

Social Capital and Social Influence on the Board of Directors

It is often assumed that directors with human capital such as prior management experience or independence from the company are the most influential board members. By contrast, in a survey of all the board members in fourteen companies we found that ties to others in a network of strong ties among those who meet outside of board meetings were more important predictors of social influence than human capital or ties across boards. These ties within the board represent the social capital of members in the form of prior relationships with other directors, ties to others on the board, and membership in cliques within the board's network of ties. These results support a social capital perspective on influence that emphasizes relationships with others on the board as important factors in the social dynamics of board decision-making.

Keywords: governance, social capital, social networks, interlocking directorates

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INTRODUCTION

Scandals at corporations such as WorldCom and Enron have led to a concern with lack of oversight of top management by boards of directors. The major problem in exercising oversight is that CEOs may have overwhelming influence on decisions due to their greater knowledge of the organization. In addition, the board members' desire to agree with the CEO due to personal or financial ties to the company may lead to a lack of scrutiny of top management decisions.

The suggested solution to this power imbalance according to regulators and some board researchers is to alter the composition of the board in terms of having a board composed of highly knowledgeable, independent, and skilled board members that can counterbalance the influence of the CEO and provide oversight of the corporation. In other words, the knowledge and skills of the board or the human capital (Becker, 1975) of the members such as being a prior CEO (Malette and Fowler, 1992), or having the experience to be on the Compensation Committee, or the accounting skill to be on the Auditing Committee, or being independent of the corporation as an outside director (Forbes and Milliken, 1999), or having the expertise to be the chair of the board independent of the CEO (Daily and Schwenk, 1996) should lead to the influence needed for oversight of the corporation. For example, the major U.S. stock exchanges have recommended that a majority of directors be independent of company in the sense of being free of financial ties to the company in order to provide more effective oversight of boards (Director's Monthly, 2003).

The solution to the problem of excessive CEO influence on the board, then, is to adjust the composition of the board and use the human capital of board members to

balance the CEO's influence. Boards, however, have an advisory role as well as an oversight role. The expertise of board members should aid the CEO in making important strategic decisions. Researchers (e.g., Pye, 2002; Westphal, 1999; Zajac and Westphal, 1996) point out that effective boards have an advisory, collaborative role in setting strategy as well as being independent auditors of company performance. In addition, collaboration among board members should enable joint action by the members and increase their influence. These collaborative ties within the board can be thought of as the social capital (Coleman, 1988; Lin, 2001; Nahapiet and Ghoshal, 1998) of members generated by interaction. Investment in social capital, as the ties through interaction of a member with others enable an individual to gain the returns of influence in a group (Brass, 1984) and adds to the influence of a board member (Radin, 2003).

The dynamics of who gains power on the board through human and social capital is not usually pursued in studies of board composition (Forbes and Milliken, 1999; Roberts, McNulty, and Stiles, 2005). It is often assumed in the study of interlocking directorates that having ties to members of other boards leads to influence on the board, yet the process by which this influence is acquired is not examined (Mizruchi, 1996). An outside director is assumed to bring, by both composition researchers and interlocking directorate researchers, a fresh perspective to the board and influence either through work experience or from membership on other boards. Studies of board composition or interlocking directorates, however, have lacked a systematic examination of how directors acquire influence within the board.

In this study we took a multi-method approach to address the question of who gains power in the boardroom in terms of the use of human and social capital by board

members. First, we conducted a survey of a sample of fourteen boards to discover what leads to influence in the boardroom. We used a human and social capital perspective on influence in the boardroom, considering the effects of ties to others as well as the human capital of board members, such as their independent selection, that leads to influence on the board. We also considered the effect of influence on the structural arrangement of the CEO being the chairman as compared to having a separate chairman of the board.

Quantitative measures such as networks of ties can be an ambiguous measure of social capital without an examination of the use of those ties (Devine and Roberts, 2003; Van Deth, 2003), and few studies of boards have blended quantitative measures of ties with a qualitative examination of what those ties mean to board members. Accordingly, we conducted interviews with CEOs, chairpersons, and board members to supplement our quantitative results. Our combination of quantitative and qualitative analysis leads us to conclude that the social capital of board members in the form of ties to others on the board is a much stronger factor in gaining influence on the board as compared to the human capital of board members such as management experience or committee memberships or the social capital of members in terms of ties across boards. We use this knowledge to suggest action in terms of the public concern for effective boards.

THEORIES OF BOARD PERFORMANCE AND INFLUENCE

There are a number of perspectives on board performance. From a legal perspective the board is supposed to provide oversight of management's actions. Board members can be held legally liable for failing to make informed decisions in the best interest of the corporation (Johnson, Dailey and Ellstrand, 1996). By contrast, from a managerial hegemony viewpoint, the CEO and corporate management are assumed to

dominate boards (D'Aveni and Kesner, 1993; Kosnik, 1987; Mallette and Fowler, 1992, Stiles, 2001). Boards are considered to agree with top management's decisions because they have been selected by management or lack knowledge of the workings of the corporation, and they do not want to endanger their status and board compensation by disagreeing with management. Similarly, agency theory (Fama and Jensen, 1983, Young, Stedham, and Beekun, 2000) argues that board members may be ineffective in exerting influence on decision-making. Agency theory assumes that the relationship between management and stockholders is a contract between agents and principals. Agency problems arise because management is separated from the wealth effects of ownership, and management will act to maximize its own wealth and power, sometimes at the expense of the stockholders. Thus management will indulge in expensive perks such as corporate jets, and pursue short-term investment decisions that maximize their compensation at the expense of longer run profitability. In this perspective, boards of directors are important monitors of corporate behavior and can rein in opportunistic behavior on the part of top management by providing incentives to management to pursue appropriate stockholder goals.

From either the hegemony or agency perspective, it is considered important to have outside, independent directors on the board to resist potentially opportunistic behavior from executives (Kosnik, 1987, Frankforter, Berman and Jones, 2000). Hegemony theorists consider poor board monitoring to be due to lack of independence of directors, thus independent directors, as those who were not picked by the existing management, or who do not serve or have not served in the company's management, or do not have a business relationship with the company, should be more able to exert

influence on decisions as compared to dependent directors who have some obligation or business interest in the company. Similarly, from an agency perspective, independent board members are considered less likely to collude with management for personal benefit (Fama and Jensen, 1983).

Given the concern for the independence of directors, the standard empirical procedure for considering the ability of board members to exert influence is to look at the ratio of outside to inside board members (Johnson, Dailey and Ellstrand, 1996), under the assumption that more outside directors should indicate an ability of the board to monitor top management performance. The results of this research have been mixed, and questions have been raised about the operationalization of the insider/outsider distinction (Daily, Johnson, and Dalton, 1999).

The efficacy of having outside board members can also be questioned (e.g., Hilmer and Donaldson, 1996, Westphal, 2002). Kosnik (1987), for example, found that boards that resisted greenmail, that is, privately repurchased stock at an above market price, a financial maneuver not in the best interest of the stockholders, had more outside directors on the board. Westphal (1999), however, found that having more inside directors that can provide advice and counsel increased the economic performance of firms. By contrast, Finkelstein and Mooney (2003) noted that 86 percent of Enron's directors and 78 percent of WorldCom's directors were outside directors. Hulbert (2003) cited research indicating that companies with more outside directors had lower financial performance compared to firms with more inside directors.

