

## **Connecting to Brokers: Strategies for Acquiring Social Capital**

Daniel J. Brass

It's not wise to be the first or the second when it's the third who benefits. This is not a temporal sequence; rather, I'm referring to advantages of the *tertius gaudens* – the third who benefits from the disunion of the other two (Simmel, 1950). Research in organizations has shown that it is wise to be the broker – the third who is connected to two disconnected actors (e.g., Brass, Galaskiewicz, Greve, & Tsui; Burt, 2005, Fernandez-Mateo, 2007). The lack of connection between the first and second is often referred to as a structural hole. As Burt (2005) has argued, the broker is in the position to access and control the information flow between the two disconnected people or groups and acquire social capital. At the individual level of analysis, the advantages of structural holes translate into power (Brass, 1984), better performance (Mehra, Kilduff, & Brass, 2001), promotions (Brass, 1984; Burt, 1992), career success (Seibert, Kraimer, & Liden, 2001) and creativity (Brass, 1995; Burt, 2004). Studies at the interorganizational level of analysis also suggest that social capital accrues to the broker organization. Brokerage has been related to firm survival (Koput & Powell, 2003; Oh, Kilduff, & Brass, 2006), innovation (Stuart & Podolny, 1999; McEvily & Zaheer, 1999), market share (Rowley & Baum, 2004), and performance (Provan & Milward, 1995). Why then would anyone want to be the first or the second?

This chapter examines the question of why we use brokers – people who connect two other people who are themselves not connected – if the broker is the one who primarily benefits from the exchange. The broker wins because he can access and control the information flow between the two other actors. Risk is created by the possibility that the broker may engage in opportunistic behavior, playing you off against the other party. Connecting to brokers carries with it this vulnerability. Yet, there are many everyday examples of connecting to brokers. We seek out real-estate agents to buy or sell our homes; start-up businesses seek venture capitalists; we go to banks for loans, lawyers for advice, and Consumer Reports for information. All retail outlets broker between customers and wholesalers, yet we frequent them. And millions of people have connected to perhaps the most successful broker of recent times: E-bay.

In seeking to determine why we use brokers, this chapter explores the ramifications of two strategies for developing social capital: the closure strategy, which focuses on connections with friends of friends; and the broker strategy, where people connect to diverse, disconnected others.. Whom should we connect with? What is the best strategy for acquiring social capital? By examining these two approaches, as well as their pros and cons, we may draw insights as to how to build social capital as an individual, an organization, and a society.

\*\*\*\*

## **Social Capital**

We must first define social capital – a task that has received much attention and produced multiple definitions. This chapter adopts a multilevel definition: “The sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit,” (Nahapiet & Ghoshal, (1998: 243). This definition encompasses the individual approach with its focus on accessing and controlling resources exchanged through relationships with others (as illustrated by the above references to the advantage of the broker position). It also includes the group level approach with its focus on the collective benefits of relationships in providing social capital in the form of norms, trust, and reciprocity (Coleman, 1990; Putnam, 1995). Neither approach forgoes the other entirely, but the difference in definitional levels of analysis is amplified by seemingly contradictory predictions concerning the acquisition of social capital. At the individual level, connecting to disconnected others results in social capital; at the group level connecting to others who are connected results in closure in the network and the social capital associated with trust, norms, and group sanctions. The difference is in the focus on individual versus collective goods. For more information about the breadth of research on social capital’s definitions, see Ostrom (2007) in Chapter 1 of this book.

The group level definitions of social capital , which focus on norms, can present an “oversocialized” view of human behavior that leaves little room for strategic action. Equally unlikely is the “undersocialized” view that individuals act in isolation, disregarding the impact of social structure (Granovetter, 1985). Rather, I adopt a more multilevel definition that allows for strategic action without disregarding social structure. Incorporating both levels of analysis is essential because, as Lin (2001: 8) points out

“Whether social capital is seen from the societal-group level or the relational (individual) level, all scholars remain committed to the view that it is the interacting members who make the maintenance and reproduction of this social asset possible.” My focus in this chapter is on the strategies individuals might engage in to acquire social capital.

