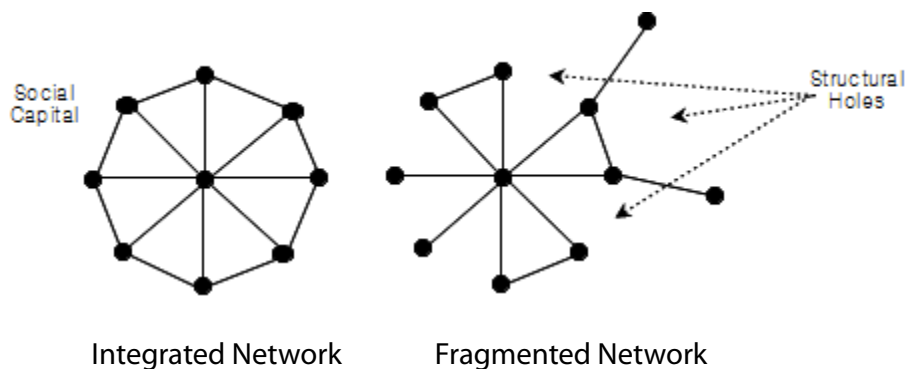
Source: Modified from Goddard (2009), p.259

In contrast, the more fragmented a network becomes, the more structural holes dominate. In this situation, we can identify brokers as critical nodes, bridging the otherwise unconnected elements within a framework. The notion of structural holes, first proposed by Ronald Burt, maintains that actors gain their power through their unique position bridging structural holes in network structures (Burt, 1980; 2001; 2005). These actors — known as brokers — act as

connections between other actors who would otherwise remain disconnected. In order to theorize this notion, Burt developed a number of important network measures of brokerage and generalized them as structural characteristics of networks. This was not the advent of a new theory of social networks; awareness of structural holes is in the same context as Mark Granovetter's discussion about advantages of "weak ties" (Granovetter, 1973).

According to Burt, people who hold brokerage positions enjoy a competitive advantage over others who are less well-placed. When they capture strategic places that connect otherwise disconnected groups, those people can exercise a special kind of power — "positional power" — as described below in detail. It is necessary to keep in mind that actors who are engaged in the network might be aware of the existence of structural holes generated from their exchanges. However, actors do not pay serious attention to the holes because they are preoccupied with their own concerns. In this sense, the holes originate from the structural level, not at the actor level.

While Burt deliberates on how to connect breaks in the "flow of information," he is relatively indifferent regarding brokerage of the "flow of meaning," including cultural factors such as practices, discourses, and symbols (White, 2008). Fragmented networks exhibit breaks in cultural ties as well; the networks of fragmented systems are culturally differentiated, composed of discordant symbolic resources. Norms and rules are disputed, and actors attach different meanings to symbols and events. These social-cultural breaks also create the conditions for brokers to emerge. The notion of "cultural holes" refers to the breaks found within incommensurable symbolic transactions among actors (Pachucki and Breiger, 2010).

Along with structural and cultural holes, "exploit" is another notion referring to "physical holes" in networks. Information networks do have bugs and holes, a by-product of high levels of technological complexity, which make them as vulnerable to penetration and change. These holes could be targets for hackers in attacking the network and are called exploits. Computer viruses and malicious codes exploit the holes, which are critical points for interoperability or compatibility between various programs in the entire network. While the discovery of structural or cultural holes means competitive advantages for firms, the discovery of exploits means the disturbance of a system by "negative brokers." In this sense, exploits are likely to work as "structural black holes" that cause the whole system to collapse (Galloway, 2004; Galloway and Thacker, 2007).

2. Positional Power: Exploring Actor's Role in Networks

How do brokers have the power under a certain structural condition? What kinds of power do brokers exercise? By bridging structural holes, brokers occupy central positions in a

network structure, acting as nodes through which multiple transactions coalesce. According to the notion of structural holes, these positions are cores to explaining how and under what conditions *brokership* is possible. A broker's power is found, not in actor's attributes, but in its position (Goddard, 2009: p.257). In this sense, the power of the broker — i.e., brokerage power – could be called "positional power" (Gould and Fernandez, 1989).

Positional power originates from structural attributes: the number of nodes, pattern of links, and architecture of the whole network. It is contrasted to the existing notion of "resource power," which refers to the power based on resources held by actors. In this respect, positional power is one aspect of recent theoretical attempts concerning "network power" that derives from one's relationships with others (i.e., networks) rather than its attributes (Grewal, 2008; S. Kim, 2008b; Castells, 2009; Hafner-Burton, Kahler and Montgomery, 2009). Actors could utilize their network position and convening capability to offset military and economic disadvantages. "Brokerage power" is the other side of the coin of positional power. In fact, the positional or brokerage power has been relatively neglected in IR. Although the existing studies of power have dealt with relationship or position in their discussion, they have paid limited attention to positional factors derived from the fractional aspects of bilateral or multilateral relations.