These conflicting results can be explained by considering that correlating structural board characteristics such as the outsider-insider ratio to the economic

performance of the firm ignores the social process of decision-making that takes place in the boardroom (Forbes and Milliken, 1999; Zahra and Pearce, 1989). Due to the difficulties of directly studying boards of directors in the past, most researchers have had little to say about the process of decision-making on boards (Daily, Dalton, and Cannella, 2003; Letendre, 2004). As a result, most of the research and policy prescriptions lack a consideration of the board of directors as a group making decisions.

The study of how ties between organizations lead to influence on the board has also suffered from the same lack of information on the informal dynamics of the board. As Mizruchi (1996) has discussed, ties between directors across organizations can be established for the purpose of collusion, cooptation, legitimacy, career advancement, social cohesion, or some combination of these motives. Mizruchi notes “As critics have pointed out (Hirsch, 1982; Stinchcombe, 1990; David and Powell, 1992; Pettigrew, 1992), however, very little is known about the processes through which interlocks might affect corporate behavior” (1996, p. 286). The examination of internal influence processes can help to clarify whether interlocking ties among board members across organizations leads to influence.

A SOCIAL CAPITAL PERSPECTIVE OF BOARD INFLUENCE

In contrast to the view of regulators who focus on the human capital of directors such as their independence discussed above, we propose a social as well as human capital perspective on board influence. In this perspective, ties between the CEO and other directors, ties among directors within the board, or ties among directors across boards provide the social capital that leads to a sharing of influence on decisions.

Defining Social Capital

Social capital has been defined in a number of ways. We define social capital, following Lin (2001, p. 6) as an “*investment in social relations with expected returns*”. (Italics in the original.) This definition is similar to Burt (2005, p. 5) who said: “The advantage created by a person’s location in a structure of relationships is known as social capital”. We operationalize this investment in social relations as the ties that board members have to others.

It is important to consider the difference between our narrow, specific definition in terms of investment in social relations measured as the ties to others to other definitions in the field. Social capital has been associated with civic engagement (Putnam, 1996), educational attainment (Coleman, 1988), informational and control advantages of an actor in a network (Burt, 1997), and a myriad of other issues. It has been defined as “features of social life” such as networks, norms, and trust that enable people to pursue “shared objectives” (Putnam, 1996, p. 56). Similarly, Coleman has argued that the obligations owed to an individual, trustworthiness of individuals, the potential for information through social relations, and norms that dictate that individuals will act to benefit the collectivity are all considered part of the social capital of a society (Coleman, 1988). Many other definitions could be offered. (See Schuller, Baron, and Field, 2000 for an extensive discussion of social capital.)

Such broad definitions of social capital can lead to definitional confusion and raise the question of causal circularity. For example, is social capital a characteristic of civic engagement or a way to develop civic engagement in a society? Or, is trust as a

component of social capital necessary for participation in civic affairs or an outcome of civic participation? Definitions that lump together social relations and potential causes and outcomes such as norms of trust or social obligations lead to a confusing causal circularity.

Further, Portes (1998) has pointed out that there has been controversy as to whether social capital is a collective or individual good, and, indeed, it can be considered both a collective and individual good. For example, resources such as trust are embedded in a network of relations that can benefit the collective as well as the individual. The problem, as Lin (2001) points out, is that collective goods such as trust or norms can be conflated with social ties, leading to definitional and conceptual confusion. Lin (2001) warns that when social capital is separated from its roots in individual interactions and networks, it can become a broad term encompassing many desirable traits in a society. The solution, according to Lin (2001, p. 10) is to make sure that social capital, as a “relational asset” is distinguished from collective assets such as culture, norms or trust.

Social Capital as Network Ties on the Board

Portes (1998) has suggested that to avoid tautological definitions and causal circularity it is necessary to make distinctions between who has social capital, the sources of social capital, and the resources generated by social capital. In this spirit, network theorists have simplified the concept by narrowing the focus to social relations and the outcomes of these relations

This network perspective, with a more narrow and precise definition of social capital as the social ties of the individual enable us to distinguish the creation of ties from outcomes such as trust. As Kramer and Cook (2004) have noted, ties between individuals

may lead to consensus and joint outcomes but not necessarily to trust. For example, Raymond (2006), in his study of individuals working towards environmental goals, found that self-interested economic motivation led individuals to cooperate but did not generate trust “to the point of once requiring metal detectors” at meetings (Raymond, 2006, p. 49). In the case of boards of directors, it is normally in the interest of board members to cooperate because they will benefit as investors or as board members generously paid to solve problems, but the development of networks within the board does not necessarily lead to trust.

The foregoing leads us to concentrate on the relations with others as the social capital of an individual and the returns to social capital as influence for the individual. This perspective on social capital leads us to consider the benefits of social relations on the board, as well as the human capital of individual board members. Board members are assumed to be valuable advice givers and collaborators, and position in a network of ties on the board will affect how much influence a board member can exert on decisions. This perspective provides a necessary corrective to the model of independent directors that emphasizes control over the CEO, but neglects the importance of board influence on strategic decisions (Rindova, 1999; Westphal, 1999).

A social capital perspective focusing on network ties seems particularly appropriate for understanding the social dynamics of the boardroom. Boards of directors raise issues of power and influence that have been studied by network researchers in other organizational contexts (e.g., Brass, 1984; Krackhardt, 1990). Network position, for instance, has been found to affect social influence in organizations (Ibarra and Andrews, 1993). Boards face decision making under uncertainty and ambiguity, and proximity of

network position has been found to lead to consensus in ambiguous situations in organizations (Rice and Aydin, 1991).

Boards are social institutions in this social network model. There is assumed to be a negotiated social order on boards as in other social institutions that enables board members to interact and reach agreements. This “negotiated order” (Strauss, et al., 1963) makes organization possible. These negotiations follow the structural arrangements of the organization, and are conducted according to the cultural understandings of the organization. As an example of cultural understandings on the board, Hill, in one of the few studies of the social organization of boards of directors, interviewed 42 directors from 11 large British companies and discovered that “consensus was the norm” of the organization (Hill, 1995, p. 253). According to Hill: “In the eyes of their members, boards are unitary bodies, small teams of colleagues working together on a consensual basis and with collective responsibility for the direction of their organizations where the language of teamwork, collegiality, and consensus was pervasive” (Hill, 1995, p. 256). This collegial perspective is not unique to British firms and has been reinforced by a number of theorists and researchers, e.g., Forbes and Milliken, 1999; Koenig and Gogel, 1981; Pye, 2002; Zajac and Westphal, 1996).

Ties between board members are assumed to be an essential mechanism for the negotiation of this consensus and order on the board. Networks of ties are considered to be important for the negotiating and structuring of social relations (Fine, 1984). These networks within the board have been neglected in board studies. Virtually all empirical studies of board member ties have concentrated on interorganizational ties, under the assumption that ties across boards of directors lead to the sharing of resources or

strategies across organizations (Mizruchi, 1996, 2004; Scott, 1991). In this social capital model, by contrast, we concentrate on the ties within the board of directors that lead to influence on decisions. Just as interactions between companies often become socially embedded in networks of ties that lead to trust through interaction and reputation (Granovetter, 1985; Gulati and Garguilo, 1999), networks of ties within the board facilitate the social negotiation of order that allows the board to function.

These ties also lead to power. Position in a network of ties in an organization has long been acknowledged as a source of influence in the organization. Lower participants in the organization can use their access to people and information, for example, to gain more influence than their formal position would dictate in the organization (Mechanic, 1962). The centrally located and those with many ties are usually found to be the most powerful actors in an organizational network (Brass, 1992). Thus having more ties on the board should lead to influence.