Individual actions result in relationships that aggregate into social structure. While social structure may enhance or constrain individual actions, there is little doubt that such structure also arises from these actions. I view social capital, like other forms of capital, from an investment perspective with the expectation of future (often times uncertain) benefits (Adler & Kwon, 2002).

### **Social Networks**

I approach the issue of social capital from a social network perspective. A social network is a set of three or more actors and ties representing some relationship, or lack of relationship, among the actors. Although social networks are built upon the dyadic interactions between actors, one of the basic assumptions of social network analysis is that dyadic relationships are affected by third parties. For example, the dyadic relationship between a husband and wife is affected by the birth of a child. A second child further affects the family’s relationships, and we could easily add other actors to this family network (e.g., mother-in-law). A lack of a relationship may affect actors in the network. For example, a divorce between the parents affects the children. Thus, we suggest that actors are embedded within a web or network of relationships with other actors. The focus is on the relationships, and the pattern of relationships, rather than on the attributes of the actors. It is this network of relationships, as the above definition notes, that is the basis for social capital. How then does one strategically build networks

and how do strategic actions affect network structure and social capital? We begin with the closure strategy, followed by the broker strategy.

### **The Closure Strategy**

The closure strategy, as advanced by Coleman (1990) and others, involves connecting to an acquaintance or friend of a friend; in other words, getting to know someone who is linked to a person you already know. We can trust the new acquaintance because she knows someone we know and is thus subject to our group's norms, monitoring, and sanctions against inappropriate or opportunistic behavior. For example, the tight connections between the diamond merchants in New York enable them to exchange thousands of dollars worth of diamonds without worrying about theft (Coleman, 1990).

There may be a natural tendency toward connecting to friends of friends and the resulting closure. The preference for interacting with others similar to ourselves – *homophily* – drives this approach. “Birds of a feather flock together.” People tend to connect with others who are similar (Brass, 1985; Ibarra, 1992; McPherson & Smith-Lovin, 1987; Mehra, Kilduff, & Brass, 1998). The generally accepted explanation for homophily is ease of communication. The idea that we are more likely to trust people who are like us is equally probable. In this case, we may feel we can more easily predict their behavior.

These homophily connections may not be “strategic” connections, that is, connections made with some intentional investment, future-value in mind. More strategic may be complementary connections. Complementarity is a criteria network members often use when they are trying to acquire resources, reduce uncertainty, and achieve collective goals (Brass, Galaskiewicz, Greve, & Tsui, 2004). The manufacturing organization becomes a

complementary partner with the distribution company. However, even research on alliance formation, which one would expect to depend on a more strategic, investment-oriented approach, suggests that homophily is still relevant. Similar status and power are important, as well as trust, prior connections and third party connections (Chung, Singh, & Lee, 2000; Gulati, 1995; Gulati & Gargiulo, 1999). Homophily is also evident in investment banks that ally with others that have similar social characteristics (Podolny, 1994). I assume some complementarity at the interpersonal level, but further assume that such relationships are relatively short lived unless the actors discover a basis for homophily. Strategically instrumental interactions seldom become enduring relationships without some basis for similarity. Ideally, we connect to others who are instrumentally complimentary and socially similar. Within the constraints of time and space, we build relationships with people who are similar and whom we like. If we think strategically, it probably involves little more than the generally accepted notion that bigger networks are better.

### **Creating a Closure Strategy**

Homophily may be the seed of the closure strategy. Similarity breeds attraction; attraction breeds interaction; and, interaction breeds more similarity (Umphress, Labianca, Brass, Kass, & Scholten, 2003). This situation makes it relatively easy to create trust, norms of reciprocity, and sanctions for inappropriate behavior. Yet, similarity is relative and increased similarity within groups fosters increased perceptions of dissimilarity across groups. Membership in close-knit groups fosters in-group/out-group biases such as distrust of dissimilar others. Achieving social capital within the group may be at the expense of social capital across groups.