Which actors in a network have more abilities to exercise positional or brokerage power? According to network theorists, actors who control "centrality" have more opportunities for power (Chang, 2009). Here, the meaning of controlling centrality is not concerned with being located at the center of the network in a geographical sense, but with playing central roles in a functional sense. If we understand centrality in this way, occupying the geographical center does not necessarily guarantee power. Rather, what matters in a network power game is how actors in the network are linked to each other and, further, how the network is configured.

Concerning centrality, Linton Freeman presented three notions: degree centrality, closeness centrality, and betweenness centrality. Degree centrality means the number of ties that a node has. The more links a node has, the higher degree of centrality it has. Closeness centrality means the distance between one node and another. The closer the distance between nodes is, then the higher closeness centrality is. Betweenness centrality means the number of times a node acts as a bridge along the shortest path between two other nodes. The more actors have to communicate via a node, the higher betweenness centrality the node has (Freeman, 1977; 1979).

This paper adopts two criteria, and attempts to distinguish types of brokers who control centralities. One is whether brokerage is only concerned with the flow of information or it includes bridging the holes of meaning. This is similar to distinguishing structural holes from

cultural holes, as seen above. The other is whether brokerage aims to provide "interoperability" among the same kinds of actors, or "compatibility" among the different kinds of actors. This is similar to distinguishing structural holes from exploits, as seen above (S. Kim, 2008b: p.397).

<Figure 4> Types of Brokers

	Providing interoperability	Providing compatibility
Information brokerage	<1> Connector	<2> Transformer
Meaning brokerage	<3> Messenger	<4> Translator

Source: Modified from S. Kim (2008b), p.398

Applying these criteria, there are four types of brokers who exercise positional or brokerage power, as seen in Figure 4. Cell 1 refers to the power of the "connector," who provides interoperability by bridging the holes of information. Cell 2 refers to the power of the "transformer," who provides compatibility by bridging the holes of information. Cell 3 refers to the power of the "messenger," who provides interoperability by bridging the holes of meaning. Cell 4 refers to the power of the "translator," who provides compatibility by bridging the holes of meaning (S. Kim, 2008b: pp.398-399).

These four types of positional or brokerage power are influenced by structural attributes of networks. In other words, the structural conditions of a network enable or disable brokers to play particular roles and thus to have more possibilities to exercise power. However, the positional factor does not determine all actors to act as the same kinds of brokers, as examined above. This is due to the fact that actors would have a certain amount of autonomy in taking strategic options under any circumstance. Nevertheless, the broker's strategies would be more likely to succeed if they accommodated the requirements of the structural conditions in the network.

3 Translation: Exploring Actor's Networking Strategies

To explain middle powers' strategies for exercising positional power under a network structure, this paper relies on the actor-network theory (ANT), which emerged in the sociology of science and technology during the mid-1980s. ANT attempts to explain how human and non-human actors come together to act as a whole; the clusters of actors involved

in creating networks are both social and physical. Here, ANT is often associated with the equal treatment of human and non-human actors. ANT assumes that all entities in a network can and should be described in the same terms. The rationale for this is that differences between them are generated in the network of relations and should not be presupposed. According to ANT, therefore, the agency of human actors is dependent upon a network of heterogeneous elements realized within a set of diverse practices. In this context, ANT looks at explicit strategies for relating different elements together into a network so that they form an apparently coherent whole — that is, an actor-network (Latour, 1987; 2005; Law and Hassard eds. 1999; Harman, 2009; Hong ed., 2009).

In this context, one of the major concerns of ANT must be how human and non-human actors build an actor-network. ANT explains this process of networking through the notion of "translation." For ANT theorists, a successful networking is attributable to the ability of translating human and non-human actors into a central network in which all the actors agree that the network is worth building and defending. Within all sociotechnical networks, relational effects result from disputes between actors, such as attempts at the advancement of a particular program, which necessarily results in social asymmetry. Therefore, ANT can also be considered a "theory of power": the stabilization and reproduction of some interactions at the behest of others, the construction and maintenance of network centers and peripheries, and the establishment of hegemony. ANT's notion of power is concerned with network power rather than resource power in that it is especially measured via the number of entities participating in the networking. In this sense, ANT maintains that power is generated in a relational and distributed manner as a consequence of ordering struggles (Law, 1992; Hong, ed., 2010: p.25).

Any actor-network involves a vast number of translations and attempts to create a central network. A French ANT theorist, Michel Callon, presented a popular framework to understand the specific process of translation (Callon, 1986a; 1986b). In his widely-debated study on how marine biology researchers tried to restock St. Brieuc Bay in order to produce more scallops, Callon defines four "moments" of translation: i) at the moment of problematization, the researchers seek to become indispensable to other actors in the program by defining the nature and the problems of the researchers' program of investigation; ii) at the moment of *interessement*, a series of processes are deployed by which the researchers seek to lock the other actors into the roles that were proposed for them in that program; iii) at the moment of enrollment, a set of strategies are adopted in which the researchers seek to define and interrelate the various roles they had allocated to others; iv) at the moment of mobilization, a set of methods is used by the researchers in order to become properly able to represent the actor-network and not betrayed by the participants. Here,

Callon argues that translation is a process, never a completed accomplishment, and it may fail (Callon, 1986a: p.196).