Not everyone is connected in the same way to the network of board ties, and not everyone has the same amount of power on boards. Boards, like any group, become socially differentiated, and an elite “inner board” may form around the CEO or chairman. As Hill noted in his study of British boards of directors: “Boards are internally differentiated and fairly complex social organizations, despite their small size and the image they present to the outside world of being homogeneous and unified. In every case there is an inner elite based on the chief executive and the chairman” (Hill, 1995, p. 273). This inner elite may form a clique or “dominant coalition” (Thompson, 1967; Stevenson, Pearce and Porter, 1985) that exercises the most power on the board.

Board structure is also assumed to affect influence on the board. Boards can be structured with the CEO also acting in the “dual” position of chair, or the CEO can be separated from the chairman role. Formal organizational structure affects the informal ties between actors (Stevenson, 1990), and the differences in structure on the board are assumed to affect ties and influence on the board in this study.

The Human Capital of Board Members

We consider the knowledge and skills that members bring to the board to be human capital as distinguished from relational ties developed with other board members as social capital that lead to benefits (Belliveau, O’Reilly, and Wade, 1996; Maman, 2001). Our definition is in the spirit of the human capital concept as originally developed to highlight the skills and experiences of individuals as being as important as physical capital in the development of nations (Becker, 1975). Originally human capital was defined to include investments in “schooling, on-the-job training, medical care, migration, and searching for information about prices and incomes” that “improve skills, knowledge, and health” (Becker, 1975, p. 9). Over time the definition of human capital has narrowed to become “almost universally defined in terms of skills, qualification or length of schooling” of an individual (Schuller, Baron, and Field, 2000, p. 24). Although in policy discussions human capital is often measured by educational qualifications, we used the term in its original broader sense: the experience and skills that members bring to the board.

Although we could consider position on the board such as committee membership separately as positional capital, in the interest of parsimony we regard committee membership as an indicator of the skills and experience or the human capital of the board

member. Similarly, independence of the director can be considered a form of human capital brought to the board. It is often assumed in the board literature that human capital in terms of the experience, background, or committee membership of actors will affect their ability to influence others (Hilman and Dalziel, 2003; Lynall, Golden and Hillman 2003; Johnson, Daily, and Ellstrand, 1996).

Independent directors. Some board researchers and regulators assume that directors who are unencumbered with social obligations to others or financial contracts with the company will be influential in decision making compared to the dependent director (Nicholson and Kiel, 2004; Nowak and McCabe, 2003). Independent directors can be defined in many ways. Here we define an independent director as not being appointed by the CEO, not being a current or former member of management, and having no current or prior business relationship with the company. Dependent directors will be less influential, according to the regulatory model, because of their social or financial obligations to the company.

Prior CEOs and influence. Another factor that may lead to influence on the board is whether the board member is a prior CEO. Prior CEOs should have the expertise and knowledge to be influential on the board. Board members who have executive experience may be an important resource for advice and influence due to their experience as executives in other companies (Kosnik, 1987).

Committee memberships. Membership on committees should also be a source of power on the board by structural design. Committees with financial oversight responsibility such as the audit committee and members of the compensation committee

who set the top manager's compensation package and financial incentives should be particularly powerful.

The foregoing characteristics of board members should lead to influence on the board. Hence:

Hypothesis 1: The human capital of board members associated with being independent directors, prior CEOs, or on the audit or compensation committee will increase a board member's influence on decisions.

Social Capital as Ties with Other Board Members

Having relationships with others, whether prior relationships, network ties, or membership in a clique, are key elements of the social capital perspective. From a social capital perspective, having prior relationships with others will lead to the ability to speak up and influence decisions.

The social capital model assumes that ties and cliques provide conduits for social influence in groups. Board members who establish ties to others will increase their influence, and those embedded in clusters of ties, here referred to as cliques, will be able to exert more influence. As discussed above, a dominant coalition may form on the board, and membership in this coalition may lead to influence. As Coleman (1988) and Burt (2005) among others have noted, closure of ties can lead to the development of social capital in a coalition through the generation of norms and trust. Another generator of social capital in networks is brokerage or being in a position to connect otherwise disconnected individuals and groups (Burt, 1992, 2005). We do not pursue brokerage as a source of social capital here because all board members are somewhat connected, and the boards studied here are relatively small, ranging from 5 to 9 members, making it likely

that subgroups are not completely isolated from each other, reducing the effects of brokerage. Hence:

Hypothesis 2: Having more prior relationships with other board members, having more current ties to other board members, or being a member of a clique with board members will increase a board member's influence on decisions.

Similarly, having ties to those on other boards could lead to influence. (We are indebted to an anonymous reviewer for this hypothesis.) Although it may be that ties to board members in other companies serves primarily as a conduit for information (Mizruchi, 1996), ties to other boards may lead to influence on the focal board. Thus:

Hypothesis 3: Having more relationships with board members in other companies will increase a board member's influence on decisions.

Board Structure and Board Influence

Boards can be structured around the CEO in two ways in the United States. Either the CEO can occupy the dual positions of chairman of the board and CEO, or two different individuals can occupy the two positions. In a board with a dual structure, that is, a board where the CEO occupies both positions, the CEO is assumed to be more powerful than in a non-dual structure. Internationally, board structure can vary. There are a number of variations, such as two-tiered structures with a managing board of executives and a supervisory board, e.g., Germany and Austria (Denis and McConnell, 2003). It is beyond the scope of this paper to consider these variations in structure.

There has been little research on how the CEO occupying both positions may alter internal board decision processes in the U.S. We assume that the board structure acts as a moderator of the paths between member characteristics, ties, and influence. We assume that the CEO has more power in the dual structure as compared to the non-dual model

where the CEO shares power. This power imbalance should attenuate the effects of human capital on influence on dual boards. In a non-dual structure, those having a formal position such as committee membership and those with human capital such as being an independent director should be able to exert more influence than in situations where the CEO has to greater power provided by being both the CEO and the chair. Processes of interaction between the CEO and the lower status members in the dual structure are assumed to produce many ties to the CEO (Gould, 2002), leading to clusters of ties or cliques around the CEO. Thus, we hypothesize that when the CEO occupies both governance positions there is more reliance on ties and cliques to exert influence and less reliance on committees as compared to the non-dual structure.

The foregoing implies that the effect of board member characteristics on influence may be overshadowed by the power of the CEO in the dual structure. Being an independent director, a prior CEO, an audit or compensation committee member should have less of an effect in the dual structure. However, ties and cliques should lead to more influence in the dual structure as compared to the non-dual structure. Accordingly:

Hypothesis 4: Board structure will moderate the effects of member characteristics, ties, and cliques on influence.

METHOD

The data required to discover how boards operate was obtained primarily through the direct study of boards and their members. While much has been written about the difficulty of directly studying corporate elites and the accompanying barriers and obstacles, the reality of this challenge became apparent in the process of identifying boards willing to participate in this study. A review of the literature which seeks to

understand the internal dynamics of boards through empirical research uncovered few studies. Prior studies have relied primarily on archival data (e.g., Haunschild, 1993; Westphal and Zajac, 1995, Westphal and Zajac, 1997; Westphal and Milton, 2000), though random surveys mailed to a large population of CEOs and occasionally directors have also been used (e.g., Beekun and Ginn, 1993; Westphal, 1998, 1999). The random survey approach has yielded response rates of 29 to 44 percent, and the research rarely involves any direct contact with board members.

In this study potential companies were selected by initially contacting individuals from one of the co-authors' pre-existing networks in the business community. Access to senior executives was facilitated as a co-author was a former executive and board member. In many cases a contact would make an introduction to a third party with a favorable endorsement to increase the likelihood of participation.

