

THE QUAD MODEL FOR IDENTIFYING A CORPORATE DIRECTOR'S POTENTIAL FOR EFFECTIVE MONITORING: TOWARD A NEW THEORY OF BOARD SUFFICIENCY

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We introduce a new theoretical perspective for predicting effective monitoring, which involves a two-stage logic. First, we focus on individual directors, arguing that effective monitoring is highly likely when a given director possesses certain qualities. Based on prior research not previously coalesced, we set forth this baseline proposition: a director's likelihood of being an effective monitor in any given domain (say, financial matters) is greatly increased when he or she has all four of the following qualities: independence, expertise in that domain, bandwidth, and motivation. Second, we extend this quadrilateral model—or quad model—to make propositions at the board level. We argue that it is not sufficient for these four qualities to be distributed among all directors on a given board, since this makes it likely there will be no directors who can rise to the challenging task of monitoring. We propose that having just one quad-qualified director will be more predictive of board efficacy than will be any customary board descriptors. And we posit that if a board has two or more quad-qualified directors who can bolster and amplify each other, the company's likelihood of governance failures will be especially reduced. We discuss theoretical and practical implications and lay out a research agenda.

Why do boards fail so often? (Monks & Minow, 2011: 295).

Boards of directors are charged with protecting the interests of their companies' shareholders. As such, their primary role is to monitor the behaviors and efficacy of company executives on behalf of dispersed owners, alert to the potential for honest mistakes and misjudgments, as well as outright misdeeds and ineptitude (e.g., Fama & Jensen, 1983; Mizruchi, 1983). Business executives—in the aggregate—may not be any more careless, selfish, or dishonest than the rest of us, but they are still humanly finite. Even if most chief executive officers (CEOs) are conscientious and scrupulous, they are susceptible to clouded judgment and missteps. Boards therefore have their work cut out for them. And, to the disappointment of shareholders, they often seem to fail in their monitoring responsibilities, as reflected in widespread governance failures. Sometimes governance failures come in waves, as with epidemics

of greenmail payments in the 1980s, stock option backdating in the late 1990s (which went undiscovered for several years), and systemic ignorance of risk exposure in the mid-2000s. Many incidents are more localized, as when boards act as bystanders to financial fraud (Arthaud-Day, Certo, Dalton, & Dalton, 2006; Harris & Bromiley, 2007), unwise or overpriced acquisitions (Hayward & Hambrick, 1997), outsized CEO pay (Bebchuk & Fried, 2003), or other CEO inadequacies (Westphal & Bednar, 2005), often resulting in immense losses for shareholders and other constituencies.

Recognizing the large stakes involved, researchers have devoted considerable effort to studying why boards fall short in their monitoring responsibilities and what should be done about it. Scholars in management, finance, accounting, economics, and law, as well as a host of governance consultants, have contributed to this large body of work (e.g., see Dalton, Hitt, Certo, & Dalton, 2007; Finkelstein, Hambrick, & Cannella, 2009; Hermalin & Weisbach, 1998; Monks & Minow, 2011), proposing a variety of ways to improve the monitoring capabilities of boards. Perhaps the most prominent tack has

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been to propose increases in the proportion of independent directors, customarily defined as those who are not current or former company employees or otherwise linked to the company or its managers (see Gordon, 2007). The logic is that independent directors will be relatively dispassionate about a CEO's proposals and actions and, therefore, more capable of vigilant monitoring (Fama & Jensen, 1983). Other prominent proposals include structural adjustments, such as reducing the size of boards, to enhance each director's sense of potency and accountability (Dowell, Shackell, & Stuart, 2011; Langevoort, 2001); separating the chair and CEO positions (or eliminating "CEO duality"; Green, 2004; Tuggle, Sirmon, Reutzel, & Bierman, 2010) or, alternatively, appointing an independent director as "lead director" (Gordon, 2007; Lipton & Lorsch, 1992); and stipulating the existence and composition of various key board committees (e.g., audit, nominating, and compensation; DeFond, Hann, & Hu, 2005; Klein, 2002; Ruigrok, Peck, Tacheva, Greve, & Hu, 2006).

Even though these various prescriptions have enough face validity to be adopted into recent laws and regulations (for a review see Linck, Netter, & Yang, 2009), a wealth of research indicates that these proposed solutions are not solutions at all. In general, they are not very effective. For example, Dalton, Daily, Ellstrand, and Johnson (1998) found, in their meta-analysis, no relationship between firm performance and either board independence or CEO duality. Moreover, governance problems are still very evident in the corporate landscape.

We introduce a new theoretical perspective for predicting effective monitoring by boards and, in turn, for predicting reduced incidence of governance failures. At the outset, it is important to emphasize that monitoring is a process that directors engage in, typically unobservable by shareholders, while governance failures are *overt actions or outcomes* that hurt shareholders (or that, once evident, shareholders react to extremely negatively) and that observers can reasonably claim were avoidable (e.g., financial fraud, overpriced acquisitions). As we develop below, effective monitoring will lessen the likelihood of governance failures, but the relationship is not deterministic. Just as with, say, the relationship between smoking and lung cancer, some companies with ineffective monitoring will be fortunate enough to elude governance

failures, and the very best monitoring is no guarantee against bad outcomes. Effective monitoring greatly reduces the odds of governance failures but does not ensure their elimination.

What constitutes effective monitoring? As we will discuss, the locus of monitoring is the individual director. His or her monitoring is "effective" to the extent that it approximates the monitoring a significant and dispassionate shareholder would engage in—if such a shareholder were on the board. Accordingly, effective monitors are vigilant on a wide array of fronts: they do their homework; if they believe they need more information, they ask for it; if they sense a problem, they speak up; if not satisfied, they speak up again—all while recognizing the potential for social strain and added work, especially for themselves, that such behaviors can bring.

Given that effective monitoring is clearly arduous and personally risky, we suggest a fresh consideration of fundamentals, asking, "What is required for someone to do a task well?" From numerous studies over decades, psychologists and organizational behavior researchers have verified that task performance depends on the joint presence of ability *and* motivation. These two qualities are not substitutes for each other, nor does their simple sum predict task efficacy. It is only when *both* ability and motivation are present, above some threshold levels, that a person is likely to do a job well.

When applied to corporate directors—who are susceptible to mixed allegiances, have competing demands on their time and attention, and serve multiple functions—the construct of ability particularly becomes multifaceted. Indeed, governance researchers have devoted attention to four main attributes of directors that are thought to be associated with effective monitoring and that, in turn, can be mapped onto the ability \times motivation framework: independence (ability to be objective), expertise (ability to comprehend the issues at hand), bandwidth (ability to devote requisite time and attention), and motivation (eagerness to exert one's self on behalf of shareholders).

Yet, as we describe later, governance researchers have treated these four attributes independently of each other, in a *ceteris paribus* manner. Our insight, following from the interaction logic of the ability \times motivation framework—adapted for the board monitoring context—is that these

qualities need to be considered jointly, not separately, for each director.

We develop our theory in two stages. First, we focus on individual directors and argue that there are *multiple* qualities a director must possess to have a high likelihood of being an effective monitor. Based on prior fragmentary research not previously coalesced into an integrative whole, we set forth this baseline theoretical proposition: *a director's likelihood of being an effective monitor in any given domain is greatly increased when he or she has all four of the following qualities: independence, expertise in that domain, bandwidth, and motivation.* Put another way, if a director is missing any of these qualities, he or she is much less likely to be an effective corporate overseer. As the proposition states, and as we will elaborate, a director's expertise must be assessed on a *domain by domain* basis (e.g., a given director may have deep financial expertise but little understanding of environmental compliance, or vice versa). This stipulation stems from a two-part reality: (1) governance failures tend to occur in specific domains, such as financial fraud, excessive CEO pay, or unsound acquisitions, and (2) directors can only effectively monitor those domains in which they possess requisite expertise (Hillman & Dalziel, 2003). The other three director attributes—*independence, bandwidth, and motivation*—each can be thought of as *generally* present or lacking in a given director.

Second, we then extend this quadrilateral model—or quad model—to make concrete propositions at the board level. As we will argue, it is not sufficient for these four qualities to exist somewhere among all directors, as if sprinkled across a board in a distributed manner. This is why, for example, the simple proportion of independent directors is not predictive of much of anything. A given independent director might easily be missing one of the other necessary attributes; in fact, every independent director might be missing one or more of the requisite qualities. Thus, even though a board's compositional averages might appear satisfactory, there might actually be no directors fully equipped and inclined to engage in the challenging task of monitoring. We propose that the presence of *just* one director who has the four requisite qualities (or a quad-qualified director) will be more predictive of board efficacy—in terms of avoiding governance failures in a given domain—than

will be any customary board descriptors. And, following from the evidence of the small-groups literature (e.g., Laughlin & Adamopoulos, 1980; Martin & Hewstone, 2012), if a board has *two or more* such quad-qualified directors who can bolster and amplify each other, the company's likelihood of governance failure in a given domain will be especially greatly reduced.

To clarify, then, our theory is bounded on two fronts. First, we focus exclusively on the monitoring function of boards. While recognizing that boards also fulfill a resource provision role (Hillman & Dalziel, 2003), our model expressly specifies the attributes needed for effective corporate oversight. As we will show, the literature on resource provision informs our theory in various ways, but our sole aim is to shed new light on the determinants of effective monitoring—the legally stipulated function of boards that, judging from ongoing governance failures, scholars have yet to fully comprehend. Second, in our theorizing, only outside directors—those not current or former company employees—are eligible to be assessed for their monitoring potential. Even though company executives may serve useful roles on boards (e.g., Baysinger & Hoskisson, 1990), it is essentially axiomatic that they are not capable of scrutinizing themselves, their own policies, or their boss dispassionately. Thus, when we refer to effective monitors, or to “quad-qualified” directors, we are referring to a subset of outside directors.

We should emphasize that our quad model is strictly a predictive theory, providing a new logic for explaining the incidence of governance failures. We do not propose preferred operationalizations of the four elements of the model, although we discuss some alternative indicators, and in a later section we provide ideas about research designs for testing the theory. Nor do we give concrete guidance as to how companies should identify or recruit quad-qualified directors, although here again we raise illustrative suggestions. Foremost, the quad model provides a new vantage point for comprehending the combination of director attributes needed for effective monitoring.

THE MONITORING FUNCTION OF CORPORATE DIRECTORS

In order to understand the nature and importance of the monitoring function of corporate

directors—our chief interest—it is useful to place this role in context. We start by discussing the role of board monitoring relative to other governance mechanisms. We then elaborate on the board's monitoring role relative to its other functions. Next we highlight the inherent challenges of effective monitoring. Finally, we summarize the fragmentary and inconclusive nature of prior research on board monitoring.