<Figure 5> Four Moments of Networking Strategies
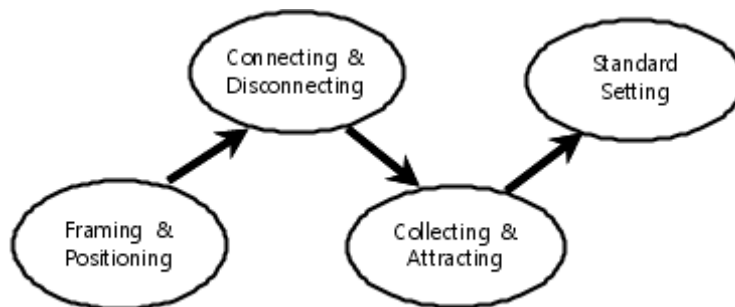
These four moments discerned by Callon are useful for understanding various cases in which the lens of networking strategies should be applied. In spite of significant controversy over its relevance, Callon's four moments are largely cited in numerous studies throughout the various fields of the social sciences. For example, the framework of translation is applied in empirical case studies in the system of information technology and standard competition (Walsham, 1997; Lee and Oh, 2006; Kien, 2009). This paper also tries to adopt his framework of translation to analyze South Korea's diplomatic strategies from an IR perspective. However, it modifies the terms by used Callon into simpler concepts, as seen in Figure 5: i) framing and positioning, ii) connecting and disconnecting, iii) collecting and attracting, and iv) standard setting. Now, let us turn the theoretical discussion about structure and position into a more empirical examination of networks in Northeast Asia.

IV. Roles of South Korea as a Middle Power

The network framework introduced above generates new theoretical considerations of diplomatic strategies of South Korea as a middle power. First, identifying structural holes or social capital, South Korea has to contextualize its position within the network structure of the Northeast Asian regional system. Second, recognizing the roles of a broker in the network structure, South Korea has to be familiar with managing the asymmetric game among network partners. Third, being aware of the limitations of a middle power's broker-

age roles, South Korea has to rely on collecting and attracting as many like-minded countries as it can. Finally, positing its proper roles upon the platform designed by great powers, South Korea should seek to complement and further renovate the network structure in favor of small and middle powers.
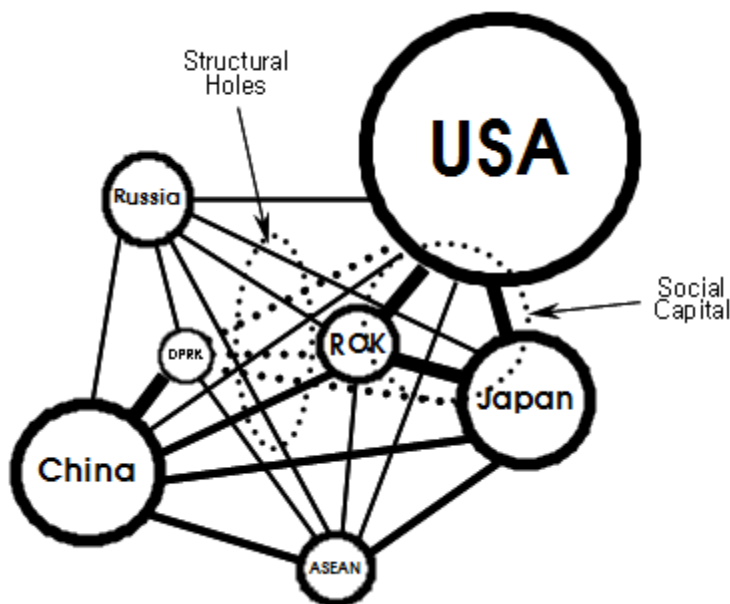
1 Framing and Positioning in the Network

The first stage of networking strategies, which is Callon's moment of problematization, refers to the "framing and positioning" of the network. A major task here is to comprehend the overall configuration of the network and define the coordinating or conflicting interests of the actors who are engaging in the network game. This process is similar to news framing in mass media. For a middle power, a central task at this stage is to understand which great powers set the scheme. Only after reading the context, a middle power can assign itself roles within the network. Joseph Nye conceptualizes this ability as "contextual intelligence." Contextual intelligence is the ability to understand an evolving environment and to capitalize on trends. There is a wide variety of contexts in which leaders have to operate. Important dimensions of contextual intelligence include the abilities to understand the distribution of power resources and to follow needs and demands, time urgency, information flows, and culture (Nye, 2008).