During the process of finding research sites, a number of companies refused participation because of the sensitive nature of the issues that boards routinely discuss and the number of crises they routinely face. Sixty companies were contacted with forty-six refusing participation in the study. A co-author spoke with several CEOs who refused to participate, and the CEOs often cited environmental issues, such as a rapid decline in capital markets, as the cause of their inability to focus on the study, or as reason why time was at a premium.

There was a mix of U.S. public and public companies in this convenience sample, with the majority being funded by venture capital firms. The board structure was split between dual and non-dual structures. These companies were small to medium in size with sales in 2002 varying from \$8.3 million to \$872 million among the seven companies

from which we were able to get financial information. These companies were smaller than the Fortune 500 companies that are usually studied by board researchers because archival data is readily available. It is important to note, however, that there are over 10,000 publicly traded companies and over 110,000 privately owned companies in the U.S. Although the sample is non-random, it may reflect the dynamics of the typical company in the U.S. more closely than the Fortune 500.

Insert Table I about here.

A survey was given to the board members and CEOs. Eighty-four percent of the 61 directors and one hundred percent of the 14 CEOs responded to the questionnaire for a total response rate of 87 percent. There was no statistical difference between respondents and non-respondents in terms of the number of people talked to outside of board meetings, influence on the board in terms of ratings of others, membership in a dual or non- dual board structure, or membership in a clique as defined by others. (All variables are defined below).

For the purposes of this paper, we concentrate on the network question: "How often do you talk to these people about business issues outside of board settings?" The respondents were given a list of other board members and asked to rate their interaction on a five-point scale from never to every week. We averaged the responses of two respondents who indicated they talked to each other, and coded a response greater than 3.5, once a month or more often, as one, and zero otherwise, so that we could concentrate on the strong ties between board members as social capital which would be more likely to lead to influence. If a respondent cited another who did not respond to the question, we

assumed a tie existed between the two board members. We assumed a tie existed among board members in 10 out of 65 cases or 15 percent of the respondents. Ninety-seven percent of those who answered the question and responded that they talked to each other once a month or more often cited each other, so our assumption of symmetric responses seems justified. Ties to others were defined as the number of ties to others cited. The number of ties was normalized across the 14 matrices of board ties by creating a ratio of the number of ties shared divided by the number of possible ties on a given board. A clique was defined as a maximal complete subgraph in which a clique is a subset of points that are connected to each other and not connected to another clique. This is the “widely held view” of the definition of a clique (Scott, 2000) and captures the idea that subsets of board members may exist that frequently communicates among each other outside of board meetings. Although there are many ways to measure subgroups within networks (Scott, 2000), we wanted to focus on clusters of directly connected individuals, as direct connections between people are hypothesized to lead to exchanging resources in relationships (Nahapiet and Ghoshal, 1998.) A clique member was coded by a dummy variable defined as one if a board member was in a cluster of three or more others with completely interconnected ties and zero otherwise.

Being a prior CEO, being on the compensation or audit committee, and having a prior relationship with other board members were all dummy variables coded one if the board member had the characteristic and a zero otherwise. An independent director was defined as someone who was not selected by the CEO, did not have a prior or current business relationship with the company, and was not a member of management. Independent director was a dummy variable coded one for an independent director and

zero otherwise. Number of memberships on other boards was coded as reported by the respondents.

The dependent variable measuring influence on the board was based on responses to a request to “rate each person’s influence in business decisions in general”. Responses could range on a one to five scale from no influence to significant influence. An individual’s influence score was the average of everyone else’s ratings of the director. Reputational measures of influence have long been used to measure influence in organizations (Galaskiewicz, 1979, 1985; Shrum and Wuthnow, 1988) and they have been found to be reliable measures of influence (Summers, Seiler, and Wiley, 1970).

As a measure of the validity of the influence measure, we compared the average influence score obtained from others to self-reported responses to a question of what role the respondent played in a significant issue that came before the board in the last year. Those who described themselves as leaders had the highest influence scores as determined by others, and those who described themselves as opposed, neutral or supported the leader had lower scores. This issue was also rated as generating “strong” or “very strong” debate by 63 percent of the board members, indicating that the issue was controversial and not easily decided. This suggests that influential board members were not influential simply because they agreed with the majority or the CEO, and the boards were not so driven by the norm of consensus that everyone agreed with each other and stifled debate.

It is hypothesized that ties lead to influence, and an argument could be made that the converse is also true: the influential gain more ties over time. We assume that ties lead to influence based on the social capital theory hypothesis that ties lead to benefits

such as influence (Portes, 1998), studies indicating that work related ties are “goal-directed” (Kilduff and Tsai, 2003, p. 89), that people in organizations manipulate their instrumental ties to garner influence (Brass and Burkhardt, 1993; Burt, 1992), and that, over time, the causal direction is more strongly from ties creating influence in organizations rather than the reverse (Stevenson, Bartunek, and Borgatti, 2003). We did have data on whether the board member had ties with others on the board before joining the board. We created a variable for normalized prior ties based on the number of prior ties for the board member normalized for the number of ties possible on the board. We used this variable as an instrumental variable (Duncan, 1975; Hanushek and Jackson, 1977) in a non-recursive path model of the reciprocal effects of ties and influence to assess the reciprocal effects of the variables. We recognize, however, that our assumption of stronger causation from ties to influence rather than the reverse is only exploratory, tentative, and subject to revision as studies are done with data collected over time.

RESULTS

Influence on the Board

For the analysis the 14 boards were pooled together based on the calculation of the intraclass correlation coefficient in a random effects hierarchical linear model (HLM) (Raudenbush and Bryk, 2002) that considered effects at the individual board member level and at the group level of boards. Analogous to an ANOVA, the intraclass correlation coefficient measures the variance due to being in a group over the total variance (Raudenbush and Bryk, 2002). The intraclass correlation coefficient was less than 1 percent, indicating that less than one percent of the variation in influence was due to variation between boards, indicating that specific board membership could be

discounted as a factor affecting influence. A two level HLM model accounting for board membership produced substantively identical results to the pooled regression results discussed below.

Our focus was on board members and how they gain influence on the board. Thus the analysis was based on the 51 respondents who were board members and excluded the 14 CEOs, although certain variables such as the normalized number of ties to others, membership in cliques, and the average rating of influence includes input from the CEOs. Needless to say, CEOs generally have overwhelming influence due to their position that enables them to create corporate initiatives and to set the agenda for meetings.

Table II shows the correlation matrix of the variables for the pooled boards and Table III shows the results of considering the hypotheses for the pooled boards. The first column of Table III shows the effects of human capital, i.e., being an independent director, being a prior CEO, being on the compensation committee, being on the audit committee, or having a prior relationship with other board members, on influence in decision-making. In the second column social capital in terms of the number of normalized ties to others is added to the regression, and, in column three, social capital in terms of being a clique member is added to the model. Having ties and being in a clique are obviously correlated, although not perfectly, as the Pearson correlation coefficient of .70 in Table II indicates. These two measures reflect different substantive phenomena so they are treated separately in the equations of Table III. The substantive differences between the two phenomena are clarified in the interviews discussed below.

Insert Tables II and III about here.

It can be seen in Table III that being an independent director did not have a significant effect on the influence of a director across all models. Being a former CEO also did not have an effect on influence in most cases. The hypothesis that committee membership leads to influence received mixed support. Being on the compensation committee did have a positive effect on influence. Membership on the audit committee did not have consistent effects, only being significant when number of ties was controlled for in column two. Hypothesis 2, the key social capital hypothesis, that having prior relationships with others, and having ties to others or having clique membership leads to influence, received strong support. Having a prior relationship with other directors before joining the board was also a consistent predictor of influence across models.