Board Monitoring and Other Governance Mechanisms

Board monitoring is not the only available device for encouraging CEOs to adhere to shareholders' interests (for reviews see Dalton et al., 2007, and Rediker & Seth, 1995). Governance theorists have discussed the importance of incentive compensation (e.g., Bebchuk & Fried, 2003; Hölmstrom, 1979), which can bring about its own negative by-products (e.g., Harris & Bromiley, 2007; Sanders & Hambrick, 2007); monitoring by blockholders and institutional investors (e.g., David, Kochhar, & Levitas, 1998; Shleifer & Vishny, 1997); vigilance from the press and watchdog groups (e.g., Miller, 2006); and the threat of takeover (e.g., Fama, 1980; Jensen, 1993). Among these various tools for directing executive behavior, however, board monitoring is alone in providing real-time, front-row oversight. While various external actors are alert from a distance, will sometimes raise the alarm when they detect a problem, and might join in sanctioning managers after the fact, only boards can *directly* influence the chances of such occurrences *in the first place* (Mizuchi, 1983). In this vein, a recent large-scale study by Misangyi and Acharya (2014) rigorously shows that board monitoring is an essential ingredient of corporate performance and not simply a substitute for the other mechanisms that make up the overall bundle of governance tools.

Consider further Miller's (2006) intriguing study, in which he reported that 29 percent of the major corporate frauds he examined were first detected by individual journalists. On the face of it, this study applauds the role of the press as governance watchdog, but it also raises deeper questions: If journalists could spot these frauds using public sources, why couldn't the companies' boards have detected them? For that matter, why couldn't the boards have spotted the frauds when they were first being perpetrated? And what kind

of tone did these boards set that would prompt their companies' CEOs and other executives to engage in such acts and think they could get away with them?

Boards are the front line of defense for protecting owners. And, given the many ways companies and their executives can malfunction or otherwise lose their way, board vigilance is crucial. With effective board monitoring, there is a reduced chance that ill-equipped CEOs will be hired or retained, a reduced chance that CEOs will propose unsound or unsavory initiatives, and a reduced chance that such proposals, if floated, will be approved or go unnoticed.

Multiple Functions of Boards

Although monitoring is the legally stipulated function of boards of public corporations, boards serve additional roles as well. In a well-known synthesis, Hillman and Dalziel (2003) distilled board functions into two major categories—monitoring and resource provision—a typology we adhere to here (for a review see also Withers, Hillman, & Cannella, 2012).

Pfeffer (1972) was among the first of the organizational theorists to identify the resource provision role of boards, invoking the logic later formalized as resource dependence theory (Pfeffer & Salancik, 1978). Pfeffer's argument was that corporate directors serve as valuable links to an organization's environment, helping to open doors, navigate external contingencies, and provide insights from varied perspectives. Scholars subsequently have documented an array of board contributions that fall within the resource provision category: providing the company's executives advice and counsel, helping executives stay alert to external issues and trends, serving as communication conduits between the organization and its various constituencies (including investors, regulatory authorities, and the media), and facilitating external ties (e.g., Baysinger & Hoskisson, 1990; Carpenter, Pollock, & Leary, 2003; Carpenter & Westphal, 2001; Haynes & Hillman, 2010; Hillman, Cannella, & Paetzold, 2000; Judge & Zeithaml, 1992; Kor & Misangyi, 2008; McDonald, Westphal, & Graebner, 2008; Mizuchi & Stearns, 1994; Westphal, 1999).

Within the resource provision category, one particular role especially warrants note: the board as reputational marker. It is well known that a board's cachet—its prestige within the

overall business and social world—helps to signify the focal company's own stature or reputation (e.g., Acharya & Pollock, 2013; Certo, 2003; Higgins & Gulati, 2003). Companies therefore feel pressure to appoint directors whose credentials will befit—and ideally enhance—the companies' own standing. Those firms that lack track records are especially under pressure to appoint blue-chip directors. For instance, private companies preparing to go public (in IPOs) go to great lengths to appoint prestigious directors—those having lustrous employment, directorship, and educational credentials—in the months leading up to their public offerings (Chen, Hambrick, & Pollock, 2008), and firms' initial valuations are then buoyed by every trace indicator of prestige on their boards (Pollock, Chen, Jackson, & Hambrick, 2010). In short, some directors are valuable for their mere presence. By simply glistening as "ornaments on the corporate Christmas tree" (Mace, 1971: 90), boards and individual directors might justifiably believe they are fulfilling a significant purpose.

The fact that boards serve multiple functions is relevant for our theorizing in two major ways. First, even though monitoring and resource provision are conceptually distinct roles, they are not antithetical and may often overlap and be symbiotic. For instance, envision a director who says, "This proposed acquisition price seems awfully high. Let's talk to [Advisor X], whose judgment I've come to greatly value." This director is putting the brakes on a proposed deal while simultaneously engaging his own network of connections for the potential benefit of the company. Whenever a director raises a negative note while also suggesting a fresh alternative, he or she is simultaneously fulfilling both the monitoring and resource provision roles. Thus, as this example indicates, a given director might contribute greatly in both roles. Certainly, there is nothing about our quad model for monitoring effectiveness, developed below, that is at odds with effective resource provision.

Second, even though resource provision and monitoring are not necessarily incompatible, in some cases the former might squeeze out the latter. Directors might be selected and recruited primarily for their potential to contribute on the resource provision front, with less attention to their monitoring potential. Moreover, some directors may gravitate to the more congenial resource provision role. As we discuss below, effective

monitoring is very difficult. By contributing generously on the less contentious and more upbeat resource provision front, directors might understandably conclude they are amply serving the company.

The Challenges of Effective Monitoring

From a behavioral standpoint, what does effective monitoring entail? Foremost, it requires vigilance in many domains, including alertness to a host of potential problems: financial misrepresentation, unsound or mispriced acquisitions, overly (or underly) aggressive business strategies, unwise risk exposure, regulatory noncompliance, excessive CEO compensation or other forms of CEO self-dealing, and, of course, slipping CEO effectiveness. Effective vigilance ranges from matters that are expressly on a board's radar screen to those that are more latent or out of view; thus, it entails alert reactions and proactive inquiry, as well as a concern with managerial errors of commission and omission. Such vigilance is greatly complicated by the nonprogrammability of executive tasks (Eisenhardt, 1989), as well as by the complex links between executive actions and outcomes (Walsh & Seward, 1990). Moreover, directors operate at an informational disadvantage (Brudney, 1982; Duchin, Matsusaka, & Ozbas, 2010), since even well-meaning CEOs may provide only highly distilled information, both out of respect for their directors' busy professional and personal lives and because it is a business norm (Adams & Ferreira, 2007).

As such, effective monitoring means that if directors sense a problem, they ask about it; if not satisfied, they ask about it *again* and ask fellow directors what they think; if concern still continues, they explicitly ask for the board's pointed consideration of the issue; and then if the board concludes that a problem exists, they take some action. Research has shown, however, that this may not always occur; many boards develop norms of acquiescence (e.g., Langevoort, 2001; Leblanc & Gillies, 2005), with directors often succumbing to the belief that silence from others means everything is all right (Westphal & Bednar, 2005).

There is some evidence that directors can incur social and professional costs from taking assertive stands with their CEOs. For instance, in a large-scale study Westphal and Khanna (2003) found that directors who were associated with

"anti-CEO initiatives" (e.g., separating the CEO and chair roles or dismissing the CEO) at a given firm tended to be ostracized by fellow directors at the other boards on which they served; through social distancing processes, their opinions and advice were no longer solicited in board meetings, and they were no longer invited to informal meetings.

Even holding aside the potential for ostracism, effective monitoring is personally taxing. To not be seen as naive or a mere troublemaker, a director must be relatively sure about the validity of any concern he or she might wish to raise, typically requiring careful homework on his or her part. Moreover, if the board ends up agreeing with the director's concern, he or she can generally expect to be drawn into any follow-up analyses or inquiries, amounting to additional committee work, conference calls, and meetings.

In sum, we can see why directors might fall short in fulfilling their monitoring responsibilities. Effective monitoring is arduous work, as well as personally risky for the individual director. It requires a significant amount of time and attention (including attention to detail), healthy skepticism, and a willingness to raise difficult issues. It requires enough substantive expertise to know what to look for and to allow cogent assessment of available information. Beyond the basic—but essential—need for objectivity, the effective monitor must be motivated to surmount the general norm of acquiescence. Yet many directors are selected for their potential to contribute in *other* ways, including providing advice and luster, rather than for their potential to be effective monitors (e.g., Westphal & Stern, 2006). With multiple roles, and so many sought-after attributes for fulfilling those roles, it is perhaps understandable that neither theorists nor practitioners have developed a comprehensive model of the ideal monitor.

Summary of Prior Research

Individually, prior studies of board monitoring have been sensibly motivated and competently executed, but, taken as a whole, they have been extremely fragmentary and inconclusive. The first complication is that researchers have understandably examined outcomes across a wide array of monitoring domains, including financial misconduct, CEO compensation, acquisition premiums, poison pills, and greenmail, among

others, making any accumulation or comparability very challenging.

Second, individual researchers have gravitated to their own preferred ideas about monitoring-enhancing conditions, including board independence, separation of chair and CEO roles, board tenure, board shareholdings, committee structures and composition, number of other board seats held by directors, and others (each with varying operationalizations). To cope with this immense array of governance attributes, individual researchers generally have examined only small subsets in their respective analyses. Among those researchers who have focused on identifying ideal attributes of directors, a number have pointedly considered the four elements our quad model comprises: independence (Dalton et al., 2007; Gordon, 2007); expertise (DeFond et al., 2005; Tian, Halebian, & Rajagopalan, 2011); bandwidth, which is typically labeled as its inverse, "busyness" (Cashman, Gillan, & Jun, 2012; Ferris, Jagannathan, & Pritchard, 2003); and motivation (Bhagat, Carey, & Elson, 1999; Hillman, Nicholson, & Shropshire, 2008). But as is so common in governance studies (highlighted by Misangyi & Acharya, 2014, and Rediker & Seth, 1995), these investigators generally have examined only selective subsets of such attributes, often with limited or contradictory results.

Third, and most important, regardless of how researchers have conceptualized the ideal ingredients for effective monitoring, they typically have operationalized them as board averages or totals. For example, a given study might examine the proportion of independent directors, the percentage of directors with financial expertise, or the total shareholdings of all directors on the board—each meant to be indicative, in a *ceteris paribus* manner, of a board's propensity to monitor. But the use of such aggregate measures ignores the distribution of these discrete attributes among individual directors. Continuing with the example, it is possible that—on a given board—the only directors who have significant equity holdings are the inside directors, while the sole independent director with financial expertise has almost no equity holdings.