For middle powers, however, Nye's notion of contextual intelligence is somewhat inadequate for explaining their networking strategies. What middle powers need could be better articulated as the notion of "positional intelligence," which is more sensitive to structural conditions working as facilitating or constraining factors, not as a neutral environment, over middle powers. Along with positional intelligence, the so-called "niche intelligence," which means the ability to identify kinds of "niche markets" in the network context, is also crucial for middle powers. Positional or niche intelligence is predicated on two kinds of abilities. One is the ability to exploit structural holes; the other is to capitalize social capitals. For both abilities, it is critical to recognize that those structural holes and social capitals, which exist in a subtle tension, do not physically pre-exist in the network. They are likely to be socially constructed by actors who are playing network games.

<Figure 6> Simulated Map of the Network of Power in East Asia

Source: Adapted from Ha and Kim eds. (2010), p.80

Figure 6, a simulated map of the "network of power (NoP)" in East Asia, could be a reflection of South Korea's ideas of framing and positioning. It helps understand what framing and positioning — which rely on the notion of contextual, positional, and niche intelligence — mean for a middle power's networking strategies. This initial framing and positioning is important in that the roles of actors, orientations of strategies, and even range of exercising power would depend on how South Korea envisions the "network of power" in East Asia and its position with the network. As seen in Figure 7, this is the same process to define an "obligatory passage point (OPP)," as Michel Callon emphasizes in his statement about translation. Defining OPP may provide a focal point around which new visions can form and coalesce. Actors themselves can be created and transformed during the course of strategic interaction. Framing and positioning can reconfigure cognitive maps that actors originally have and demarcate new relations of power in the network.

In fact, this ability to frame has been monopolized by great powers in IR history. Likewise, the United States and China are currently competing for framing and positioning in East Asia, as well as in the global arena. China is increasingly assertive, while the United States is responding through the complex strategies of engagement and balancing. This development is likely to make it more difficult for South Korea to pursue a configuration favorable to its positional roles. Less tension among great powers is critical so that they can be more willing to cooperate with middle powers for their benefit. Indeed, middle powers

will discover more effective diplomatic roles when great powers do not engage in conflict. If the U.S.-China power competition escalates into military tensions, middle power diplomacy in the Asia Pacific region will be weakened (Lee, 2012: pp.10-13).

<Figure 7> Obligatory Passage Point (OPP)
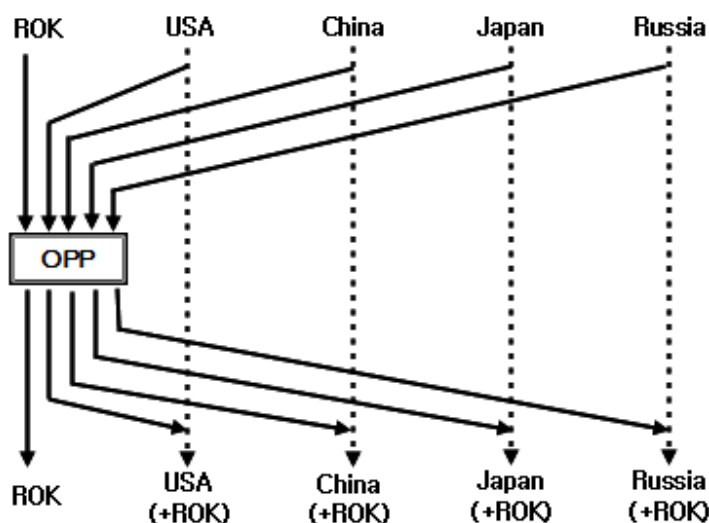
Source: Adapted from Callon (1986a)

In this context, South Korea must seek to frame the configuration of the East Asian regional system in order to not create a dilemma where South Korea has to choose one side or the other and to place itself into a favorable structural position. The fate of the Korean Peninsula, located between two great powers, is likely to fall into the realm of great power politics. It is necessary for South Korea to mitigate rivalries between the great powers and, indeed, transform the nature of power politics in Northeast Asia. In this context, South Korea needs to learn from its previous slippery attempts of framing and positioning concerning the ideas of "Balancer in Northeast Asia" or "Hub State in East Asia" in the early 2000s. In particular, South Korea should overcome the previous self-centered ideas of national strategies and make a renewed effort to read power configurations among surrounding countries.

2. Connecting and Disconnecting Ties

The second stage of networking strategies matches Callon's moment of *interessement*; it is "connecting and disconnecting" to make certain ties stronger and to sever others. This means a process of network diplomacy to break existing ties on the one hand, and to build new relationships on the other hand. It is this process of integrating and destroying ties

that lies at the heart of brokerage. Brokerage processes may alter network structures, leaving actors with a fundamentally different set of network ties and changing the agenda in a network. In this sense, this process is usually accompanied by the process of "asymmetric coordination of relationships." This is in the similar vein with exploiting structural holes and capitalizing social capitals, as described above. Indeed, this process of connecting and disconnecting ties belongs to the realm of strategic choices at the risk of opportunity costs.