### **Closure Requires Brokerage.**

The irony of the closure strategy is that it may require brokerage to be successful. Closure, as discussed by Coleman (1990), does not require that everyone in the network be connected to everyone else in order for norms to develop or sanctions to be applied. Indeed, if everyone were to be required to connect to everyone else (maximum density), even moderate sized organizations or communities would never be able to develop norms. As the size of the group increases, the chances of everyone being connected to everyone else decrease considerably. For example, in a group of 100 actors, 4,950 connections are required for everyone to be connected to everyone else ( $n(n-1)/2$ ). In a medium-sized city, millions of connections are needed. Conversely, maximally connected groups may represent the small, isolated cliques that often result in in-group/out-group biases, distrust across groups, and the failure to transmit norms across groups.

Closure and the resulting trust, norms of reciprocity, etc. requires only that there be a network path connecting the members of the group. For example, in noting the benefits of closure, Coleman (1990: 303) describes a mother who moves from Detroit to Jerusalem in order to ensure more security and freedom for her children. “In Jerusalem, the normative structure ensures that unattended children will be looked after by adults in the vicinity.” In another example, Coleman (1990: 302-3) describes the social capital of clandestine study circles – groups of radical student activists in South Korea. “To avoid detection, members of different groups never meet, but communicate through an appointed representative.” In this example of social capital, the representatives are brokers between otherwise disconnected groups. They are the crucial nodes through which information about norms and behavior travel in the network. Take away the

broker's connections and the larger, clandestine group ( or the city of Jerusalem) becomes smaller, isolated groups that do not share trust and norms of reciprocity. This results in an ironic conclusion: To acquire closure and it's associated benefits, brokerage is necessary.

### **The Broker Strategy**

As Burt (1992) has argued, just making lots of connections at random is not very efficient – your return on your time and effort is not optimal. Rather, it is advisable to be the *tertius gaudens* – the third who benefits. The benefits are 1) access to diverse, non-redundant information/resources, 2) control of information/resources that flow between disconnected others, and 3) ability to play one party off against the other. The third benefit comes at the expense of the first. The ability to play one contact off against the other (two potential buyers bidding for your services) requires redundancy between the contacts, and forfeits the benefits of non-redundant information. Nevertheless, as the opening references illustrate, it is evident that the third can benefit from the disconnection between the first and the second. It is the broker strategy – connecting to diverse, disconnected others – that can integrate society and lead to a small world and six degrees of separation (Granovetter, 1973; Watts, 2003). The essence of the broker strategy is simple – build networks with people who are not themselves connected. However, achieving the broker strategy is not necessarily so straight-forward.

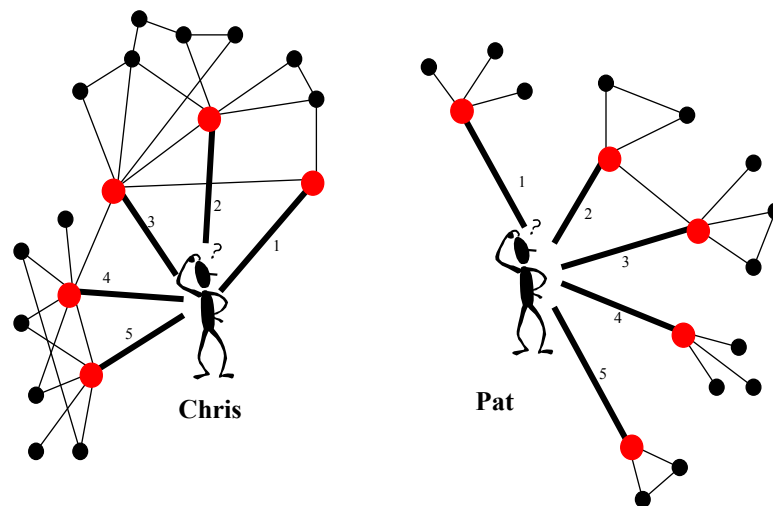
Homophily preferences and trust are likely to be tendencies to be overcome in our attempt to connect to diverse others. Indeed, it is these tendencies, along with proximity, that result in network actors clustering within relatively separate cliques

(leading to the advantage to brokers who can bridge cliques). Ideas and information circulate within, rather than across, groups. By bridging groups, brokers not only acquire nonredundant information but are the first to see synergistic opportunities across groups (Burt, 1992). Any connection to a friend of a friend, and the trust that results from closure in our network does not give us the advantage of the broker role. Thus, to become the tertius gaudens, we must connect to people who are not connected to someone we already know.