In short, prior theory and studies have identified the relevant pieces of the director monitoring puzzle but have examined them piece by piece, stopping short of assembling them into an integrative whole. Moreover, researchers have sought to examine the monitoring potential of

boards in the aggregate, with insufficient awareness that individual directors are the elemental components of a board's monitoring potential.

THE QUAD MODEL: SPECIFYING THE IDEAL MONITOR

Given that effective monitoring is exceptionally challenging, it is essential to ask, "Who could do this task well?" To answer this question, we integrate two distinct perspectives. First, we rely on the classic theory from organizational behavior that one's task effectiveness depends on the *joint* presence of ability *and* motivation, or $E = f(A \times M)$. Over the decades researchers have verified that an individual must possess both ability and motivation, above threshold levels, to do a task well (e.g., Lawler, 1966; Maier, 1955; Mitchell & Daniels, 2003; Reinholt, Pedersen, & Foss, 2011). In other words, if either of these two types of attributes is lacking or below some minimum level, the other will generate little effect. As an extension of this core premise, researchers also have concluded that when a task requires *multiple abilities*, an individual must possess them all—again, at least at viable levels—along with motivation, in order to be effective (summarized in Campion et al., 2011). For instance, to be an effective MBA-level teacher, one must have at least two abilities—subject matter expertise and good communication skills—along with the motivation to teach well. If *any* of these three qualities is severely lacking, no amount of the other two will yield a good result. Correspondingly, if *all* three qualities are present above threshold levels, greater amounts of *any* will generate enhanced outcomes.

Second, we rely on the logic of agency theory, as well as an abundance of governance research, to specify the essential qualities of the effective director-monitor. There was once a time when companies' boards consisted of elected subgroups of major owners. But today, at least in the United States, directors are largely hired hands or quasi-agents themselves—prominent individuals who are selected because they are known by the CEO, by other current directors, or by a search firm. The vast majority of these individuals have primary responsibilities that lie someplace other than the focal firm. Their motives for being on the board may bear little correspondence to their eagerness to monitor on

behalf of the firm's owners; indeed, they are susceptible to mixed allegiances and competing expectations as to what constitutes desirable boardroom behavior (Adams, Hermlin, & Weisbach, 2010; Monks & Minow, 2011).

These uncertainties about directors' qualities have prompted governance experts to theorize about the core attributes needed for an individual to be an effective monitor, gravitating to certain fundamental attributes, above all others: independence, expertise, bandwidth, and motivation. For instance, in their comprehensive review, Adams et al. (2010) devoted considerable attention to exactly these director attributes, but—as is customary—did so in a one-at-a-time manner. In sum, even though governance scholars have not considered the multiple, conjoint qualities needed for effective monitoring, they have identified the pieces for such a model.

From prior research, then, we can specify four elements that, in combination, will greatly enhance the chances that a given director will be an effective monitor, and that can be mapped into the $E = f(A \times M)$ framework: independence (ability to be objective), expertise (ability to comprehend the issues at hand), bandwidth (ability to devote requisite time and attention to the focal company), and motivation (eagerness to exert one's self on behalf of shareholders).¹ Again, following from the logic of the ability \times motivation framework, *all four* of these attributes are needed, above some threshold levels, for a director to have a high likelihood of being an effective monitor. If a director is missing any of these qualities, the likelihood that he or she will be an effective monitor is greatly diminished.

Proposition 1: A director's likelihood of being an effective monitor in any given domain is greatly increased when he or she has all four of the following attributes: independence, expertise in that domain, bandwidth, and motivation.

We now discuss these four attributes. We define each element, argue for why it is essential to effective monitoring, and briefly invoke prior research to describe the ways in which each attribute might be present or absent in a given

¹ The three "abilities" in our model are not all in the vein of skills or knowledge, as is typical for $E = f(A \times M)$ studies. However, they all reflect aspects of a director's wherewithal, or capacity, to be an effective monitor.

director. Again, we do not aim to propose operationalizations; rather, we mean to convey that these four important qualities are far from universal among corporate directors. Indeed, these director attributes may be more noteworthy for their overall absence than for their presence.

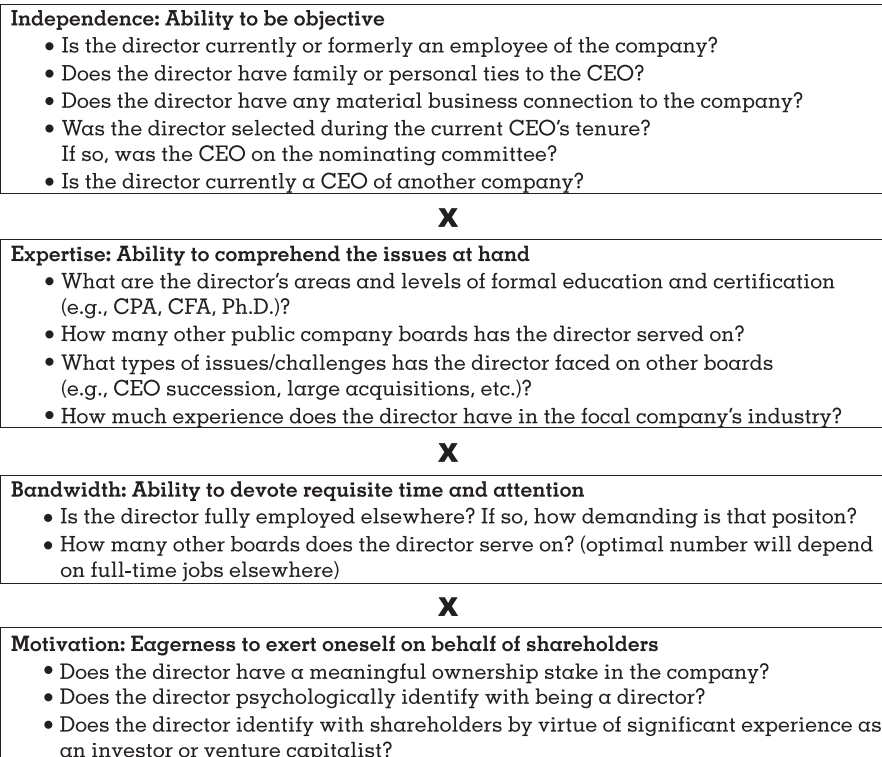
Independence: Ability to Be Objective

To be capable of dispassionate monitoring, a director must be independent or objective about the company's managers and their policies. It is only with such objectivity that a director will be able to genuinely question or dissent from a CEO's initiatives; objectivity is especially essential for dealing with an underperforming CEO. As noted earlier, the most obvious case of a co-opted director is someone who is an executive in the firm—who hierarchically reports to the

CEO and is very concerned about staying in his or her good graces. In fact, early research equated the insider/outsider distinction with (non)independence (Daily, Johnson, & Dalton, 1999). But directors might be CEO partisans for other reasons, including family ties or business dealings with the company (as, say, bankers, lawyers, or consultants). As such, the currently prevailing portrayal of an independent director is someone who is totally "unaffiliated" (Dalton et al., 2007).

Directors might be psychologically beholden to their CEOs for additional reasons, which we summarize in Figure 1. Most notably, because directors who are selected by the CEO (or with his or her significant involvement) may be sympathetic to the CEO, some researchers have proposed that only unaffiliated directors who predate the CEO's appointment can be considered truly

FIGURE 1
The Quad Model for Specifying the Ideal Monitor (Along with Possible Tests for the Presence, or Absence, of the Four Elements)



High likelihood of being an effective monitor in a given domain

independent (e.g., Boeker, 1992; Daily & Dalton, 1995). In a related vein, others have emphasized the importance of being selected by a nominating committee consisting only of unaffiliated directors (Monks & Minow, 2011). Yet other scholars have argued that directors who are themselves currently CEOs may feel a tacit rapport or identification with a focal firm's CEO; even without any tangible ties, fellow members of the "CEO fraternity" may be reluctant to create discomfort for each other (Hillman et al., 2008; Westphal, Park, McDonald, & Hayward, 2012).

There is little evidence that director independence—in and of itself—accomplishes very much. As noted above, meta-analyses consistently have shown that proportions of unaffiliated (or outside) directors are not meaningfully associated with performance outcomes. Even in those studies where board independence is found to matter, the effect is slight. For example, in a recent study of the antecedents of corporate fraud, Kim, Roden, and Cox (2013) found that the proportion of unaffiliated directors in firms that committed fraud was 71 percent, while in matched comparison firms it was 75 percent—a statistically significant difference, but hardly reassuring for predictive or policy purposes.

In our framework a director's independence is necessary but not sufficient to make him or her an effective monitor. Independence confers the ability to be objective, an important quality for an effective overseer, but says nothing about the director's acumen, availability, and eagerness to engage in the challenging task of monitoring on behalf of shareholders.

Expertise: Ability to Comprehend the Issues at Hand

Being an effective monitor requires expertise—in-depth knowledge and understanding of the domain being monitored. A director cannot begin to ask the right questions or to interpret the answers in complex matters unless he or she has the ability to comprehend the issue at hand.

Governance researchers—especially those who have examined the resource provision role—have shown that boards vary greatly in their breadth and depth of expertise, or "board capital" (Haynes & Hillman, 2010), as do individual directors. For instance, Tian and coauthors (2011) found that board experiences relevant to CEO selection were positively related to investors' reactions to CEO

selection announcements. Similarly, research has shown that firms with directors having financial backgrounds engage in lower levels of acquisition activity (Jensen & Zajac, 2004), and directors' acquisition experience improves firms' acquisition performance (McDonald et al., 2008).

For the monitoring role, financial expertise has been deemed especially important, since an in-depth ability to assess financial matters is thought to equip directors to be effective overseers in an array of domains. Indeed, many company missteps and misdeeds—fraud, embezzlement, and dubious transactions, to name a few—might be prevented by careful scrutiny of financial reports and procedures, which, of course, requires sophisticated understanding of such matters. Authorities have therefore instituted requirements for the presence of financial expertise on boards (Linck et al., 2009), and academic researchers similarly have taken up an interest in the implications of such expertise (DeFond et al., 2005; Krishnan & Visvanathan, 2008).