In coordinating the asymmetric relationships, with what criteria should a middle power build or break ties? As introduced above, social network theory would advise to weave networks to enhance three kinds of centrality. Above all, networking strategies should depend on enhancing "degree centrality"; the more numerous an actor's ties are, the more influential the actor is. Increased density creates social capital and trust, and it generally increases an actor's influence over other surrounding actors. Moreover, networking strategies should be implemented to enhance "closeness centrality." While degree centrality is concerned with the number of ties, closeness centrality is the notion to measure the distance or strength of ties. The closer or stronger an actor's ties are, the more influential the actor is.

Basically, networking strategies — particularly asymmetric coordinating strategies— should be devised in terms of elevating these two kinds of centrality. However, it is not easy to achieve this goal of asymmetric coordination especially because the establishment of a new relationship would mostly require the cost of destroying an old relationship. In particular, problems arise when it is necessary to break as much as is built. In other words, strengthening ties with an actor usually means weakening ties with another, as we observe in a triangular relationship between men and women. Although it is difficult to build a general principle to understand how to manage the asymmetry, South Korea's nineteenth-century diplomatic history provides precious lessons.

In the late-nineteenth century, Huang Zunxian, the Qing dynasty's diplomat in Japan, compiled a policy paper with recommendations for Korea's foreign policy. This document, known as "*Chosun* Strategies," advised Korea to build ties with neighboring countries. He wrote that, to defend (防) against Russia, Korea should keep close (親) to China, build bonds (結) with Japan, and connect (   ) to the United States, as seen in the left of Figure 8. Here, the scenarios of keeping close, building bonds, and connecting refer to differentiated types of relationships with other countries. Overall relationships should be managed by a diplomatic awareness of asymmetric coordination. What diplomatic prescription would be included in a policy recommendation paper for twenty-first-century South Korea? (W. Kim, 2012) It is not difficult to imagine that the most critical part of the paper would deal with how South Korea handles its traditional alliance (盟) with the United States in coping with

a newly-rising China and threatening North Korea. Obviously, South Korea's problem is how to coordinate a new configuration of relationships — allying (盟), keeping close (親), building bonds (結), and connecting (聯) — as hypothetically drawn in the right of Figure 8.

<Figure 8> Managing Asymmetric Relationships

a) 19th Century   b) 21st Century
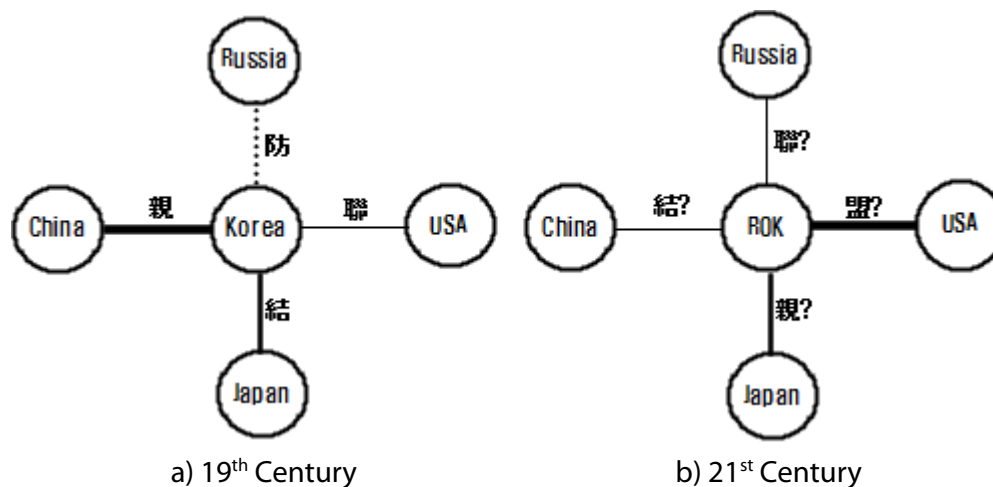
The above issues of connecting and disconnecting should be further examined from the perspective of brokerage. The goal of brokerage depends on how to enhance the third aspect of centrality — "betweenness centrality." Betweenness centrality in the network affects an actor's power. If an actor has an exclusive tie between other two actors, then it is more likely to influence the actors, who are connected via the actor itself. Further, it is likely to transform the structure of the game in the network. In this sense, the power concerning betweenness centrality is the brokerage power that controls the flows of information or meaning in the network. This could be understood as the positional power, which originated from occupying advantageous spots in the network structure. In this sense, situated at the interstices of networks, a middle power must be equipped with positional power — as conceptualized above as connector, transformer, messenger, and translator — which is strong enough to employ various resources for its network diplomacy.