We are led to conclude that Hypothesis 1, the human capital of a board member would lead to influence, had mixed support. The independence of the director was not a strong predictor of influence, at least on these boards. The expertise involved in being a former CEO did not have an effect either. Compensation or Audit Committee membership did have some effect, but the largest effects are from the social interaction factors of prior relationships to others, current ties to others on the board, or being on a clique on the board. It would appear that influence depends somewhat less on human capital as compared to social capital. This result is reinforced when testing Hypothesis 3, that membership on other boards would lead to influence. In analysis not shown, the number of memberships on other boards was not a significant predictor of influence on the board when controlling for the other human and social capital variables discussed above.

The Reciprocal Effects of Ties and Influence

We have assumed that ties lead to influence, but it is probable that the reverse also occurs in that board members want to be connected to the influential. We did not have the opportunity to collect the data over time that would enable us to untangle the relationship. We did ask the respondents to list the board members with which they had prior ties before joining the board. From this data we created a variable measuring the number of prior ties for a board member normalized for the number of people on the board. We used prior ties to predict current ties and influence on the board in an analysis not shown. Prior ties were a significant predictor of current ties but not influence, controlling for current ties. This suggests that current ties are a mediator of the effects of prior ties on influence. We then created a non-recursive model of the reciprocal effects of current ties and influence, using current ties as a mediator of the effect of prior ties on influence. We estimated the model using maximum likelihood estimation with AMOS 4.1. Prior ties were used as an instrumental variable to allow the estimation of reciprocal paths in the model. The results are shown in the Figure. (We do not show membership in the audit committee here, as it was of varying significance in the OLS regression model. Including it did not affect the results.) As can be seen in the Figure, the normalized number of ties of a board member has a strong significant effect on influence, whereas the reciprocal effect of influence on ties is not significant. Prior ties exert a significant influence on current ties, and, once the number of current ties is controlled for, many of the relationships with other variables become insignificant, but being on the compensation committee and being a prior CEO become significant, similar to the results in Table III.

Insert Figure about here.

This analysis can only be considered suggestive due to the small sample size and the cross-sectional nature of the data. The fit indices are reasonable in that the chi-square measure of fit is small, and the Incremental Fit Index (IFI) and the Comparative Fit Index (CFI), which range from 0 to 1, are high at .99 for both measures. It is known, however, that chi-square tests in structural equation models are smaller for small sample sizes, and fit indices can be affected by sample size, although the IFI and CFI were created to adjust for the effects of sample size on fit indices (Byrne, 2001). There is no definitive rule for sample sizes in structural equation modeling, but we did have a sample size of 51, slightly more than the minimum size of 50 advocated by Hayduk (1987). We also conducted bootstrap sampling by iterating the estimation process 200 times, and found the bootstrap estimates of the standard errors did not vary significantly from the original estimates, providing evidence that the variables are approximately normally distributed (Byrne, 2001). We also considered the effects of ties on influence in our interviews discussed below.

Board Structure and Influence

Turning to Hypothesis 4, the question of the impact of board structure on influence, in Table 4 we can see differences in predictors of influence depending on board structure. Due to the small sample sizes these differences between equations are only suggestive, but a statistical test of the interaction of a dual/ non-dual dummy variable with each variable in an equation using the entire data set was conducted to statistically test for differences in the coefficients across the two equations. This test is also a test of moderation (Baron and Kenny, 1986). Results are discussed below.

In contrast to the overall analysis of Table III, being an independent director did have an impact on a board member's influence in the dual structure where the CEO was also the chair. (The difference in independent director coefficients across the two equations was significant at the $p < .05$ level.) The interaction between being an independent director and having ties was not significant, in an analysis not shown, indicating that being independent or having ties are two independent factors leading to a board member's influence in the dual structure.

Insert Table 4 about here.

Looking at the bottom panel of Table 4, being an independent director did not lead to more influence when power was shared between a chair and CEO. This result was contrary to our expectation that independent directors would be more able to exert influence on boards where power is shared by the CEO and the chair. These results suggest that a dependent director may be more dependent on the CEO and less influential in the dual structure as compared to the non-dual structure. On the one hand, it is likely that they were picked by the CEO or have close ties to the company, and are less likely to be influential, compared to the independent directors. On the other hand, in a non-dual structure, with diffused power between the CEO and the chair, the independence of the director would appear to be less important, suggesting that influence is more equally shared between independent and dependent directors when power is shared between a CEO and chair.

Being on a committee did not have an effect on the dual structure model, so it was dropped from the analysis. This result suggests that the CEO's power is so strong in a dual structure that committee membership is not important. Being on the compensation

committee did lead to more influence in the non-dual structure, however, suggesting that committee membership, at least on the committee that sets the CEO's compensation, offsets the CEO's power when power is shared between the chair and CEO. (The difference in the compensation committee coefficients with the compensation committee variables in the two equations was significant at the $p < .10$ level.)

Congruent with previous results, having ties to others did lead to more influence regardless of structure, but ties were a less significant predictor of influence in non-dual structure and being a clique member was only a weakly significant source of influence in non-dual structures. (The differences in coefficients for ties to others and clique membership across the two equations were not statistically significant.) Prior relationships with other directors did have more influence in the dual structure model. (The differences in the prior relationship coefficients were significant at the $p < .05$ level.) This suggests that the social capital generated by prior relationships, ties and cliques is more important when the CEO is also the chair, implying that informal meetings and in-groups are more important than human capital and committee memberships in the dual as compared to the non-dual structure. (Being a prior CEO was not significant in the overall model, and was not significant in the sub-models, so it was dropped from the analysis.)

It should be noted that Table 4 also provides support for discounting the alternative hypothesis of a spurious correlation between ties and influence. It could be argued that respondents who listed others as ties also rated them high on influence, and thus the results of Table III are due to the common methods variance of asking both questions in one questionnaire. This is unlikely for several reasons. First, influence was

measured as an average rating of influence by everyone else on the board whether or not they were cited by the respondent as a tie. Second, Table 4 shows that the influence of ties and cliques varies by board structure, albeit that the differences in coefficients across equations were not statistically significant.

Interviews with Board Members

Our quantitative methods employed here can only provide us with a limited view of social capital and influence on the board of directors, and others (Devine and Roberts 2003; Van Deth, 2003) have argued that relying solely on quantitative measures of social capital ignores how these measures may reflect the use of social capital. After examining our quantitative results we decided to conduct semi-structured interviews with some CEOs, board chairs, and board members in an attempt to use multiple methods to triangulate our findings and increase the validity of our conclusions (Brewer and Hunter, 1989).

We were thus able to extend our knowledge of board dynamics beyond our quantitative results. The conventional methodology for studying boards is to use archival data or do a survey and infer the strategies of board members, or to interview a few board members about board processes in general without the benefit of quantitative results. Here we revisited board members once we had generated quantitative results in order to better understand the process of generating board influence.

We were able to interview four respondents from the sample: two CEOs, one board chairman, and one board member. We also interviewed a board chairman and a board member with experience on boards similar to the boards we studied for a total of six interviews. We did not attempt to achieve theoretical saturation (Charmaz, 2006) by

interviewing until no further knowledge was gained by the interviews, although we found that the opinions expressed below were encountered repeatedly in our interviews. Rather we were interested in gathering a sample of opinions to illuminate our exploratory results.