One can readily picture how other areas of deep understanding could be valuable, if not crucial, depending on the monitoring domain at hand. In line with the study by Tian et al. (2011), described above, making prudent decisions about CEO dismissals would seem to require considerable director experience in judging CEO effectiveness. Similarly, sensible judgments about proposed acquisitions, international expansion, executive compensation, and regulatory compliance would all seem to respectively require their own threshold levels of mastery. Such mastery—or deep understanding—could come from formal education or certifications (e.g., CPA), extensive career experience in certain functional areas or industries, or lessons learned from prior board seats (Carpenter & Westphal, 2001; Hillman & Dalziel, 2003).

The exact range of relevant monitoring domains cannot be specified in any general way. Some domains, such as financial matters and CEO assessment, might be thought of as universally and perennially important. The criticality of other domains, such as assessing acquisitions or environmental compliance, may depend on the firm's industry, strategy, and life cycle stage. Some monitoring domains, however, are very difficult to anticipate, arising to significance only as a problem occurs (or is about to occur). Following from our predictive logic,

a director who happens to have expertise in this unforeseen area may be able to spot the potential problem, or at least ask the right questions, helping to avert a bad outcome.

It is important to reemphasize that expertise differs from the other three elements of the quad model, in that it must be assessed on a domain-specific basis. For example, a director who is a retired partner of a major public accounting firm may have abundant financial expertise but little understanding of how to assess the strategic or cultural fit of a large potential acquisition. Some directors may have great expertise in a wide array of domains, but we caution against portraying individuals in terms of their "overall" expertise.

In sum, for a given domain, effective oversight requires the ability to comprehend the issues that may arise, and a specific director either does or does not have sufficient expertise to grasp the situation. If the director possesses such expertise *and* is also independent, he or she has two of the attributes of an effective monitor in that domain. But two more are still needed.

Bandwidth: Ability to Devote Requisite Time and Attention

Corporate directors are selected primarily because of their accomplishments, stature, and connections. Thus, most directors are extremely busy, with significant competing demands on their time and attention (Khanna, Jones, & Boivie, 2014; Leblanc & Gillies, 2005; Lorsch & MacIver, 1989). For any given director, then, it is reasonable to ask, "Is he or she *too busy*? Does he or she have the bandwidth—which we define as the ability to devote the requisite time, attention, and energy—to be an effective monitor on behalf of this company's shareholders?" For instance, it cannot be a good sign if a director is hard-pressed to skim a binder for the first time on the way to a board meeting. Nor is it ideal for a director to feel that he or she cannot afford to deal with the time demands that would follow from asking for additional information or raising a contentious issue (quite apart from any concerns about the social costs, as noted above).

Yet we know from ethnographic and anecdotal accounts that such consequences of time constraints are common among corporate directors (Leblanc & Gillies, 2005; Lorsch & MacIver, 1989). Leblanc and Gillies conducted a series of

interviews that illustrate this point, typified by these quotes: "Time is a problem. Being a director demands so much time of a person" and "One of the mistakes I made was not absorbing the detail of a given study. I started too late—again, 'time' as I said" (2005: 76-77).

In recent years researchers have examined director bandwidth by focusing on the number of board seats held by individual directors. Ferris et al. (2003) proposed the "busyness hypothesis," suggesting that directors serving on multiple boards may become overcommitted, causing them to spread their attention too thin; they proposed that directors serving on three or more boards should be classified as "busy." Later studies also have shown that busy directors may be less effective monitors (Cashman et al., 2012; Fich & Shivdasani, 2006).

As time consuming as other board seats might be, it is odd that researchers have not considered the competing burdens posed by outside directors' primary occupational positions—their "day jobs"—which must greatly determine their available bandwidth. Consider individuals who are fully employed in a demanding position elsewhere, say as a corporate CEO or COO, university president, or law firm partner. These individuals might be conscientious, talented, and valuable in the board's resource provision or reputational marker roles, but one might ask whether they have the bandwidth to be effective monitors. With packed work weeks, filled with their own stresses and strains and information overload, do active executives or professionals have the ability to devote the time, attention, and energy necessary for effective monitoring? A possible answer is reflected in two recent trends, documented by the search firm Spencer Stuart (2013): (1) more and more companies prohibit their CEOs or other executives from sitting on other firms' boards, and (2) there has been a steady decline in the percentage of all directors who are active executives, along with a corresponding increase in the percentage who are retired executives.

In sum, a director is likely to be an effective monitor only if he or she has sufficient bandwidth. It is reasonable to ask whether individuals who are fully employed in demanding positions elsewhere, particularly in executive positions, or those who are on several other boards have the capacity to engage in the demanding task of vigilant monitoring.

Motivation: Eagerness to Exert Oneself on Behalf of Shareholders

We have emphasized throughout that effective monitoring is arduous and risky work. It requires a director to undertake careful scrutiny and analysis of available information; to sometimes ask for additional information, which then requires yet more time and effort and might raise eyebrows; to voice any substantive concerns, an act that fellow directors might see as non-collegial, time consuming, even headache inducing, and that the CEO is often likely to see as an affront; and then to deal with the aftermath of any query, including still more time expended and potential social strain incurred. For the theorist interested in developing a complete model of the effective monitor, it is essential to ask, "Who would have the motivation to engage in such behaviors?"

As a first step, it is important to distinguish between one's motives to be on a board and, once there, one's motivation to be a vigilant monitor. It is widely believed that individuals' reasons for joining corporate boards center around prestige, networking, and learning (Boivie, Graffin, & Pollock, 2012; Lorsch & MacIver, 1989; Masulis & Mobbs, 2014). Board seats serve as validation of one's place in the business elite, they provide opportunities to become connected with fellow elites, and they provide intellectual and professional stimulation (e.g., about new industries, technologies, marketplace trends, and management and governance). If these are the main reasons individuals take on board seats, one can reasonably ask whether they carry an expectation of hard work on behalf of shareholders, along the lines described above. For many individuals, board seats are gratifying and stimulating diversions, more avocations than vocations, and certainly not places where extreme exertion or strain is expected as part of the bargain.

Of course, professional directors who derive their livelihood from board seats are perhaps inclined to see themselves in a job, entailing such arduous work. Moreover, professional directors may be especially inclined to identify psychologically with their role as corporate directors (Hillman et al., 2008), thus bringing dedication to their monitoring efforts. However, these professionals (currently amounting to roughly one-quarter of all directors of major

firms; Conference Board, 2011; Spencer Stuart, 2013), also may have reasons not to engage in assertive monitoring. Given that monitoring is often seen—certainly by the CEO and often by fellow directors—as antagonistic or counter-normative (as described earlier), it can lead to one's dismissal from the focal board, as well as to difficulty in obtaining new board invitations (Gillespie & Zweig, 2010; Westphal & Stern, 2007). In short, individuals' reasons for joining boards do not necessarily translate into motivation to effectively monitor once there, and may even work against any such drive.

One might expect that a general sense of professionalism would motivate directors to be effective monitors (e.g., Fama, 1980). However, the continuing incidence of monitoring failures suggests that such a sense of professional duty is not universal among directors, at least not in requisite magnitude. Our own interpretation is that most directors bring a considerable sense of professional duty to their board seats, but we also suspect that this duty becomes diffused across their multiple roles so that each director implicitly gauges his or her own contributions in aggregate terms, rather than in terms of fulfilling the monitoring function per se. Picture a director, for example, who makes a point of being generous in contributing to boardroom discussions about, say, international trends, social media trends, or whatever, and who also makes a point of helping the CEO gain access to important external gatekeepers. Such a director is contributing abundantly on the resource provision front and, thus, might easily believe that he or she is largely doing what a good director does. At the extreme, a celebrity director (e.g., a former cabinet official or a Nobel Prize winner) might subconsciously believe that his or her mere presence on the board is a major contribution. In sum, we trust that most directors bring a healthy dose of professionalism to their board seats, but, at the same time, our belief is that they keep an implicit ledger of *all* their perceived contributions such that they might readily believe they are fulfilling their commitments in ways other than by monitoring.

It is reasonable to ask whether threats of lawsuits or personal stigmatization might prompt vigilant monitoring. With respect to lawsuits, directors can essentially count on not being held personally liable. Firms indemnify their directors with "bulletproof" insurance so that they face almost no personal exposure, as summed up by

Black, Cheffins, and Klausner: "Directors with state-of-the-art insurance policies face little out-of-pocket liability risk" (2006: 1056). And there is only scant evidence that a director's reputation will suffer for poor monitoring. Although studies have shown an association between company financial misconduct and subsequent departures of outside directors (e.g., Arthaud-Day et al., 2006; Cowen & Marcel, 2011; Srinivasan, 2005), these studies have not revealed whether such exits are involuntary or voluntary (from exasperation or fatigue). Nor is it known whether such occurrences affect subsequent board appointments (Ertimur, Ferri, & Maber, 2012).

The concept of psychological identity, noted briefly above, may be especially useful in understanding directors' motivational pulls. In a comprehensive treatment Hillman et al. (2008) discussed alternative identities of corporate directors. Some directors, the authors specified, identify primarily with CEOs (as might those who are currently CEOs themselves) and, thus, are not ideally suited to be monitors. Some identify with being directors (as might many professional directors, discussed earlier). And some identify with shareholders, which is ideal for effective fulfillment of the monitoring role.

A director's personal equity stake in the firm will especially enhance his or her identification with shareholders, as noted by Hillman et al. (2008). In this vein, prior research has pointed to directors' ownership stakes in the companies they oversee as a substantial incentive for careful monitoring (e.g., Bhagat et al., 1999; Fama & Jensen, 1983; for a meta-analysis see Dalton, Daily, Certo, & Roengpitya, 2003). Recognizing that many directors have only token holdings in the companies they serve, business observers and academics have argued that equity stakes cause directors to be much more conscientious in their duties, especially in monitoring (Elson, 1995; Vogelstein, 1998). Moreover, studies have shown that directors' equity holdings are associated with beneficial outcomes for shareholders, including long-term company performance (Bhagat & Tookes, 2012; Hambrick & Jackson, 2000), resistance to paying "greenmail" (Kosnik, 1987), dismissal of poorly performing CEOs (Hoskisson, Johnson, & Moesel, 1994), effectiveness of non-executive directors (Shen, 2005), and acquisition outcomes (Kroll, Walters, & Wright, 2008).

It is important to emphasize that the motivating impetus of equity ownership, as theorized and

operationalized by essentially all the researchers noted above, requires the director's personal purchase of shares—not shares received as part of compensation. There is a qualitative difference between putting one's own money on the line and being given a holding (summarized in Hambrick & Jackson, 2000). In fact, it can be argued that annual or periodic stock-based compensation is yet one more incentive for a director, above all, to retain his or her board seat and not rock the boat (Fama & Jensen, 1983). As for the size of the equity stake needed, researchers have proposed that it needs to be enough to propel a director's careful attention but not so much as to induce undesirable risk aversion, typically just a few percent of a director's personal net worth (Elson, 1995; Hambrick & Jackson, 2000).