In this view, South Korea is likely to play a brokerage role among East Asian countries since it is located among them at the geopolitical crossroads. For example, South Korea's positional power as a broker in the regional power structure could be realized between North Korea and other four countries — the United States, China, Japan, and Russia. Also, South Korea's bridging role could be significant in regard to the territorial conflicts between China and Japan since it shares a common historical experience with each country. A brokerage role between the United States and China, which are engaging in hegemonic

competition, seem to be possible, but it is less feasible. For the coming decades, the most important strategic issue for South Korea is to manage the asymmetric relationship between its traditional military alliance with the United States and increasing economic interdependence with China.

3. Collecting and Attracting Like-minded Groups

The third stage of network diplomacy — the stage of enrollment in Callon's term — is "collecting and attracting" like-minded groups in the network. What matters at this stage is to bring together other actors for common interests. The actor constructs a new network around itself after deconstructing prior relationships. And, the actor defines the new roles for like-minded groups and to attract them as supporters for a long time. In particular, middle powers need to have as many supportive actors as possible in the network that they built. An enriched pool of supporters in the network enables middle powers to play active brokerage roles. In fact, a large portion of middle power's brokerage roles comes from its ability to bring more actors than others do. This is the basic ideas of an aspect of network power—i.e., "social power (Hafner-Burton, Kahler and Montgomery, 2009; Kahler ed., 2009) or "collective power" (S. Kim, forthcoming).

<Figure 9> Weaving Webs vs. Building Hives
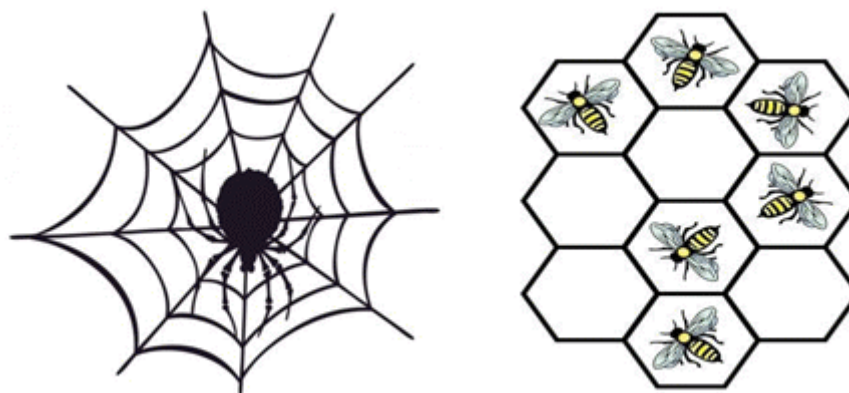
To attain the goal of collective power, it is necessary to recognize that the nature of actors in middle power's networking strategies should be different than great powers. While great power networking can be compared to a spider weaving a web, middle power networking is similar to honeybees building a hive. Impressively, the result of the honeybees' collaboration is a network that has multiple hubs within it. It is contrasted to the mono hub network structure of the spider's web, as seen in Figure 9. Adopting this analogy, middle

power network diplomacy can be called "collaborative diplomacy." The patterns of diplomacy remind us of online collaboration, conceptualized as "collective intelligence" (Levy, 1999). In this sense, middle power diplomacy could also be called "collective diplomacy," pursing "collective power" — the power generated from bringing heterogeneous actors together. In particular, middle powers seek to exercise collective power through cooperative alliances. These alliances are intended for all neighbors to enhance their influence over regional and world politics by collecting and integrating their fragmented capabilities.

In fact, aggregating capabilities to form collective power has long been a major concern of statecraft in international politics. For example, balance of power, a classical IR notion, could be regarded as a kind of collective power, since the idea was derived from small powers' intention to unite against the strongest in the system at the time. In the case of traditional international politics, collecting and balancing powers are driven in terms of hard power, such as military capabilities and economic resources. Rather than hard power, which is the ability to push and coerce, today soft power is what gains wide currency, which is the ability to attract and persuade arising from the attractiveness of a country's culture, political ideals, and policies (Nye, 2004). Considering middle power capabilities, which are less powerful than great powers in terms of hard power, soft power as a different measurement of power would be quite attractive for leaders of middle powers.

In this view, it is natural that a middle power's major concern lies in deploying "soft power diplomacy" or "attractive diplomacy." In diplomatic areas, South Korea as a middle power has launched a variety of developmental and cultural policies and thus aimed to convene as many supporters as it can. For example, South Korea's new roles in the international conferences recently held in South Korea provide channels to conduct middle power diplomacy. South Korea's collective diplomacy would shed light on critical security issues such as North Korea's nuclear threat, if it gains support from international society. In deploying collective and attractive diplomacy, South Korea is now actively utilizing the public policy tools of social network services (SNS), such as Twitter, Facebook, and YouTube, which could be considered non-human actors in ANT.