### Brokerage Requires Connecting to Brokers

The irony of the brokerage strategy is that the new contact also becomes a broker between her own contacts and us. Consider Table 1. Pat and Chris have the same number of direct and indirect connections but Pat has adopted a broker strategy, connecting to others who are not connected themselves.

Table 1



As a result, Pat has an advantage over Chris who is connected to others who are themselves connected (Burt 2005). However, each of Pat's five connections is now a broker for the relationships between Pat and all her indirect ties (the thirteen people connected to positions 1-5). This irony – connecting to disconnected others makes you a broker but also places your connections in a broker role relative to you – clouds the questions of whether it's advisable to be the first or second if it's the third who benefits. In becoming the third, you simultaneously also become the first/second.

Previous “ego” network research has not included indirect ties, and “whole” network research has considered both direct and indirect ties equally in measuring brokerage. This latter research indicates that persons 1-5, who occupy indirect brokerage positions, gain some advantage. Other recent evidence, however, suggests indirect, second-hand brokerage offers little additional advantage over direct brokerage (Burt, 2006). We need to examine longitudinal data to clarify these issues. For example, connecting to brokers may provide opportunities to connect to the broker's direct links (your indirect links) at a later time.

## **Using a Broker**

### *Whom to Use*

Whether we connect with Chris or Pat, we are using each as a broker. The broker strategy means connecting to brokers. But who would provide us with the most benefit? In most situations, we want to connect to the person who has the most links – direct and/or indirect. Larger networks offer more potential for transforming indirect links into direct ones. But, there is no assurance that either Pat or Chris will introduce you to his

direct links. And, in this case, both Pat and Chris have the same number of direct and indirect links.

Whose direct links are more valuable? The answer depends on the particular situation. If we face an unstructured task and need creativity, innovation, and non-redundant information, Pat's links look more valuable than Chris'. This assessment does not necessarily require an accurate picture of the networks. Because Pat's structural holes provide novel, creative ideas, Pat will likely appear more innovative than Chris as a potential partner. If creativity and innovation are important, Pat is the preferred connection. Connecting to brokers provides the possibility of more non-redundant partnering opportunities with the broker's ties.

Connecting to those with similar or more power can offer significant advantages (Brass & Burkhardt, 1992; Ostrom, 1990; Ring & Van de Ven, 1992; Brass, 1984; Kilduff & Krackhardt, 1994). Power in organizations is often associated with the number of direct ties, access to indirect ties, and brokerage (Brass, 1984.) While Chris and Pat are equally powerful in terms of direct ties and access to indirect ties, Pat has more power by virtue of brokerage. Therefore she appears to be the appropriate choice. Being the first or second is strategic if the third is powerful. However, it is crucial to ensure that a cooperative situation is present – competing with other, powerful players can have negative consequences.

Simply associating with a powerful other can also be advantageous (Kilduff & Krackhardt, 1994). This is true for both individuals (Kilduff & Krackhardt, 1994) and organizations (Podolny, 2001). When powerful actors spend time with you, it sends a signal to outside observers that you are worth their attention. It is a form of advertising,

increasing your own perceived power and attractiveness. However, these same brokers also have more chances to indulge in opportunistic, even unethical behavior (Brass, Butterfield, & Skaggs, 1998).

### ***Risk Management***

You need to consider how likely it is that different brokers may take advantage of you as you select which one to use. In this example, the ability to monitor unethical behavior and apply sanctions is much lower in Pat's closure network than in Chris' brokerage network (Coleman, 1990). However, because Chris' network is closed he may be more likely to act unethically toward you when faced with a choice between you and his network (Fernandez-Mateo, 2007). The repercussions for him acting against his network's norms will be much more severe than those he will probably face if he takes advantage of you. Pat's choice, on the other hand, will not be as clear-cut; acting unethically toward you runs the same level of risk as acting that way toward one of her five clusters. If necessary, she can take advantage of one cluster and then move on and exploit another one. Chris cannot take unfair advantage of any of his connections as the action would quickly circulate among his partners.