In exactly this vein, an increasing proportion of public companies stipulate threshold ownership levels for their directors, either by requiring a multiple of their annual retainers or a specific dollar value of stock to be owned in a certain time frame (Conference Board, 2011). Regardless of whether a director has been required to buy shares or has done so voluntarily, a significant financial stake in the company is a potent inducement for effective monitoring.

In sum, in order to engage in the difficult task of monitoring, a director must be sufficiently motivated to exert himself or herself on behalf of shareholders. As summarized in Figure 1, such motivation might stem from intrinsic professionalism, or it might stem from extrinsic factors, such as one's own shareholdings or fear of lawsuits or stigmatization. Evidence suggests that requisite motivation is not universally present in today's corporate directors.

Summary

Our quad model builds on and integrates the fragmentary literature on the attributes needed for directors to be effective monitors. Instead of viewing these various qualities in a piecemeal, *ceteris paribus* manner, as is typical in the governance literature, we conceptualize the *entirety* of the ideal director. In line with the classic $E = f(A \times M)$ framework, which emphasizes that task effectiveness hinges on the interactive presence of multiple qualities in a person, we have argued that the four attributes of the quad model—in combination—greatly enhance the likelihood that a given director will be an effective monitor.

Moreover, we envision that the four qualities are mutually enhancing. For example, having the requisite expertise in a given domain elevates one's degree of independence, since the expert is able to seek out and objectively interpret appropriate information without relying totally on the CEO to provide it. Bandwidth amplifies both independence and expertise, providing the time and energy necessary to be able to pore over data and become even more informed about the firm's issues and intricacies. Perhaps most important, though, bandwidth enables a knowledgeable director to arrive at an affirmative answer to questions like this: "If I raise this issue, can I afford the time to deal with wherever it might take us, in terms of more meetings, more reports, added committee work, and so on?" And, of course, motivation is a necessary ingredient because it propels the director in applying the other three attributes. Without requisite motivation, which again we believe is lacking in many directors, the other qualities, even if abundantly possessed, will lie dormant or be exercised only half-heartedly. Having articulated the quad model, or the four essentials of the effective monitor, we are now in a position to make predictions about board effectiveness in preventing governance failures.

PREDICTIONS OF EFFECTIVE BOARD MONITORING

The ultimate merit of the quad model will hinge on whether it yields superior predictions of governance failures. Both academics and practitioners will benefit if the model, when extended to the level of the overall board, provides improved insights about whether effective monitoring is likely to occur, as reflected by the reduced likelihood of financial fraud, excessive CEO compensation, unsound acquisitions, and so on. In this section we describe the form and the logic for such predictions.

Let us first consider whether the presence of one director who has all four specified qualities will be beneficial for reducing governance failures in a given domain. As we have argued, such an individual not only will be *able* to engage in the challenging tasks of vigilant monitoring, as we have described them, but also will be *willing* to do so.

Perhaps most important, these attributes equip the director to surmount the prevailing social

pressures that inhibit effective monitoring, as documented in prior research. With a combination of three essential forms of ability (independence, expertise, and bandwidth), along with motivation, a quad-qualified director is not totally dependent on the CEO for information or analysis (Monks & Minow, 2011). Moreover, by possessing these qualities, the director is not overly concerned about a quid pro quo relationship with the CEO (McDonald & Westphal, 2011; Westphal et al., 2012) and is relatively unlikely to succumb to the CEO's ingratiatory efforts to gain acquiescence (Westphal, 1998). If this director detects a problem, he or she is likely to voice a concern—when others would not be able or willing to do so.

The quad-qualified director epitomizes the type of individual who can exert minority influence. In fact, our argument here is directly consistent with Grant and Patil's description of a "rich history of theory and research on minority influence, which suggests that the actions of single individuals can play a powerful role in challenging and changing unit norms" (2012: 551; see also Martin & Hewstone, 2012; Moscovici, 1980; Wood, Lundgren, Ouellette, Busceme, & Blackstone, 1994). According to this extensive line of research, when it comes to any complex issue, group members typically hold alternative views. For the most part, however, only the majority view gets voiced; those who hold minority views tend to keep their opinions or ideas private, primarily out of concern for group consensus and time/efficiency considerations. However, if a minority view *is* voiced, especially in a way that seems well reasoned and emphatic, it often sets off a cascade of open debate. Others who privately hold the minority view now jump in, and even those who hold the majority view will revisit their own thinking, especially if the initiating minority member is "consistent, confident, and committed in their judgments" (Martin & Hewstone, 2012: 92).

We anticipate that a quad-qualified director will tend to speak with just such conviction and authority, and—as important—will be seen in that way. By virtue of his or her expertise and motivation, as well as demonstrated vigilance—being alert to red flags, engaging in proactive inquiry, prompting discussions of concerns when warranted, pursuing information until satisfactory answers can be given—this director will be able to exert minority influence, as scholars have described it, prompting fellow directors to reconsider their own views and

possibly add their own expressions of concern. At best, this modeling of monitoring behaviors, active inquiry, and voicing of concerns by a lone quad-qualified director may help to change the board's norms, from acquiescence to vigilance; as researchers have noted, such "challengers can exert minority influence on norms" (Grant & Patil, 2012: 550).

At the least, this director should raise the interest of other directors, even though they may not have all four attributes themselves. As Westphal and Bednar (2005) described in their study of pluralistic ignorance on boards, one of the main obstacles to board effectiveness is that directors conclude that silence from their colleagues is "social proof" all is well. The voice of the quad-qualified director breaks this silence, prompting others to take serious note and perhaps add their voices. The presence of such a director can engender a healthy alertness and cognitive tension within the board, deemed valuable to effective governance (Forbes & Milliken, 1999). We especially envision that any fellow directors who possess independence, bandwidth, and motivation (lacking only expertise in the domain at hand) will readily rally with the quad-qualified director (Forbes & Milliken, 1999).

Additionally, a quad-qualified director's ongoing presence and known penchant for vigilance will help to dissuade the CEO from proposing or engaging in dubious actions in the first place. If the CEO knows that even a single director has the requisite wherewithal and drive, the CEO will be more careful and restrained (in a given domain) than if there were no such alert and informed overseer (Khurana & Pick, 2004). Thus, the presence of at least one quad-qualified director confers a combination of ex ante prevention and ex post detection and correction of managerial missteps.

Even though prior research has highlighted the "dark side" of board dynamics (e.g., acquiescence, pluralistic ignorance; see Westphal & Zajac, 2013), we have stated from the outset that we envision that most directors are conscientious and alert to their fiduciary responsibilities but are personally limited—in various ways and in various degrees, as described—in their capacity to fulfill those duties. Moreover, we have already stated that we assume that the great majority of CEOs are conscientious and mean well, but still humanly susceptible to miscalculations and missteps. Of course, if a company's CEO is intrinsically malevolent, or if a board is

pervasively compromised, a single director, no matter how qualified, may not be able to accomplish much. In most cases, however, a single quad-qualified director can be a potent factor in helping to avoid problems.

Proposition 2: The presence of one director who has all four qualities specified by the quad model (a quad-qualified director) in a given monitoring domain will reduce the likelihood of governance failures in that domain, as compared to having no such directors on the board.

While the presence of even one quad-qualified director will improve a board's monitoring effectiveness in a given domain, the presence of two or more such directors will bring about far greater benefits. As noted above, a minority's influence in group dynamics is in part dependent on the perceived validity of the minority's stance (Moscovici, 1985). Even though a quad-qualified director's attributes, including expertise and independence, will help to establish his or her credibility (as argued in the prior proposition), there is still a chance that majority members will discount this sole voice, concluding that the director is somehow amiss. But when the minority consists of at least two individuals, the validity of their view is much harder to dismiss out of hand, and due discourse is much more likely to ensue (Asch, 1951; Moscovici, Lage, & Naffrechoux, 1969).

This pattern is further corroborated by research showing that when groups are engaged in fact-based or "intellectual" tasks, they typically accept as correct a solution proposed by two members (e.g., Laughlin, 1996). Moreover, having at least two group members concur on a solution has been found to lead to more effective group decisions on intellectual tasks: "two correct group members are generally necessary and sufficient for a correct group response" (Laughlin & Adamopoulos, 1980: 946).

Overall, then, prior research suggests that a concern raised by two quad-qualified directors will be seen by the other directors as being far more credible than a concern raised by just one. Two such directors will be able to reinforce each other as they raise their voices, and their combined voices will often stir other directors to action, or at least to engage in careful scrutiny of the issue at hand (Martin & Hewstone, 2012; Wood et al., 1994). A concern raised by two

quad-qualified directors will tend to turn the social proof phenomenon on its head: silence is no longer evidence that everything is fine. Active questioning by these two directors will create a social context in which, at the very least, it becomes difficult for the others to be inattentive and uncritical with respect to the issue at hand, making it hard for them to remain passively agreeable with management. Moreover, if two members of the board are actively engaging in monitoring behaviors and raising their concerns, the likelihood increases that the other directors will be socially induced into engaging in more open and active questioning of management themselves (Grant & Patil, 2012). As such, the presence of at least two quad-qualified directors may be enough to trigger a shift in the board's overall norms toward putting more effort into monitoring—norms that are critical to the board's effective functioning (Forbes & Milliken, 1999).

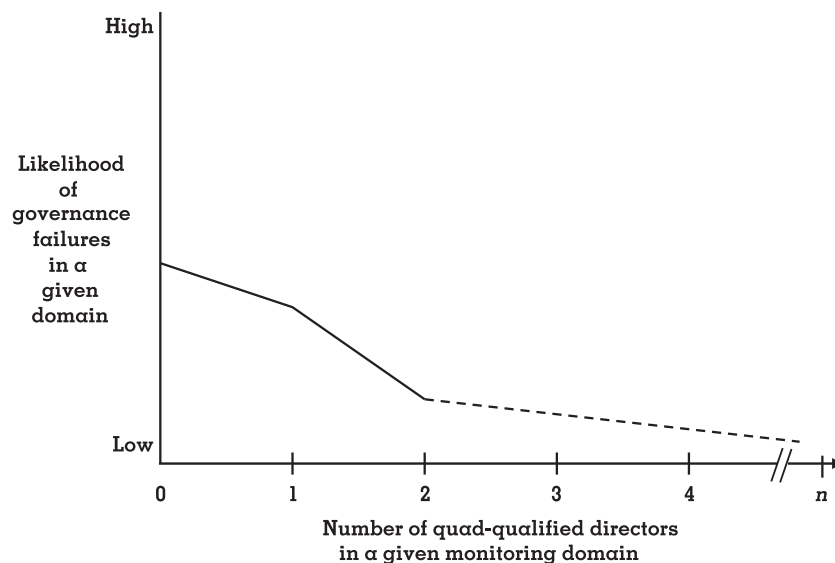
Proposition 3: The presence of two or more directors who are quad-qualified in a given monitoring domain will reduce the likelihood of governance failures in that domain far more than will the presence of one such director.