Ties outside of meetings. We found in all of our interviews that formal board meetings were often considered pro forma with the real business taking place outside of the meeting, confirming the importance of ties outside of the board meetings shown in Table 3. As Jim (all names are pseudonyms), a former CEO of a venture-backed firm said:

I think board meetings generally should be, if they are well orchestrated, they should be non-controversial and relatively perfunctory. You don't want to use the board meeting as a venue for venting controversial issues and trying to work through them. It is just not appropriate and not productive, and it is not good for the dynamic of the company.

As this CEO said later: "Don't confuse board actions with board decisions. Board decisions don't take place in the boardroom. Board actions take place in the board room."

This idea was reinforced by all of the interviewees. As Charles, a former chairman of the board of a publicly traded firm said:

I think it's fascinating that people think of "a board meeting" as being, you know, a defined term in and of itself because, because ...boards are quite different, particularly a public company board ... there is really no business that gets conducted there. It's a minuted meeting, it's the formal thing. You don't have discussion, motions are brought up, you use rules of order, and you take the votes that you need to take, so in that setting all the board's business takes place outside of the board meeting.

Consensus and collegiality. These contacts outside of the board room are important to maintain at least the illusion of consensus and collegiality as the normal boardroom

atmosphere, as discussed above. As Jim continued in his discussion of interactions inside and outside of the board room:

So, you are basically trying to wire things before you show up to the meeting. So, anything that you want to give people all the appropriate heads-up, anything that you believe will be problematic for any one constituent or another you want to air that out ahead of time, and where ...where no one is put in a position of being surprised, no one is put in a position of having to defend their ground, or their turf, or their interests suddenly in a, in a board meeting... Yeah, there is some friction but you know, you want to ... you don't want to create that friction in a board meeting.

Ties outside of the boardroom as social capital. If the real business is conducted outside of meetings, then it follows that the strong ties between board members outside of meetings would be important. All of the interviewees lend support to our quantitative finding that ties were extremely important to be influential on the board. The interviews revealed, however, that these ties were used in a number of ways to transmit influence. A tie can be used to become a “go-to-guy” and influence the CEO, ties can be used to influence the board by smoothing conflict and introducing controversial issues, members without ties can lack influence to the point of being perceived to act irrationally, and those, such as the CEO described below, who find themselves outside of the network may be in danger of losing their job.

Some interviewees, for example, talked about the importance of having specific allies on the board or “go-to-guys”. As Chuck, another former CEO of a venture-backed company said:

In my case there was always the same “go-to-guy” ... he was “here is what you need to do for my partnership; you need to hit the following milestones, do the following layoffs, or whatever it is. Here’s what you have to do for the other guy. I had a conversation through a backchannel, and here’s what I am hearing”.

Note that Chuck relied on his “go-to-guy” for insight into what others in the network outside of the board were thinking through “backchannels”. George, an independent board member from another company also had a go-to relationship with a woman CEO:

So I think it's more --- I mean, you know, the CEO role, as you guys know, is really hard, because you find your --- you know, oftentimes you feel really alone, in a smaller company in particular... and I think I've sort of been that --- for Alice --- I've been the person since day 1 that she could always call, and --- or email, and say, you know, “Let's have a glass of wine--- I've got six issues I want to just be able to talk out loud about.”

Networking outside of the board can also help to introduce controversial issues. As

Charles, a former board member said:

If I am a director and I'm constantly throwing bombs out that you're not prepared for, it's human nature that you start to look at me as being kind of a pain-in-the-ass character, because, you've signed up for this board, you're going to try and do your best. So you have some sort of an obligation to field the bombs or clean up the aftermath, or do whatever you do, but it's a pain in the butt. Whereas, if I come to you in advance and say, “Gee, you know, it occurs to me that --- that this could be, um, you know, considered a ‘bomb’ or that you, you know, you might have some difficulty with this, and so, you know, I'd really appreciate the time to talk this through in advance, because I think this is an important issue”.

As Troy, a former chairman of the board said later in the conversation:

And, I think ---as a style, you know, a person who's inclined to inform other people outside of board meetings what they want to address, what the issue is and what they feel about it, and listen to their views, is probably going to have more success and not run into many --- as many stone walls as someone who just says “This is the way it is --- end of discussion”.

The ties that are cultivated in these outside the board conversations generate influence. As the CEO Jim said:

So I would draw it --- I would have all of these circles of power, right? And the ones that are successful in making ties, powerful ties can then create influence.

Without that they are just bouncing around, they are the sperm that don't penetrate the egg.

As Jim said earlier in the conversation:

So, sometimes you form ties with the least threatening people, the ones you know eventually you can shoot, or you form ties with the strongest people because they can help you win, so there is a number of different criteria for forming the tie, but in the end you form a tie in order to be influential.

Echoing these sentiments, Chairman Troy said: "If you want to be influential on a board it takes time, so you have to make the commitment of time. Cause you're gonna have a lot of discussions outside of board meetings."

Those who don't have ties outside the meetings and bring up controversial issues can be perceived as acting irrationally. As CEO Jim said:

There are many, many examples of completely irrational behavior on the part of board members.... So you can have people that make very specific power plays from time to time for no apparent reason, with no support from anyone else, just out of the blue. They will make it their pet project to get the general counsel fired for whatever reason.

There are further dangers for those outside of the network. As Jim, the former CEO explained as his company started to fail:

And in our case we ended up, at a critical point, pinning the future of the company on a change in direction of what the company actually did, and what the company actually stood for, and at that point, I was less relevant, as the founder, as the CEO, as the ...as the figurehead of a company that was known for a certain thing.... So, by moving to a more traditional, leverageable software and services technology company, someone else was clearly the choice to take the company forward, and it was clear to me. But... and it was clear to everyone else...but no one ever did come up to me and say it. No one ever come up to me and said it.

As Jim elaborated:

Well, in the end, it turns out in the end what ended up happening was one investor stepped up to basically take over, take over control of the company and fund it and lead around it and move into this new direction, and that investor had

the conversation, one of these not in the board meeting conversations, right? Had the conversation with the co-founder who then related it to me. So, they did not have the conversation directly with the current CEO, which is me.

Cliques and social capital. There is also the possibility of factions or cliques generating influence, as we found in the quantitative analysis. The interviewees reinforced the idea that boards can split into cliques, sometimes in conflict. Troy, the former chairman discussed how factions existed on his board:

Well, there were two board members who owned a significant number of shares...And they were always in conflict. Pretty much knee-jerk, you know...There were swing votes on the board who would swing from one faction to the other. ... You could predict pretty much how certain members would vote... And then there were others who were in play, and they could be influenced one way or the other.

As the chair or lead director, Troy acted as a broker between the factions. Troy, in response to the question of whether there were people that he consistently contacted outside of meetings: "... I tried to influence people in either faction, and certainly to influence the people that were swing votes."

CEO Jim pointed out that on venture backed companies the venture capitalists can form a faction that exerts power:

Where there are venture capitalists on the board of directors, those members of the board tend to act as a block, as a block vote representing the money, and so they are acting not only on behalf of not only their own funds, but the other investors that are in the deal. So there is a fairly... it varies from group to group, but there is a code of conduct where those VCs will, will 'collude' on terms and conditions that are presented to the companies on whose boards they sit, which is problematic, and they will work with the other investors in the group and have those communications ex parte of the board itself.

Independent directors and social capital. Independent directors were found to be influential in the dual structure of Table 4, but CEOs seemed to have a love/hate

relationship concerning independent directors, with independent directors who were connected to the network being more influential.

On the one hand CEO Jim, who was also the chair in a dual structure said:

I just want to say before you go on there is really... there is rarely a very good reason for an outside director unless you have to have them...OK, I understand the whole theoretical thing of wanting to hear points of view, but basically you are just trying to get stuff done. And outside directors, they are wild cards. Who knows how they are going to act? So unless you have to, why bring them in?