To look at the flip side of the coin, you may also use a broker to take advantage of another party. Although the broker manages the information flow between you and the other party, you control the data the broker receives. You can withhold information from the third party by keeping it from the broker. For example, when selling my house I do not tell the real estate agent that the roof leaks. If a potential buyer asks the agent if the roof leaks, she can say that she has no knowledge of any leaks. Without the broker, I would have a moral, if not a legal, obligation to tell the buyer about the roof. Of course,

with this approach you risk severing any future relation with the broker as well as the second party.

### ***Maintaining Brokerage Relationships***

Considering how the brokers maintain their positions may provide some additional insight into how to work with them. Unfortunately, we have very little longitudinal data that address maintenance. If brokers enjoy advantages, it seems logical that they would want to maintain their brokerage role and the social capital it provides.

One strategy is to maintain the disconnect between the actors. The broker remains the source of the non-redundant information to each party. This is advantageous for him in the short-run, but the broker must pay the rent of continually trying to provide novel information to each party. And, at some point the novelty wears off.

Brokers may gain short-term advantage by playing the two actors off against each other, taking advantage of one or both. While this may work in one-time transactions with no further contact, such situations are rare, particularly within organizations and even industries. The downside is that the broker may acquire a negative reputation and be avoided by others. While brokers can avoid negative reputational effects by seeking out new social clusters, it seems much more efficient to foster a positive reputation and referrals. This is because reputational information seems to easily travel across boundaries – especially negative reputational information.

Brokers may use a strong, positive reputation to sustain their position. If one acquires this reputation, others will seek him out. This provides the broker with many potential partners and allows her to select from a variety of connections. People come to

the broker – and being the object of relations is more powerful than being the source of relations (Knoke & Burt, 1983).

Referrals are a primary mechanism for building additional social capital. Closed networks often provide the monitoring that affects reputation (Coleman (1990) and spread information about it quickly. While gossip requires a closed network (the parties exchanging gossip must both know the third party being talked about), referrals do not require mutual knowledge of the third party. For instance, I recommend a doctor to a friend without the friend having any prior experience with the doctor.. Indeed, this is the primary purpose of referrals – connecting two parties who have no prior knowledge of each other. Acting on a referral is equivalent to a closure strategy. I take the advice of my friend and connect to a person who is connected to my friend. When done well, the broker becomes the “go-to-guy” for getting things done in organizations, for partnering within an inter-organizational alliance, or for implementing an innovation in a company. (Obstfeld, 2005). Venture capitalists - a definite broker role - are successful to the extent that they can connect investors with successful entrepreneurs.

How does the broker acquire the positive reputation? This is accomplished by brokering synergies between the different actors. Selecting beneficial partners to recommend to others is important as no one wants to be referred to a bad potential partner. As Baker (1994) suggested, closing structural holes to create helpful synergies may cause the actors to reciprocate by referring the broker to their own contacts, and vice versa. But even without this reciprocity the two actors are reputation-makers or breakers.

### **When to Connect to Brokers**

Rather than asking *if* it is wise to connect to brokers, we might consider *when* it may be wise. Below I note seven situations – all represent instances when it may be difficult or inadvisable to make direct connections. In such cases, the use of a broker may be the best option.

**Search Costs.** When search costs are high, a broker may be advisable. As clearinghouses of information, they may be able to decrease costs. For instance, Pat may be able to condense and pass along valuable data obtained from her disconnected others. Sears brings a variety of products from diverse manufacturers together in one location. E-bay provides a clearinghouse for a variety of hard-to-find products.

**Uncertainty.** Brokers can also remove the uncertainty surrounding connections to a new thing or person. This is particularly true when the product, service, or information is complex or uncertain. Brokers like Consumer Reports provide “grading” – a popular recent activity on the internet as well. Stock brokers attempt to reduce the uncertainty of predicting stock market fluctuations, and venture capitalists reduce the risk of investing in new ventures where uncertainty is high.