Our board-level propositions are portrayed graphically in Figure 2. As shown, the presence of one quad-qualified director reduces the

likelihood of a governance failure in a given domain, and the presence of two such directors sharply reduces the chances of problems. We show the effects of three or more quad-qualified directors (again, in a given domain) as a dashed line because we have no clear basis for additional formal propositions. On the one hand, it can be argued that the benefits of having two quad-qualified directors are so great that any added improvement from having three (or more), in terms of reduced chances of governance failures in a given domain, would be minor. Alternatively, it can be argued that each additional quad-qualified director would generate some improvement, in terms of reduced chances of governance failures. On balance, we portray the effects of three or more quad-qualified directors as a slightly sloping dashed line. Perhaps most important (but not conveyed by the graph), increases in the number of quad-qualified directors mean that, at some point, they constitute the prevailing viewpoint, which would almost certainly turn the tide toward a board norm of vigilant monitoring (Forbes & Milliken, 1999; Wood et al., 1994).

Finally, even though each director's potential for effective monitoring must be assessed on a domain-by-domain basis, our model also has clear implications for predicting the overall incidence of governance failures in firms. It is

FIGURE 2
Expected Association Between the Number of Quad-Qualified Directors and the Likelihood of Governance Failures



entirely possible that a given director (by virtue of far-ranging, sophisticated expertise) might be quad qualified in multiple monitoring domains; moreover, it is certainly possible that different directors on a board will be quad qualified in different domains. For instance, one director might be quad qualified in financial matters, while another might be quad qualified in matters of regulatory compliance and large acquisitions. These possibilities point to a corollary of our baseline proposition: *the more monitoring domains in which a board has quad-qualified directors, the lower the overall incidence of governance failures.* Put another way, the more domains of monitoring expertise possessed by those directors who also have independence, bandwidth, and motivation, the lower the overall likelihood of governance failures.

RESEARCH AGENDA

Our theoretical model points to an array of research possibilities, several of which we highlight here. Most obviously, the quad model needs to be empirically tested for its potential—relative to customary approaches—to explain governance failures.

Testing the Model

To test the quad model, a researcher would need to focus on a specific domain or form of governance failure, such as financial fraud, excessive CEO compensation, or acquisition overpayments, and generate a sample of firms that vary on this outcome measure (possibly using matched pairs, state-based sampling, or random sampling; e.g., Harris & Bromiley, 2007; Kim et al., 2013). Next the researcher would need to develop operationalizations of the four elements of the quad model, guided by prior research or new insights (including from our Figure 1), and then code for the presence versus absence of each quality in each director (in the period leading up to the observed outcome). For instance, a director might be coded as being independent if he or she was unaffiliated and selected by a nominating committee consisting only of unaffiliated directors. (We discuss the additional opportunity to experiment with alternative operationalizations below.) A director coded as having all four attributes would then be counted as quad qualified. The researcher would generate counts of the

number of quad-qualified directors on each company's board. Then, including suitable control variables, the researcher would use regression analysis to observe the statistical effects of having one or two (or more) quad-qualified directors on the incidence of the governance failure under study.

Finally, for the most rigorous test, the researcher would place the theory in competition with the customary perspective on board qualifications. As discussed earlier, governance researchers generally rely on overall board averages for characterizing the monitoring potential of boards. Such indicators, however, ignore the reality suggested by our quad model—that a given director needs *multiple* qualities to be an effective monitor. In turn, the customary approach tends to inflate the appearance that a given board is suitable, while obscuring the possibility that there might actually be no fully capable and motivated directors on it.

This means that if a researcher were to develop director-level indicators of each of our four constructs (independence, expertise in a given domain, bandwidth, and motivation) and then calculate board-level averages (or totals) of each of the four metrics, the inclusion of all four variables in a regression model would not be nearly as predictive of governance failures in that domain as would be a simple binary indicator of whether there was one or more directors who possessed threshold amounts of all four qualities. That is, the quad model would be deemed superior if it explained more variance in the outcome measure than did the alternative model using the four conventional board proportions.

Additional Research Avenues

The quad model opens up additional research paths as well. First, there is great opportunity to experiment with and refine the measurement of the four director qualities the quad model comprises. For instance, are predictions of governance failures improved if directors who are active executives at other firms are coded as having, or as not having, requisite bandwidth? The coding of directors who are currently CEOs at other firms presents an especially interesting avenue of inquiry: there is now evidence that such directors are not objective in their evaluation of other CEOs (e.g., see Westphal & Zajac, 2013), yet they tend to be equipped with a range of expertise that could prove valuable for

monitoring. Also, what are the best ways for assessing whether a director holds a meaningful equity stake in a company? More broadly, using survey methods, researchers might examine the factors that affect a director's identification with shareholders. Relatedly, should the four attributes of our model receive different weights? Is it possible, for instance, for a director with sufficient motivation to be able to surmount shortages of the other qualities? Might a director who only lacks expertise in a domain be readily educated and enlisted by a director who has such expertise?

Second, the quad model raises a host of interesting questions regarding intraboard power and group dynamics. Our earlier arguments, derived from the minority influence literature, suggest that quad-qualified directors will tend to have considerable informal influence within a board. But what happens if there are one or two quad-qualified directors *and* the CEO is also extremely powerful? Or what if there is a quad-qualified director on the board but the board chair (or lead director) is less well equipped? And how might the presence of multiple inside directors (beyond the CEO) affect the potential effectiveness of a quad-qualified outside director? Although it is now rare for multiple insiders to be on a board, they might help a quad-qualified director by contributing in-depth firm knowledge (Baysinger & Hoskisson, 1990), or they might hinder the monitoring efforts of a quad-qualified director by obscuring key facts. The pursuit of these types of questions would require field data from either interviews or surveys.

Third, there is a great need to know more about the ideal boardroom style, or persona, for a quad-qualified director. While such a director needs to be persistent to be influential (e.g., see Wood et al., 1994), we surmise that an aggressively confrontational "pit bull" approach generally will not be effective. Instead, the savviest quad-qualified director might rely on a mixture of seriousness and good-naturedness, pointing at others while being self-effacing, and above all knowing how to build coalitions and engage in informal discussions. An improved understanding of the social dynamics of effective monitoring is a high priority.

Fourth, the quad model, which speaks to ideal board composition, could be combined with considerations of board structure to yield improved predictions of governance. For instance, are the drawbacks of duality (where the CEO is

also chairperson) especially heightened when there are no quad-qualified directors on the board? In instances of duality, is it ideal (or even essential) for the lead director to be quad qualified? And what are the implications of our theory for committee composition? Is it ideal to have at least one quad-qualified director on each major committee (audit, nominating, compensation) with the specific expertise called for by each committee's domain?

Fifth, our theory raises issues regarding the overall supply and demand of fully suitable directors. Following from the requirements of SOX legislation for greater expertise and time commitments from directors, companies already have substantially increased director compensation (Linck et al., 2009). The quad model implies that there needs to be even more stringent selection criteria, which will tend to push director pay yet higher. As we have emphasized throughout, the economic value of improved monitoring may warrant substantially increased outlays. Alternatively, perhaps board nominating committees need to consider new sources for directors, as we discuss below.

Sixth, the model should be tested for its potential to explain other governance outcomes that are not strictly products of "monitoring," possibly including board effectiveness in new CEO selection or advances in corporate social responsibility. The relevance of the quad model might extend well beyond the domain of failure prevention; indeed, a host of corporate outcomes, including overall company performance, might be explained by the logic we have set forth.

Finally, the underlying logic of the ability \times motivation framework, which we have applied in developing the quad model, might prompt a search for additional attributes of the ideal monitor. Prior governance research points squarely to the four elements that make up our model, but it is possible that additional director qualities—perhaps especially values or personality traits—might ultimately be woven into an expanded model of the effective monitor.

PRACTICAL MATTERS

Although the quad model is strictly a predictive theory, we recognize the need to comment on its practical implications. The stakes involved are large, since the insights from the model

might help to greatly reduce the incidence of highly costly governance failures.

There is no question that the quad model specifies a rare individual as corporate monitor, but still a caliber of overseer whom, we believe, shareholders want watching out for their interests. As such, it is reasonable to consider the policies and practices that might increase the presence of such directors on corporate boards. In this section we present a few such suggestions. Some of these initiatives are already being pursued by an increasing number of corporations. Following from the logic of the quad model, however, none of these practices is a cure-all. For the benefit of shareholders, companies will need to institute an array of programs and priorities for increasing the number of quad-qualified directors on their boards.

Foremost, our model calls for outside directors who are selected by nominating committees consisting only of independent directors (and with minimal involvement of the CEO). These committees might especially target recently retired executives. Even though these individuals may feel some rapport with the focal CEO, it probably will not be as great as that felt by sitting CEOs; moreover, retired executives tend to have multiple domains of relevant expertise, as well as considerable bandwidth. Professional directors also should be sought, since they, too, tend to have bandwidth (subject to their other board seats) and may be highly motivated by their professional identity (Hillman et al., 2008).

Selection committees should look in new places as well. For example, we are perplexed that board rosters rarely include retired partners of public accounting firms, who might be ideal as quad-qualified directors (at least when it comes to financial matters). Moreover, selection committees need to be more open to considering overlooked demographic pools. For instance, women hold a far higher proportion of senior professional posts (especially in accounting and auditing) and executive positions than they do board seats (Toegel, 2011).

Companies might encourage or even require directors to undergo periodic training—to update them both on state-of-the-art board practices and on emerging business issues (e.g., data security, sustainability). Such programs are available from the National Association of Corporate Directors (NACD) and from elite universities (e.g., Columbia, Northwestern, Stanford).

Companies might also require directors to purchase certain threshold amounts of stock. A more palatable approach, proposed by Hambrick and Jackson (2000), would be to offer matching funds for directors' personal purchases of company shares.

In addition, companies might institute term limits for their directors. Over time, directors can become psychologically committed to the firm's policies (Golden-Biddle & Rao, 1997), or develop friendship ties and become beholden to the firm's CEO (Bhagat & Black, 1999; Sutton, 2004), thus losing their objectivity. Term limits would help alleviate this.