The ideas of collective diplomacy may provide some insights for South Korea, located between the United States and China geographically and diplomatically. As discussed above, South Korea should be cautious not to place itself in the middle of the power competition between the United States and China. However, if South Korea is fated to be situated between the two powers, then it would be better to seek alignments with other small or middle powers that share similar security concerns. In other words, South Korea has to seek cooperation with other countries in order to avoid confrontation between the two powers. In this case, the primary candidates could be Japan and Russia as neighboring

countries. However, South Korea has to make an effort to seek behavioral support even from geographically remote countries, and attempt to create a favorable network configuration around itself.

4. Complementary Standard Setting

The final stage of network diplomacy is the "standard setting," corresponding to Callon's moment of mobilization. The main concern of this stage is to impose generalization or universality on the network constructed (or reconstructed) in the previous three stages. In this stage, it is important to reinforce established networks, to keep it sustainable, and to make it acceptable for the participants. In Callon's explanation, actors who finally succeed at the end of the voyage called "translation" will gain the authority of "representation" and can mobilize other actors up to the platform that they built. Then, they will exercise programming power as the new architects of the network program. They do not necessarily have to design the whole system. For middle powers, it is sufficient to be a complementary programmer, who can provide system adjustments and adaptations that increase interoperability and compatibility and further reinforce normative values and legitimation.

However, the power of programming a rule in the game of world politics has rarely belonged to middle powers. Rather, great powers have wielded the programming power that sets institutions, norms, and philosophical goals and values in world politics. In this sense, it might not be required for middle powers to set the strategy of "designing the whole web," but, instead, maintain the strategy of "hanging on and trying not to fall from the spider's web," already woven by the great powers. In order not to wind up as prey for spiders on the web, middle powers must become acquainted with the nature of the spider's web — i.e., its architecture and operating mechanisms. In this context, middle powers' "programming diplomacy," if any, should be complementary to the existing system. This paper adopts three analogies from computer programming to describe the complementary roles of programming power, which have special implications for middle power diplomacy.

First, middle powers are likely to have the privilege of problematizing normative legitimacy that the existing world order may lack. It could be known as the strategy of "normative programming" in the sense that diplomatic concerns are with normative, not with positive, aspects of the programs. For middle powers that have less military capabilities and economic resources, norm- or value-oriented diplomacy is a crucial and effective means to attain the goals. Indeed, diplomatic strategies which are inclusive and close to international norms are more likely to be attractive to other countries (Slagter, 2004). Moreover, if the middle power pursues collective diplomacy, and mobilizes supporters around the world, the authority of

normative diplomacy will be reinforced. These ideas of normative diplomacy could gain some precious insights from the movement of open source software, such as Linux, which delegitimizes the so-called proprietary software, such as Microsoft's products, by monopolizing software source codes that might be critical for further innovations in the software programmer's community.

Second, although middle powers are not allowed to design the whole system of world order, it is likely and even desirable for them to patch up some niche programs upon the platform designed by the great powers. I would call it the strategy of "application programming." This term suggests a computer program, in which various application software programs are working upon a platform — an operating system software. In this sense, middle powers could design complementary governance programs, devised to accelerate the effective operation of global governance in various fields. Those complementary programs might target some niches or holes that great powers neglect due to their ontological and epistemological limitations. In particular, their unique position in the existing system requires middle powers to play a complementary role to the existing world order, not to play an exploitive role through challenging great powers' initiatives.

Finally, middle powers' roles as brokers have affinity with the strategies of combining or mixing existing programs, rather than creating entirely new programs. I would call it the strategy of "meta-programming," comparing it to that of "substantial programming." Social network theorists say that brokers have more capacity for blending ideas than other actors in world politics, although they cannot introduce entirely new inventions. Whether or not broker's ideas are attractive to others is not so much a matter of content as context; it depends on how brokers incorporate various contents found in existing networks. South Korea's experiences in economic and democratic development provide good examples for the meta-programming, in the sense that the South Korean model of political economy, which can be called the "Seoul Consensus," is likely to combine the concerns of developing countries as well as those of advanced countries. Indeed, although the South Korean model began with the authoritarian model of pursuing economic growth, which has recently conceptualized in the "Beijing Consensus," it achieved the goal of democracy after remarkable economic development, which is called the "Washington Consensus" and is prescribed by advanced countries, especially the United States (Sohn, ed., 2007).

V. Conclusion

This paper presents a theoretical framework to understand the diplomatic strategies of South Korea as a middle power. While many IR scholars point to an actor's attributes to explain middle power, network theorists rely on a positional account. The attribute-approach is useful in delineating the potential candidates as middle powers who have a certain amount of material resources, but it fails to explain what kinds of specific roles are necessary to be qualified as a middle power. Therefore, to explain a middle power's agency, it is necessary to understand how middle power is defined in terms of structural position in a system and to explore how an actor's structural position affects its capacity to play meaningful roles. Network theories provide the studies of middle power with theoretical resources concerning the structural attributes of networks, such as structural holes.