**Negative Ties.** Negative ties are a relatively unexplored area of social network research (Labianca & Brass, 2006). However, there is evidence of negative asymmetry where negative events may be more salient than positive ones. Negative information may also circulate more quickly through the network, may decay more slowly, and may be more attended to than positive information.

Connecting to a broker may be particularly helpful when you need a resource to overcome the potential social liabilities created by negative ties (Labianca & Brass, 2006). Because of your negative relationship, it is unlikely that you can even approach the actor, let alone arrive at a cooperative synergy. In such cases, it would be advantageous to have a broker represent you in attempting to acquire information or resources. The broker may also be able to keep you anonymous.

**Expertise.** Disconnects between people may also be the result of a lack of the necessary expertise. In these cases, it may be more efficient to hire a broker than to try and acquire the expertise. This is a common occurrence (e.g., lawyers, foreign language translators). These expert brokers help us connect indirectly with others without the burden of becoming experts ourselves. They not only make our interests known to the other party, but they filter and translate the information from that actor. For example, lawyers translate legal jargon. We must keep in mind that we become dependent on the broker's translation, which may include distortions and inaccuracies, and will need to absorb the costs of the expert's services.

**Emotional Involvement.** Brokers can represent us in a detached, non-emotional manner that may be to our advantage in situations where rational decisions or presentations are difficult or where we are emotionally involved (either positively or negatively). Consequently, brokers are often hired to handle emotionally charged exchanges. Lawyers represent people in bitter divorces, lobbyists promote causes, or agents bid on a coveted possession at an auction.

**Coordination.** Managers, who are the primary brokers within companies, coordinate tasks within organizations, and organizations hire brokers to coordinate inter-organizational activities within industries or regions. This is necessary because communication becomes ever more difficult as the number of people involved increases. In these cases a broker can coordinate activities and increase efficiency.

**Trust.** While trust decreases the transaction costs of any exchange and increases many of its benefits (Krackhardt 1992) it must be treated carefully with regard to brokers. As successful con artists know, the first step in taking the mark is building trust. However, brokers are advisable when the first actor feels they cannot trust the second one. The dilemma is how to know which brokers to trust and how to make arrangements. We are reticent to interact with people we do not trust and there is often little information upon which to base trust in a new connection. However, we may use a broker when we trust the broker more than the other actor. For example, PayPal helps E-bay overcome the inherent mistrust of buying from, or selling to, a stranger. I trust E-bay more than I trust the stranger.

### **Conclusions**

This chapter begins with the question of whether it is wise to be the first or second actor in a network instead of the broker. This question becomes particularly important when comparing the broker and closure strategies, and their resulting effects on social capital at both the individual and group level. The two strategies offer different benefits,

involve varying risks, and play to contrasting human tendencies. We just need to decide which one fits our particular needs.

The closure strategy, connecting to friends of a friend, appears to be the natural outcome of our preferences for homophily – connecting to similar others. Employing it seems to involve little more than recommending that we follow our instincts. It produces closed networks that provide for ease of monitoring, sanctions, and building trust and norms of reciprocity. While this strategy creates social capital within the group, it does little to promote social capital across groups. As a result, it may not provide the diverse, non-redundant information that may be necessary for change.

By contrast, the broker strategy requires connecting to brokers, an action which can seem risky. Using this approach means we must deliberately step away from homophily; at the same time, we need to recognize that we may run into an unethical broker who will take advantage of us. Nevertheless, the broker strategy provides non-redundant information and opportunities for creativity and can create bridges across groups that serve to integrate society. However, the possible benefits of bridges across small groups, providing closure within larger groups, may depend on the actions taken by the broker. Opportunistic behavior of maintaining the disconnect and playing one party off against the other, does not integrate society. The broker who chooses this opportunistic behavior must sever ties and move on to other clusters. On the other hand, connecting previously unconnected parties does promote integration and the benefits of closure as well as innovation. And reputation and referrals may be the key mechanisms and motivation for brokers to connect alters. Referrals do not require closed systems, but acting on referrals

is a closure strategy. Both may be key mechanism in promoting closure in the network and social capital at the collective level.