Finally, boards should conduct annual audits to identify the specific domains in which monitoring expertise is needed and the degree to which current directors possess such expertise (cf. Mule & Elson, 2014). Relevant domains might include those that are perennially important (such as financial matters), as well as those that are newly important because of the firm's specific situation (e.g., acquisitions) or macro trends (data security).

SUMMARY

Over the last two decades there have been numerous initiatives to improve the governance of public corporations in the United States, but board failures still abound. Our theory recognizes that there are multiple obstacles to effective monitoring, which, in turn, necessitates multiple qualities—all in a given director—for surmounting those hurdles. Specifically, to be an effective monitor, a director must have all four of the following qualities: independence, domain-specific expertise, bandwidth, and motivation. For academics who are interested in improving their predictions of governance failures, as well as for shareholders who wish to assess the monitoring potential of a given board, the question becomes, "How many quad-qualified directors are on the board?"

REFERENCES

- Acharya, A. G., & Pollock, T. G. 2013. Shoot for the stars? Predicting the recruitment of prestigious directors at newly public firms. *Academy of Management Journal*, 56: 1396–1419.
- Adams, R. B., & Ferreira, D. 2007. A theory of friendly boards. *Journal of Finance*, 62: 217–250.

- Adams, R. B., Hermalin, B. E., & Weisbach, M. S. 2010. The role of boards of directors in corporate governance: A conceptual framework and survey. *Journal of Economic Literature*, 48: 58–107.
- Arthaud-Day, M. L., Certo, S. T., Dalton, C. M., & Dalton, D. R. 2006. A changing of the guard: Executive and director turnover following corporate financial restatements. *Academy of Management Journal*, 49: 1119–1136.
- Asch, S. E. 1951. Effects of group pressure upon the modification and distortion of judgments. In H. Guetzkow (Ed.), *Groups, leadership, and men*: 222–236. Pittsburgh: Carnegie Mellon University Press.
- Baysinger, B., & Hoskisson, R. E. 1990. The composition of boards of directors and strategic control: Effects on corporate strategy. *Academy of Management Review*, 15: 72–87.
- Bebchuk, L. A., & Fried, J. M. 2003. Executive compensation as an agency problem. *Journal of Economic Perspectives*, 17(3): 71–92.
- Bhagat, S., & Black, B. 1999. The uncertain relationship between board composition and firm performance. *Business Lawyer*, 54: 921–963.
- Bhagat, S., Carey, D. C., & Elson, C. M. 1999. Director ownership, corporate performance, and management turnover. *Business Lawyer*, 54: 885–919.
- Bhagat, S., & Tookes, H. 2012. Voluntary and mandatory skin in the game: Understanding outside directors' stock holdings. *European Journal of Finance*, 18: 191–207.
- Black, B. S., Cheffins, B. R., & Klausner, M. 2006. Outside director liability. *Stanford Law Review*, 58: 1055–1160.
- Boeker, W. 1992. Power and managerial dismissal: Scapegoating at the top. *Administrative Science Quarterly*, 37: 400–421.
- Boivie, S., Graffin, S. D., & Pollock, T. G. 2012. Time for me to fly: Predicting director exit at large firms. *Academy of Management Journal*, 55: 1334–1359.
- Brudney, V. 1982. The independent director: Heavenly city or Potemkin village? *Harvard Law Review*, 95: 597–659.
- Campion, M. A., Fink, A. A., Ruggeberg, B. J., Carr, L., Phillips, G. M., & Odman, R. B. 2011. Doing competencies well: Best practices in competency modeling. *Personnel Psychology*, 64: 225–262.
- Carpenter, M. A., Pollock, T. G., & Leary, M. M. 2003. Testing a model of reasoned risk-taking: Governance, the experience of principals and agents, and global strategy in high-technology IPO firms. *Strategic Management Journal*, 24: 803–820.
- Carpenter, M. A., & Westphal, J. D. 2001. The strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decision making. *Academy of Management Journal*, 44: 639–660.
- Cashman, G. D., Gillan, S. L., & Jun, C. 2012. Going overboard? On busy directors and firm value. *Journal of Banking & Finance*, 36: 3248–3259.
- Certo, S. T. 2003. Influencing initial public offering investors with prestige: Signaling with board structures. *Academy of Management Review*, 28: 432–446.
- Chen, G., Hambrick, D. C., & Pollock, T. G. 2008. Puttin' on the ritz: Pre-IPO enlistment of prestigious affiliates as deadline-induced remediation. *Academy of Management Journal*, 51: 954–975.
- Conference Board. 2011. *The 2011 U.S. director compensation and board practices report*. New York: Conference Board.
- Cowen, A. P., & Marcel, J. J. 2011. Damaged goods: Board decisions to dismiss reputationally compromised directors. *Academy of Management Journal*, 54: 509–527.
- Daily, C. M., & Dalton, D. R. 1995. CEO and director turnover in failing firms: An illusion of change? *Strategic Management Journal*, 16: 393–400.
- Daily, C. M., Johnson, J. L., & Dalton, D. R. 1999. On the measurements of board composition: Poor consistency and a serious mismatch of theory and operationalization. *Decision Sciences*, 30: 83–106.
- Dalton, D. R., Daily, C. M., Certo, S. T., & Roengpitya, R. 2003. Meta-analyses of financial performance and equity: Fusion or confusion? *Academy of Management Journal*, 46: 13–26.
- Dalton, D. R., Daily, C. M., Ellstrand, A. E., & Johnson, J. L. 1998. Meta-analytic reviews of board composition, leadership structure, and financial performance. *Strategic Management Journal*, 19: 269–290.
- Dalton, D. R., Hitt, M. A., Certo, S. T., & Dalton, C. M. 2007. The fundamental agency problem and its mitigation: Independence, equity, and the market for corporate control. *Academy of Management Annals*, 1: 1–64.
- David, P., Kochhar, R., & Levitas, E. 1998. The effect of institutional investors on the level and mix of CEO compensation. *Academy of Management Journal*, 41: 200–208.
- DeFond, M. L., Hann, R. N., & Hu, X. 2005. Does the market value financial expertise on audit committees of boards of directors? *Journal of Accounting Research*, 43: 153–193.
- Dowell, G. W. S., Shackell, M. B., & Stuart, N. V. 2011. Boards, CEOs, and surviving a financial crisis: Evidence from the internet shakeout. *Strategic Management Journal*, 32: 1025–1045.
- Duchin, R., Matsusaka, J. G., & Ozbas, O. 2010. When are outside directors effective? *Journal of Financial Economics*, 96: 195–214.
- Eisenhardt, K. M. 1989. Agency theory: An assessment and review. *Academy of Management Review*, 14: 57–74.
- Elson, C. M. 1995. The duty of care, compensation, and stock ownership. *University of Cincinnati Law Review*, 63: 649–711.
- Ertimur, Y., Ferri, F., & Maber, D. A. 2012. Reputation penalties for poor monitoring of executive pay: Evidence from option backdating. *Journal of Financial Economics*, 104: 118–144.
- Fama, E. F. 1980. Agency problems and the theory of the firm. *Journal of Political Economy*, 88: 288–307.
- Fama, E. F., & Jensen, M. 1983. The separation of ownership and control. *Journal of Law and Economics*, 26: 301–325.
- Ferris, S. P., Jagannathan, M., & Pritchard, A. C. 2003. Too busy to mind the business? Monitoring by directors with

- multiple board appointments. *Journal of Finance*, 58: 1087–1112.
- Fich, E. M., & Shivdasani, A. 2006. Are busy boards effective monitors? *Journal of Finance*, 61: 689–724.
- Finkelstein, S., Hambrick, D. C., & Cannella, A. A. 2009. *Strategic leadership: Theory and research on executives, top management teams, and boards*. New York: Oxford University Press.
- Forbes, D. P., & Milliken, F. J. 1999. Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups. *Academy of Management Review*, 24: 489–505.
- Gillespie, J., & Zweig, D. 2010. *Money for nothing: How CEOs and boards enrich themselves while bankrupting America*. New York: Simon & Schuster.
- Golden-Biddle, K., & Rao, H. 1997. Breaches in the boardroom: Organizational identity and conflicts of commitment in a nonprofit organization. *Organization Science*, 8: 593–611.
- Gordon, J. N. 2007. The rise of independent directors in the United States, 1950–2005: Of shareholder value and stock market prices. *Stanford Law Review*, 59: 1465–1568.
- Grant, A. M., & Patil, S. V. 2012. Challenging the norm of self-interest: Minority influence and transitions to helping norms in work units. *Academy of Management Review*, 37: 547–568.
- Green, S. 2004. Unfinished business: Abolish the imperial CEO! *Journal of Corporate Accounting & Finance*, 15(6): 19–22.
- Hambrick, D. C., & Jackson, E. M. 2000. Outside directors with a stake: The linchpin in improving governance. *California Management Review*, 42(4): 108–127.
- Harris, J., & Bromiley, P. 2007. Incentives to cheat: The influence of executive compensation and firm performance on financial misrepresentation. *Organization Science*, 18: 350–367.
- Haynes, K. T., & Hillman, A. 2010. The effect of board capital and CEO power on strategic change. *Strategic Management Journal*, 31: 1145–1163.
- Hayward, M. L. A., & Hambrick, D. C. 1997. Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. *Administrative Science Quarterly*, 42: 103–127.
- Hermalin, B. E., & Weisbach, M. S. 1998. Endogenously chosen boards of directors and their monitoring of the CEO. *American Economic Review*, 88: 96–118.
- Higgins, M. C., & Gulati, R. 2003. Getting off to a good start: The effects of upper echelon affiliations on underwriter prestige. *Organization Science*, 14: 244–263.
- Hillman, A. J., Cannella, A. A., & Paetzold, R. L. 2000. The resource dependence role of corporate directors: Strategic adaptation of board composition in response to environmental change. *Journal of Management Studies*, 37: 235–256.
- Hillman, A. J., & Dalziel, T. 2003. Boards of directors and firm performance: Integrating agency and resource dependence perspectives. *Academy of Management Review*, 28: 383–396.
- Hillman, A. J., Nicholson, G., & Shropshire, C. 2008. Directors' multiple identities, identification, and board monitoring and resource provision. *Organization Science*, 19: 441–456.
- Hölmstrom, B. 1979. Moral hazard and observability. *Bell Journal of Economics*, 10: 74–91.
- Hoskisson, R. E., Johnson, R. A., & Moesel, D. D. 1994. Corporate divestiture intensity in restructuring firms: Effects of governance, strategy, and performance. *Academy of Management Journal*, 37: 1207–1251.
- Jensen, M., & Zajac, E. J. 2004. Corporate elites and corporate strategy: How demographic preferences and structural position shape the scope of the firm. *Strategic Management Journal*, 25: 507–524.
- Jensen, M. C. 1993. The modern industrial revolution, exit, and the failure of internal control systems. *Journal of Finance*, 48: 831–880.
- Judge, W., & Zeithaml, C. P. D. 1992. Institutional and strategic choice perspectives on board involvement in the strategic decision process. *Academy of Management Journal*, 35: 766–794.
- Khanna, P., Jones, C. D., & Boivie, S. 2014. Director human capital, information processing demands, and board effectiveness. *Journal of Management*, 40: 557–585.
- Khurana, R., & Pick, K. 2004. The social nature of boards. *Brooklyn Law Review*, 70: 1259–1286.
- Kim, J. Y., Roden, D. M., & Cox, S. R. 2013. The composition and compensation of the board of directors as predictors of corporate fraud. *Accounting and Finance Research*, 2(3): 142–154.
- Klein, A. 2002. Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, 33: 375–400.
- Kor, Y. Y., & Misangyi, V. F. 2008. Outside directors' industry-specific experience and firms' liability of newness. *Strategic Management Journal*, 29: 1345–1355.
- Kosnik, R. D. 1987. Greenmail: A study of board performance in corporate governance. *Administrative Science Quarterly*, 32: 163–185.
- Krishnan, G. V., & Visvanathan, G. 2008. Does the SOX definition of an accounting expert matter? The association between audit committee directors' accounting expertise and accounting conservatism. *Contemporary Accounting Research*, 25: 827–858.
- Kroll, M., Walters, B. A., & Wright, P. 2008. Board vigilance, director experience, and corporate outcomes. *Strategic Management Journal*, 29: 363–382.
- Langevoort, D. C. 2001. Human nature of corporate boards: Law, norms, and the unintended consequences of independence and accountability. *Georgetown Law Journal*, 89: 797–832.
- Laughlin, P. R. 1996. Group decision making and collective induction. In E. H. Witte & J. D. Davis (Eds.), *Understanding group behavior: Consensual action by small groups*: 61–80. Mahwah, NJ: Lawrence Erlbaum Associates.
- Laughlin, P. R., & Adamopoulos, J. 1980. Social combination processes and individual learning for six-person