On the other hand, as discussed above, CEO and chair Chuck, had a go-to-guy who was an independent or outside director, and George, the board member was an independent director providing a sounding board for the CEO. As an example, CEO Chuck discussed a situation where independent, outside members on a dual board were useful:

I had a couple of outside board members that were playing the role of helping me solve the problem with investor board members. So, for awhile, there was a somewhat antagonistic relationship between the investor board members and the management team and non-investor support board folks.

This suggests that independent members could be influential if they were well-connected in the network.

The structure of the board. Our interviews reinforced the finding from Table 4 that non-dual boards rely more on formal procedures and committees compared to dual boards. The two chairs, for example, often brought up procedural rules for dealing with issues whereas our two CEOs never mentioned formal procedures or committees as a way of dealing with issues. Troy, former board chair, said in response to a question of how to deal with a new issue: "Well, again most topics can be referred to some subcommittee of the board." When asked what to do if a disruptive issue arose, Troy reinforced that committees are important and active on non-dual boards: "But, again the

committee's not unlike a good CEO --- you are going to inform other people to bring them along, rather than just lay it in their lap." When faced with a disruptive issue according to Chairman Troy: "You have rules, you know The chair can cut off discussion and take a vote." And as Charles elaborated further: "And there is a reason that new business is the last item on the agenda because if anyone wants to bring anything up that I'm not prepared to deal with I gavel 'em down and say, 'Great point, but that's new business.' "

DISCUSSION

These results show that a model of social capital generated through interaction is very important for understanding influence on decision-making on boards of directors. The biggest predictors of influence on a board were ties to others, membership in cliques, and prior relationships with other directors, not independence from the company or CEO, and these results were supported by interviews. These results are clear indicators of the importance of social relationships for influence on a board, a result in direct contrast to the current regulatory assumption that independent board members will be most able to influence board policies.

These results are also in contrast to other studies that have looked at ties within the board and did not find effects for the ties of board members on influence (e.g., Carpenter and Westphal, 2001) or did not look at the effects of network position on influence (e.g., Seidel and Westphal, 2002; Westphal, 1998). Those studies traded off specific network details for large sample generality by sending out large numbers of questionnaires asking the CEO and one or two other board members to report the ties on the board and may not have had the power to reveal the complexity of the effects of ties

on the board. As the first study to survey the networks of all of the board members, construct networks of ties across a sample of boards, and follow up with interviews, this study has shown that ties and cliques do make a difference on influence on the board.

These results support the social capital model of influence in groups. Ties to others were associated with influence. Closure of ties into subgroups or cliques was also seen to lead to influence on the board. Here, it is clear that ties and influence are associated. We have argued that ties lead to influence on the board, although undoubtedly the reverse is also true. It should be born in mind, however, that everyone on the board is a powerful person in some other context, as some sort of experience and success in business or other pursuits is an implicit requirement for board membership. If we distinguish power from influence in terms of influence being the exercise of power, then having ties to others allows board members to exert influence on others. This exertion of influence becomes clearer when considering the interview data, where CEOs are touching base with board members to assure a smooth running board, CEOs are relying on “go-to” people to give them advice, CEOs find themselves excluded from the faction deciding on their removal, and chairs are mediating between conflicting factions on the board to achieve enough consensus to allow the board to function. We have argued that brokerage is less of a factor on these boards because all of the board members meet together, and boards are small enough that very few are completely isolated. This would probably not be the case on larger boards where brokerage by the CEO or chair is probably an important source of influence. Further research is needed to clarify the effects of ties, cliques, and brokerage on the board.

The structure of the board also made a difference in how these social dynamics affected influence. Social capital as embodied in ties and clique membership was less important in non-dual structures. The effects of human capital on influence varied depending on the structure of the board. Being an independent director, for example, did help offset the power of the CEO in dual boards, but did not have much influence on the non-dual board. Being on the compensation committee did have effects on influence in the non-dual structure. Our results can only be considered tentative, given the small number of boards studied, but our quantitative results and qualitative interviews suggest that formal process and committee membership are more important sources of influence when the chair and CEO are two separate positions on the board. Dual boards rely more on ties and cliques outside of meetings as a way of influencing decisions.

Internationally, the board structure of other countries may influence the social capital of board members. Similar to the U.S., various countries, such as the U.K., have formulated Codes of Best Practices that advocate more independent directors and a separation of CEO and chair positions (Denis and McConnell, 2003, Short, Keasey, Wright, and Hull, 1999). Nonetheless, in many countries, executives still occupy most of the seats on the board. In Australia, for example, the number of executives on the board increased from 1976 to 1996, and the network of board members across corporations increased (Alexander, 2003). In a country such as Australia, with many fewer corporations than the U.S., the connection of executives across boards is likely to lead to influence on the board. In addition, other countries may have other structural variations such as two-tiered boards, further complicating the structure of governance. This suggests

that further research on the impact of board structure on social capital and influence across countries is needed.

Here we intentionally separated social capital, as the number of network ties, from influence as an outcome, but ties may also lead to other outcomes such as trust between members. Clearly, a CEO having a “go-to-guy” or an independent director developing a close relationship with a CEO, as found in our interviews, demonstrates that ties can lead to trust. The structure of the board may influence how ties lead to trust. Here ties between members and prior relationships before joining the board were more likely to lead to influence on a dual board as compared to a non-dual board. It may be that dual boards rely more on current or prior ties between board members because these ties generate trust as well as influence. This hypothesis is reinforced by interviews that indicated that chairmen in non-dual boards relied more on formal process and committee members to influence the board, indicating that formal process may substitute for ties and trust in non-dual boards.

Trust may also be a function of closure (Burt, 2005, Coleman, 1988) in the sense that the overall density of strong ties on a board may lead to more trust among members. In this case, our qualitative interviews highlighted the fact that board members can form cliques that are in conflict with each other, increasing trust within cliques while perhaps decreasing the overall level of trust. Our unit of analysis was the individual, but, at the board level, a greater density of strong ties may lead to more overall trust on the board. Further research that gathers data across a larger number of boards may be able to tease out the relationship between ties, influence, and trust on the board of directors.

These results also have practical implications. Here centrality in terms of number of ties in board networks led to influence. Cliques, as boards within boards, also led to influence on the board. This highlights the danger of excluding members from having an impact on decisions, particularly in boards with the CEO also occupying the chair position, a structural arrangement where most cliques formed in this study. A clique can become a dominant coalition that makes decisions while excluding non-coalition board members from participation. This result points to the importance of open discussion of issues with opportunities for everyone to contribute. Some researchers have advocated executive sessions without the CEO as a way of getting members to speak up, and these results confirm that a mechanism such as the executive session is advisable, particularly in dual board structures.

Further research is needed on the process of decision-making on boards. As others have advocated (Daily, Dalton, and Cannella, 2003; Letendre, 2004), there is a need for more process studies of board decision-making to make the social dynamics of boards more transparent. If a researcher could get access, there are interesting questions raised here about the effects of cliques and ties on influence. A process study over time that revealed what leads to the development of ties and membership in cliques would be a valuable addition to our knowledge of board dynamics.

There are limitations to our study. Our study departed from other studies by not examining the largest corporations in the U.S. such as the Fortune 500. Managers of smaller firms may have less management experience and board members may have more influence in the context of the smaller firm (Forbes and Milliken, 1999). Private companies funded by venture capital firms dominated our limited sample of boards.