Just as homophily may be less a “strategy” than a natural tendency, brokerage may be more accidental than strategic. In our normal day-to-day activities, we meet new people. This is accidental brokerage and likely represents the majority of our brokerage opportunities. We then make choices about future interactions and introducing these new contacts to our friends and acquaintances. Such decisions may not be calculated, but they help create the social structure that becomes social capital.

## References

- Adler, P.S. & Kwon, S. 2002. Social capital: Prospects for a new concept. *Academy of Management Review*, 27: 17-40.
- Baker, W.E. 1994. *Networking smart: How to build relationships for personal and organizational success*. New York: McGraw-Hill.
- Brass, D.J. 1984. Being in the right place: A structural analysis of individual influence in an organization. *Administrative Science Quarterly*, 29: 518-539.
- Brass, D.J. 1985. Men's and women's networks: A study of interaction patterns and influence in an organization. *Academy of Management Journal*, 28: 327-343.
- Brass, D.J. 1995. Creativity: It's all in your social network. In C.M. Ford & D.A. Gioia (Eds.), *Creative action in organizations*, 94-99. Thousand Oaks, CA: Sage.
- Brass, D.J. & Burkhardt, M.E. 1992. Centrality and power in organizations. In N. Nohria & R. Eccles (Eds.), *Networks and organizations: Structure, form, and action*, 191-215. Boston: Harvard Business School Press.
- Brass, D. J., Butterfield, K.D., & Skaggs, B.C. 1998. Relationships and unethical behavior: A social network perspective. *Academy of Management Review*, 23: 14-31.
- Brass, D.J., Galaskiewicz, J., Greve, H.R., & Tsai, W. 2004. Taking stock of networks and organizations: A multilevel perspective. *Academy of Management Journal*, forthcoming.
- Burt, R.S. 1992. *Structural holes: The social structure of competition*. Cambridge, MA: Harvard University Press.
- Burt, R.S. 2000. The network structure of social capital. In B.M. Staw & R.I. Sutton (Eds.), *Research in Organizational Behavior*, 22: 345-431.
- Burt, R.S. 2004. Structural holes and good ideas. *American Journal of Sociology*, 110: 349-399.
- Burt, R.S. 2005. *Brokerage and closure: An introduction to social capital*. Oxford: Oxford University Press.
- Burt, R.S. 2006. Second-hand brokerage: Evidence on the importance of local structure for managers, bankers, and analysts. In press, *Academy of Management Journal*.

- Chung, S., Singh, H., & Lee, K. 2000. Complementarity, status similarity, and social capital as drivers of alliance formation. *Strategic Management Journal*, 21: 1-23.
- Coleman, J. 1990. *Foundations of social theory*. Cambridge, MA: Harvard University Press.
- Fernandez-Mateo, I. 2007. Who pays the price of brokerage? Transferring constraint through price-setting in the staffing sector. *American Sociological Review*, forthcoming.
- Gulati, R. 1995. Social structure and alliance formation patterns: A longitudinal analysis. *Administrative Science Quarterly*, 40: 619-652.
- Gulati, R. & Gargiulo, M. 1999. Where do interorganizational networks come from? *American Journal of Sociology*, 104: 1439-1493.
- Granovetter, M. 1973. The strength of weak ties. *American Journal of Sociology*, 78: 1360-1380.
- Granovetter, M. 1985. Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, 91: 481-510.
- Ibarra, H. 1992. Homophily and differential returns: Sex differences in network structure and access in an advertising firm. *Administrative Science Quarterly*, 37: 422-447.
- Kilduff, M., & Krackhardt, D. 1994. Bringing the individual back in: A structural analysis of the internal market for reputation in organizations. *Academy of Management Journal*, 37: 87-108.
- Knoke, D., & Burt, R.S. 1983. Prominence. In R.S. Burt & M.J. Miner (Eds.), *Applied network analysis: A methodological introduction* (pp. 195-222). Beverly Hills, CA: Sage.
- Koput, K., & Powell, W. W. 2003. Organizational growth and alliance capability: Science and strategy in a knowledge-intensive industry. Unpublished paper. University of Arizona.
- Krackhardt, D. 1992. The strength of strong ties: The importance of philos in organizations" In N. Nohria and R. Eccles (eds.), *Networks and organizations: Structure, form and action*. 216-239. Boston MA: Harvard Business School Press.
- Labianca, G. & Brass, D.J. 2006. Exploring the social ledger: Negative relationships and negative asymmetry in social networks in organizations. *Academy of Management Review*, 31: 596-614.