- cooperative groups on an intellectual task. *Journal of Personality and Social Psychology*, 38: 941–947.
- Lawler, E. E. 1966. Ability as a moderator of the relationship between job attitudes and job performance. *Personnel Psychology*, 19: 153–164.
- Leblanc, R., & Gillies, J. 2005. *Inside the boardroom: How boards really work and the coming revolution in corporate governance*. Chichester, UK: Wiley.
- Linck, J. S., Netter, J. M., & Yang, T. 2009. The effects and unintended consequences of the Sarbanes-Oxley Act on the supply and demand for directors. *Review of Financial Studies*, 22: 3287–3328.
- Lipton, M., & Lorsch, J. W. 1992. A modest proposal for improved corporate governance. *Business Lawyer*, 48: 59–77.
- Lorsch, J. W., & MacIver, E. 1989. *Pawns or potentates: The reality of America's corporate boards*. Boston: Harvard Business School Press.
- Mace, M. L. 1971. *Directors: Myth and reality*. Boston: Harvard Business School Press.
- Maier, N. R. 1955. *Psychology in industry* (2nd ed.). Boston: Houghton-Mifflin.
- Martin, R., & Hewstone, M. 2012. Minority influence: Revisiting Moscovici's blue-green afterimage studies. In J. R. Smith & S. A. Haslam (Eds.), *Social psychology: Revisiting the classic studies*: 91–105. London: Sage.
- Masulis, R. W., & Mobbs, S. 2014. Independent director incentives: Where do talented directors spend their limited time and energy? *Journal of Financial Economics*, 111: 406–429.
- McDonald, M. L., & Westphal, J. D. 2011. My brother's keeper? CEO identification with the corporate elite, social support among CEOs, and leader effectiveness. *Academy of Management Journal*, 54: 661–693.
- McDonald, M. L., Westphal, J. D., & Graebner, M. E. 2008. What do they know? The effects of outside director acquisition experience on firm acquisition performance. *Strategic Management Journal*, 29: 1155–1177.
- Miller, G. S. 2006. The press as a watchdog for accounting fraud. *Journal of Accounting Research*, 44: 1001–1033.
- Misangyi, V. F., & Acharya, A. G. 2014. Substitutes or complements? A configurational examination of corporate governance mechanisms. *Academy of Management Journal*, 57: 1681–1705.
- Mitchell, T. R., & Daniels, D. 2003. Motivation. In W. C. Borman, D. R. Ilgen, R. J. Kilmoski, & I. B. Weiner (Eds.), *Handbook of psychology. Volume 12: Industrial organizational psychology*: 225–254. New York: Wiley.
- Mizruchi, M. S. 1983. Who controls whom? An examination of the relation between management and boards of directors in large American corporations. *Academy of Management Review*, 8: 426–435.
- Mizruchi, M. S., & Stearns, L. B. 1994. A longitudinal study of borrowing by large American corporations. *Administrative Science Quarterly*, 39: 118–140.
- Monks, R. A. G., & Minow, N. 2011. *Corporate governance* (5th ed.). Chichester, UK: Wiley.
- Moscovici, S. 1980. Toward a theory of conversion behavior. *Advances in Experimental Social Psychology*, 13: 209–239.
- Moscovici, S. 1985. Social influence and conformity. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (3rd ed.): 347–412. New York: Random House.
- Moscovici, S., Lage, E., & Naffrechoux, M. 1969. Influence of a consistent minority on the responses of a majority in a color perception task. *Sociometry*, 32: 365–380.
- Mule, A. C., & Elson, C. M. 2014. A new kind of captured board. *Directors & Boards*, 38(2): 27–29.
- Pfeffer, J. 1972. Size and composition of corporate boards of directors: The organization and its environment. *Administrative Science Quarterly*, 17: 218–228.
- Pfeffer, J., & Salancik, G. R. 1978. *The external control of organizations: A resource dependence perspective*. New York: Harper & Row.
- Pollock, T. G., Chen, G., Jackson, E. M., & Hambrick, D. C. 2010. How much prestige is enough? Assessing the value of multiple types of high-status affiliates for young firms. *Journal of Business Venturing*, 25: 6–23.
- Rediker, K. J., & Seth, A. 1995. Boards of directors and substitution effects of alternative governance mechanisms. *Strategic Management Journal*, 16: 85–99.
- Reinholt, M., Pedersen, T., & Foss, N. J. 2011. Why a central network position isn't enough: The role of motivation and ability for knowledge sharing in employee networks. *Academy of Management Journal*, 54: 1277–1297.
- Ruigrok, W., Peck, S., Tacheva, S., Greve, P., & Hu, Y. 2006. The determinants and effects of board nomination committees. *Journal of Management & Governance*, 10: 119–148.
- Sanders, W. G., & Hambrick, D. C. 2007. Swinging for the fences: The effects of CEO stock options on company risk taking and performance. *Academy of Management Journal*, 50: 1055–1078.
- Shen, W. 2005. Improve board effectiveness: The need for incentives. *British Journal of Management*, 16(S1): S81–S89.
- Shleifer, A., & Vishny, R. W. 1997. A survey of corporate governance. *Journal of Finance*, 52: 737–783.
- Spencer Stuart. 2013. *Spencer Stuart board index 2013*. Chicago: Spencer Stuart.
- Srinivasan, S. 2005. Consequences of financial reporting failure for outside directors: Evidence from accounting restatements and audit committee members. *Journal of Accounting Research*, 43: 291–334.
- Sutton, G. 2004. Rules for rock-solid governance. *Directors & Boards*, 28(2): 18–20.
- Tian, J. J., Haleblum, J. J., & Rajagopalan, N. 2011. The effects of board human and social capital on investor reactions to new CEO selection. *Strategic Management Journal*, 32: 731–747.
- Toegel, G. 2011. Disappointing statistics, positive outlook. *Forbes*, February 18: <http://www.forbes.com/2011/02/18/women-business-management-forbes-woman-leadership-corporate-boards.html>.
- Tuggle, C. S., Sirmon, D. G., Reutzel, C. R., & Bierman, L. 2010. Commanding board of director attention: Investigating how organizational performance and CEO duality affect

- board members' attention to monitoring. *Strategic Management Journal*, 31: 946–968.
- Vogelstein, J. L. 1998. As I, an owner-director, see it. *Directors & Boards*, 22(4): 95–96.
- Walsh, J. P., & Seward, J. K. 1990. On the efficiency of internal and external corporate control mechanisms. *Academy of Management Review*, 15: 421–458.
- Westphal, J. D. 1998. Board games: How CEOs adapt to increases in structural board independence from management. *Administrative Science Quarterly*, 43: 511–537.
- Westphal, J. D. 1999. Collaboration in the boardroom: Behavioral and performance consequences of CEO-board social ties. *Academy of Management Journal*, 42: 7–24.
- Westphal, J. D., & Bednar, M. K. 2005. Pluralistic ignorance in corporate boards and firms' strategic persistence in response to low firm performance. *Administrative Science Quarterly*, 50: 262–298.
- Westphal, J. D., & Khanna, P. 2003. Keeping directors in line: Social distancing as a control mechanism in the corporate elite. *Administrative Science Quarterly*, 48: 361–398.
- Westphal, J. D., Park, S. H., McDonald, M. L., & Hayward, M. L. A. 2012. Helping other CEOs avoid bad press: Social exchange and impression management support among CEOs in communications with journalists. *Administrative Science Quarterly*, 57: 217–268.
- Westphal, J. D., & Stern, I. 2006. The other pathway to the boardroom: Interpersonal influence behavior as a substitute for elite credentials and majority status in obtaining board appointments. *Administrative Science Quarterly*, 51: 169–204.
- Westphal, J. D., & Stern, I. 2007. Flattery will get you everywhere (especially if you are a male Caucasian): How ingratiation, boardroom behavior, and demographic minority status affect additional board appointments at U.S. companies. *Academy of Management Journal*, 50: 267–288.
- Westphal, J. D., & Zajac, E. J. 2013. A behavioral theory of corporate governance: Explicating the mechanisms of socially situated and socially constituted agency. *Academy of Management Annals*, 7: 607–661.
- Withers, M. C., Hillman, A. J., & Cannella, A. A. 2012. A multidisciplinary review of the director selection literature. *Journal of Management*, 38: 243–277.
- Wood, W., Lundgren, S., Ouellette, J. A., Busceme, S., & Blackstone, T. 1994. Minority influence: A meta-analytic review of social influence processes. *Psychological Bulletin*, 115: 323–345.

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