Previous research has found that this type of firm has very active boards (Fried, Burton and Hisrich, 1998). A larger, more diverse sample might reveal differences in social dynamics between private and public companies.

It will be up to future researchers to determine if our findings about the importance of networks outside of the board meetings generalize to larger companies. We suspect that these networks may be even more important in the largest companies, since their boards are larger and may be more prone to the formation of network ties and cliques within the board. In the U.S., Fortune 500 companies had an average board size of slightly over 11 in 2005 (Fram and Stevenson, 2007) as compared to our boards of 4 to 9. Our boards were more representative of U.S. smaller companies which have an average of 6 members on the board (Daily and Dalton, 1993). It has been shown many times that in large corporations in the U.S board members share ties across companies in a network of interlocking directorates (Scott, 1991). Here being on the board of another company did not translate into influence, but in the smaller and more socially homogenous universe of board members of the Fortune 500, membership across boards may have different effects. It may be that influence across boards is a more subtle phenomenon in large companies, with ties across boards providing a conduit for information (Mizruchi, 1996). It may also be true that direct influence on decision making is not guaranteed by sitting on other boards. Hirsch (1982), as reported by Mizruchi (1996), interviewed board members of large corporations and found that they claimed that their power was limited and that interlocks were not particularly important. Our research would suggest that interlocks may not be important unless the board

member has developed the social capital of ties within the board, but this is a possibility to be pursued in future research.

The study of boards has moved from the archival study of boards with public databases to surveys of boards. This maturing of the field has led theorists to call for more studies of the process of decision-making on boards. This study represents one of the first to consider the internal dynamics of decision-making. Boards of directors are currently a very important public concern. Clearly, much more work remains to be done to understand the social dynamics of boards of directors in order to develop the knowledge of boards that is necessary to recommend actions to make boards more effective overseers and decision makers.

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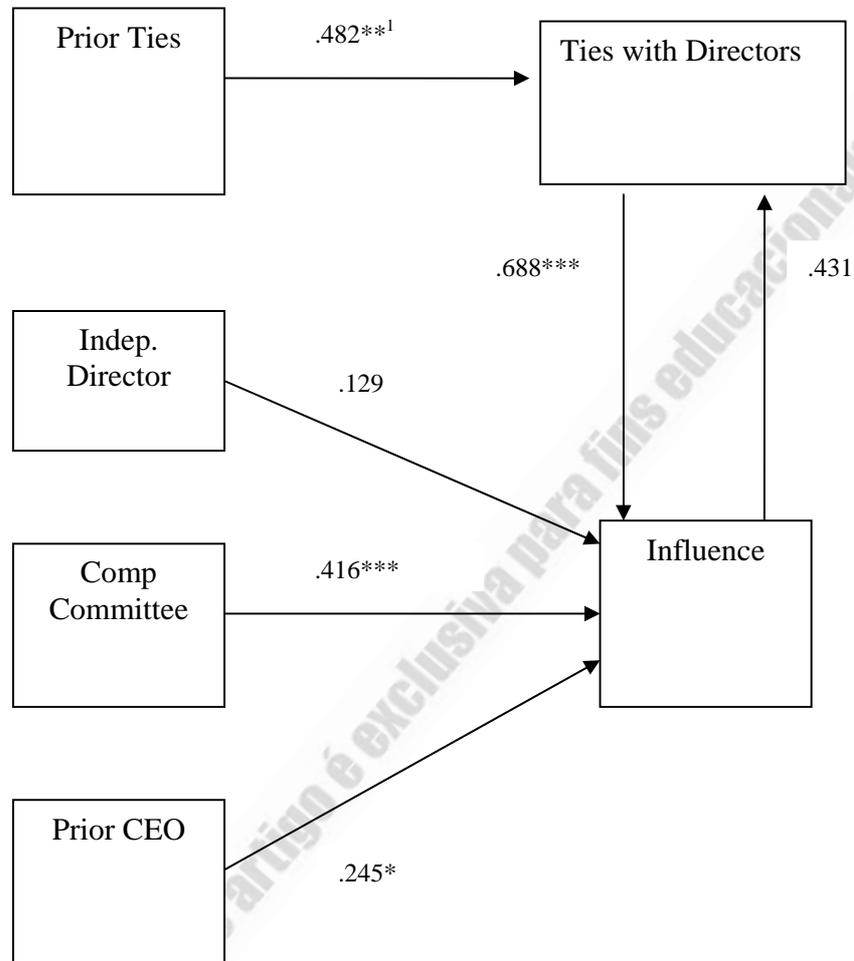


Figure A Non-Recursive Model of Ties and Influence

Notes:

¹Standardized coefficients

Chi-Square = 13.00, df = 9, p = .163

Incremental Fit Index = .99

Comparative Fit Index = .99

Table I. The effects of board member characteristics on influence

Industry Type	Number of Companies	Public/Venture Capital	Dual/Non-Dual
Software	7	2/4	3/3
E Commerce	4	1/3	1/3
Manufacturing	3	1/2	0/3
Biotechnology	1	0/1	1/0
Total	14	4/10	5/9

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TABLE II. Means, standard deviations, and correlations of study variables

Variables	Mean	S.D.	1	2	3	4	5	6	7	8
1. Independent Director	0.33	0.48								
2. Prior CEO	0.47	0.50	.00							
3. Comp. Committee	0.47	0.50	.33*	.06						
4. Audit Committee	0.41	0.50	.17	.01	.17					
5. Prior Relp with Others	0.75	0.44	-.06	.01	.10	.03				
6. Ties with Directors	29.67	26.51	-.00	-.17	-.03	-.32*	.03			
7. Prior ties	28.22	23.05	-.09	-.03	.26	.01	.57*	.33*		
8. Clique Member	0.53	0.51	.02	-.05	.12	-.26	-.10	.70***	.37*	
9. Influence	4.18	0.69	-.25	.15	.44**	.19	.31*	.37**	.34*	.41*

Notes:

¹N= 51 except for Clique Member where N = 38

*p < .05, **p < .01

Table III. The effects of board member characteristics on influence

Variable			
Independent Director	.147 ¹	.122	.115
Prior CEO	.128	.207+	.167
Comp. Committee	.337*	.329**	.336**
Audit Committee	.095	.254*	.223 ⁺
Prior Relp with others	.283*	.261*	.273*
Ties with Directors ²	---	.487***	---
Clique Member	---	---	.356**
R ²	.310**	.515***	.419***
Adjusted R ²	.233	.449	.340
N	51	51	51

Notes:

*** $p < .001$ ** $p < .01$ * $p < .05$ + $p < .10$

¹ All coefficients are standardized

² Ties are normalized across boards by calculating the percentage of ties out of all possible ties a respondent could possess on a board.

Table IV. The effects of board member characteristics on influence by board structure

Variable	Dual Structure		
Independent Director	.396** ¹	.482**	.364**
Prior Relp with others	.677***	.802***	.730***
Ties with Directors ²	---	.548**	---
Clique Member	---	---	.506**
R ²	.392**	.678***	.642***
Adjusted R ²	.328	.624	.583
N	22	22	22
	Non-Dual Structure		
Independent Director	.109	.010	.081
Comp. Committee	.406*	.420*	.459*
Prior Relp with others	.251	.173	.239
Ties with Directors	---	.390*	---
Clique Member	---	---	.282 ⁺
R ²	.324*	.458*	.401*
Adjusted R ²	.242	.368	.301
N	29	29	29

Notes:

*** p < .001 ** p < .01 * p < .05 ⁺ p < .10

¹ All coefficients are standardized

² Ties are normalized across boards by calculating the percentage of all possible ties a respondent possessed on a board