- Lin, N. 2001. Building a network theory of social capital. In N. Lin, K. Cook, & R.S. Burt (eds.), *Social capital*. New York: Aldine de Gruyter.
- McPherson, J.M., & Smith-Lovin, L. 1987. Homophily in voluntary organizations: Status distance and the composition of face-to-face groups. *American Journal of Sociology*, 52: 370-379.
- McEvily, B., & Zaheer, A. 1999. Bridging ties: A source of firm heterogeneity in competitive capabilities. *Strategic Management Journal*, 20: 1133-1156.
- Mehra, A., Kilduff, M., & Brass, D.J. 1998. At the margins: A distinctiveness approach to the social identity and social networks of underrepresented groups. *Academy of Management Journal*, 41: 441-452.
- Mehra, A., Kilduff, M., & Brass, D.J. 2001. The social networks of high and low self-monitors: Implications for workplace performance. *Administrative Science Quarterly*, 46: 121-146.
- Nahapiet, J. & Ghoshal, S. 2000. Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23: 242-266.
- Obstfeld, D. 2005. Social networks, the tertius iungens orientation, and involvement in innovation. *Administrative Science Quarterly*, 50: 100-130.
- Oh, H., Kilduff, M., & Brass, D.J. 2006. Network ties and business success: The case of Korean entrepreneurs. Paper presented at Networks and Entrepreneurs conference, July, Amsterdam, NL.
- Ostrom, E. 1990. *Governing the commons: The evolution of institutions for collective action*. New York: Cambridge University Press.
- Polodny, J.M. 1994. Market uncertainty and the social characteristics of economic exchange. *Administrative Science Quarterly*, 39: 458-483.
- Podolny, J.M. 2001. Networks as the pipes and prisms of the market. *American Journal of Sociology*, 107: 33-60.
- Provan, K.G., & Wilward, H.B. 1995. A preliminary theory of interorganizational network effectiveness: A comparative study of four community mental health systems. *Administrative Science Quarterly*, 40: 1-33.
- Putnam, R. D. 1995. "Bowling alone: America's declining social capital." *Journal of Democracy*, 6:65-78.

- Ring, P.S. & Van de Ven, A.H. 1992. Structuring cooperative relationships between organizations. *Strategic Management Review*, 13: 483-498.
- Rowley, T.J., & Buam, J.A.C. 2004. Sophistication of interfirm network strategies in the Canadian investment banking industry. *Scandinavian Journal of Management*, 20: 103-124.
- Seibert, S.E., Kraimer, M.L., & Liden, R.C. 2001. A social capital theory of career success. *Academy of Management Journal*, 44: 219-237.
- Simmel, G. 1950. Individual and society. In K.H. Wolff (ed.), *The sociology of Georg Simmel*. New York, Free Press.
- Stuart, T.E., & Podolny, J.M. 1999. Positional causes and correlates of strategic alliances in the semiconductor industry. *Research in the Sociology of Organizations*, 16: 161-182.
- Tsai, W. 2001. Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal*, 44: 996-1004.
- Umphress, E.E., Labianca, G., Brass D.J., Kass, E., & Scholten, L. 2003. The role of instrumental and expressive social ties in employees' perceptions of organizational justice. *Organization Science*, 14: 738-753.
- Uzzi, B. 1997. Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly*, 42: 35-67.
- Watts, D.J. 2003. *Six degrees: The science of a connected age*. New York: W. W. Norton.