Indeed, structural holes give brokers special advantages over other actors in a network: they have more flexibility in connecting broken ties than other actors; they have the capacity to introduce new ideas and to translate meanings; and they can provide interoperability or compatibility throughout fragmented network structures. In this context, this paper also adopts theoretical notions from social network theories — brokerage and positional power — to examine how to bridge structural holes in Northeast Asia. In fragmented networks, a middle power's position bridging structural holes gives it the ability to act as a broker. Here, it is most important for South Korea as a middle power to have the ability of contextual and positional intelligence, which reads constantly evolving contexts and identifies its moving positions in the East Asian network of power. If it is equipped with this ability, it would be more likely to define a middle power's roles corresponding to the structural conditions of the network.

The discussion about network structure and brokerage power offers the directions of networking strategies that a middle power has to pursue. However, the structural and positional factors do not determine all actors to play the same roles of brokerage, because actors would have a certain amount of autonomy in taking strategic options under any circumstances. This is why a discussion about how actors specifically implement networking strategies is needed. To explain middle powers' strategies for exercising positional power under a network structure, this paper relies on actor-network theory (ANT) and particularly adopts Michel Callon's framework of "translation" — i.e., networking strategies. However, this paper adopts his framework, but modified its terms with easier words: i) framing and positioning, ii) connecting and disconnecting, iii) collecting and attracting, and iv) standard setting.

Applying these theoretical resources, this paper identifies the four elements of middle power's networking strategies which South Korea should consider. A premise of successful

strategies for middle power must be to understand the surrounding network structure and to frame its position within that context. With the simulated map of networks, South Korea should be able to manage asymmetric relationships among great powers in Northeast Asia. South Korea would act as a broker, more than a mere connector, providing the mode of transition, switching, transforming, and translation between different actors of networks. To fulfill the brokerage roles, South Korea has to learn how to bring together states and non-state actors, utilizing various non-human actors (e.g., SNS) to attract supportive forces in world politics. Through questing for networking strategies, South Korea as a middle power could be an architect, not a whole system designer but a complementary programmer, that can provide useful patch programs for the whole system operated by great powers.

Although this paper deals mainly with theoretical issues, it is necessary for further research to pay more attention to empirical cases on middle power diplomacy. For example, this paper suggests examining three issue areas which contain structural holes mainly generated from the structural competition between U.S. leadership and China's challenges, and, thus, highlight various policy implications for South Korea as a middle power.

First, South Korea could grasp opportunities to exploit structural holes in some non-traditional security issues, such as cyber security, atomic energy, and ecological security, in which great powers, including China, are still competing with the priority of, and even the goal of, governance mechanism. Second, official development aid (ODA) must be a good policy for South Korea's international economic roles as a middle power. Indeed, South Korea seems to have been successful in positioning itself as a supportive donor country to developing countries between the Western model of "good governance" and the Chinese model of unconditional aid. Finally, in the field of information, communication, and culture in cyberspace, South Korea finds itself located at a crossroads (or dilemma) where two paradigms of Internet governance — the so-called "stakeholderism" driven by the United States and the inter-governmental regulatory approach supported by China and developing countries — are competing. However, it is also true that the dilemma provides South Korea with opportunities to play critical brokerage roles.

To conclude, South Korea as a newly-emerging middle power has diplomatic tasks to play positive roles in contributing to the peace and prosperity of East Asia and the world. To achieve these tasks of middle power diplomacy, it is essential that South Korea figure out what kinds of roles are expected of it and under what structural conditions it can play those roles in more effective ways. Conceptual notions and the theoretical framework introduced in this paper are useful in identifying the configuration of the network structure in the particular issue areas, the nature of structural holes within the network, and the strategic options for South Korea under the structural conditions. ■

Acknowledgement

Endnotes

[1] Concerning the diplomatic strategies of South Korea as a middle power, my discussion in this paper relies on S. Kim (2011a) and S. Kim (2011b).

[2] This paper does not provide a comprehensive literature review of network theories. In fact, network theory is not a single theory; there are different variants. For an overview of network theories from an IR perspective applied to the Korean context, see Ha and S. Kim, eds. (2006; 2010) and S. Kim ed. (2011).

[3] The theoretical framework of this paper is in a similar context to other IR studies that adopt network theories (Hafner-Burton, Kahler and Montgomery, 2009; Kahler ed., 2009; Maoz, 2010). However, my framework of "the Network Theory of World Politics" (NTWP) is more comprehensive than other attempts that have mainly relied on social network theory. Along with social network theory, my framework also pays attention to the other camps of network theories, e.g., network organization theory and actor-network theory. For the outline of NTWP, see S. Kim (2008a; forthcoming).

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