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Who's the Boss at the Top? A Micro-Level Analysis of Director Expertise, Status and Conformity Within Boards

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ABSTRACT In this paper we address how director expertise impacts a director's social status and conformity within the board. Our results, derived from two unique multi-source datasets of peer ratings on director status and conformity of non-executive directors from Dutch organizations, indicate that industry-specific expertise and financial expertise differently impact directors' social status and influence within the board. We find that directors' individual performance orientation – the motivation to demonstrate expertise – acts as an important contingency for expertise to increase directors' status within the board. Additional analyses using archival data and interviews with non-executive directors substantiate our findings and provide additional insight into the dynamics operating within boards. This study extends existing research on boards of directors and provides unique micro-level insights into the boardroom dynamics that connect director expertise to director status and conformity within boards.

Keywords: conformity, expertise, individual performance orientation, non-executive directors, social status

INTRODUCTION

Residing at the apex of the organization, boards of directors are high profile decision-making groups that determine strategic objectives for the organization, hire, fire and monitor senior management, determine executive remuneration, and provide senior management with strategic advice (Hillman and Dalziel, 2003; Pearce and Zahra, 1992; Westphal, 1999).^[1] In order to successfully carry out these complex tasks, boards require a high degree of knowledge and expertise (Forbes and Milliken, 1999; Hillman and Dalziel, 2003). Indeed, the growing literature on board capital acknowledges that human

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capital – which includes expertise – is a crucial ingredient for understanding board effectiveness (Carpenter and Westphal, 2001; Hillman and Dalziel, 2003; Khanna et al., 2014; McDonald et al., 2008). Nevertheless, while governance researchers have shown that boards vary greatly in their board capital (Takacs Haynes and Hillman, 2010) and despite the obvious advantage of having expert directors on the board, the empirical evidence on the relationship between board expertise and effectiveness has been far from conclusive (Johnson et al., 1996, 2013). Governance scholars have argued that to better understand board effectiveness, researchers must pay attention to the nature of interactions and decision-making within the boardroom (Carter and Lorsch, 2004; Finkelstein and Mooney, 2003; McNulty and Pettigrew, 1999; Pettigrew, 1992). To unpack the determinants of board effectiveness, a relevant finding is that board interactions and decisions will be influenced mostly by directors with the highest social status within the board (Finkelstein, 1992; He and Huang, 2011; Mace, 1986). Furthermore, while research on utilizing expertise in groups suggests that groups make higher quality (i.e., more effective) decisions when expert members are accorded higher levels of status (Barton and Bunderson, 2014; Bunderson, 2003; Littlepage and Mueller, 1997) and while board scholars argue that boards will be more effective when having directors with the ‘right’ kinds of knowledge and expertise in the board (Carpenter and Westphal, 2001; Forbes and Milliken, 1999; Hillman and Dalziel, 2003; McDonald et al., 2008), to date, little is known about how and under what conditions director expertise impacts directors’ social status and influence within boards (see Johnson et al., 2013).

Combining research on board effectiveness with the extant literature on board interactions, we argue that to truly understand how director expertise impacts the effectiveness of board decision making, it is first necessary to focus on the more proximal, but crucial, question of who has the most and who has the least say within the board. To date, this has remained an open question (Hambrick et al., 2008). In a similar vein, Lorsch and MacIver (1989, p. 88) already posed the seminal question ‘(w)hat happens in these boardrooms that make a society’s corporate leaders be as unwilling as an unprepared child in a classroom quiz to raise their hands during board meetings?’ Therefore, the central research question of this paper is how and when director expertise leads to higher status and ultimately conformity from other directors; an important form of social influence within groups that occurs when individuals publicly conform with a viewpoint, but do not necessarily agree (Cialdini and Goldstein, 2004; Yukl et al., 2005). Building on two unique multi-source datasets in which directors provide ratings on their expertise, but also provide ratings on each other’s social status and their level of conformity within the board, we provide a micro-level analysis on the relationships between director expertise, status and conformity within boards.

By disentangling the micro-level relationships that connect expertise, status and conformity within boards, our study contributes in several ways to the nascent literature on director human capital, on the one hand, and to the board and corporate governance literature that seeks to understand how director expertise impacts boardroom dynamics on the other. First, in addition to previous research that has linked director human capital with board level outcomes (e.g., Khanna et al., 2014; McDonald et al., 2008; Oehmichen et al., 2016), our study extends this body of research by arguing that expertise utilization and influence within boards is inherently a status organizing process. Our

study thereby contributes to the literature that goes beyond the logic of board incentives and ability and seeks to identify important barriers for effective board functioning (Boivie et al., 2016) and acknowledges that director behaviours take place within a context of social structural relationships operating within boards (see Westphal and Zajac, 2013). Drawing from the rich literature on status characteristics theory we posit that it is not necessarily directors' expertise that drives influence within the board, but rather how competent directors appear in the eyes of other directors within the board (see Berger et al., 1972, 1980). Because expertise itself is intra-personal and cannot be directly observed by fellow group members (Bunderson, 2003; Bunderson and Barton, 2011), directors must rely on indirect cues to draw inferences about one another's ability to contribute to the board (see Berger et al., 1972, 1980; Bunderson and Barton, 2011). Then, ultimately, patterns of within-board influence and deference are a function of directors' social status within the board. An expert director that is not attributed social status within the board is unlikely to be influential. Directly linking director human capital to board level outcomes may therefore potentially result in erroneous conclusions.

Second, because director expertise is intra-personal and not directly observable by fellow directors, we argue that the more intensely directors demonstrate their expertise, the more apparent their expertise becomes to their fellow directors. Drawing from goal orientation research and in line with the truism that performance is a function of motivation and ability (Bell and Kozlowski, 2002; Campbell et al., 1993), we therefore argue that directors' individual performance orientation acts as a crucial individual level moderator for the relationship between director expertise and social status within the board.^[2] Specifically, performance orientation reflects an individual's disposition to demonstrate one's competence to others and the desire to be positively evaluated by others (Elliot and Dweck, 1988; Payne et al., 2007; VandeWalle, 1997). Since directors with a strong performance orientation have the desire to demonstrate their competence and are more likely to signal their expertise towards fellow directors, we expect that these directors have more social status within the board because their expertise is more apparent to their fellow directors. Accordingly, we believe that a social psychological perspective on director expertise within boards that integrates insights from goal orientation research with status characteristics theory may provide a unique insight into the relationship between expertise, status and ultimately conformity within boards.

Third, while board scholars suggest that directors will benefit from having the 'right' kinds of knowledge and expertise, it is not exactly clear what these 'right' expertise domains are (Carpenter and Westphal, 2001; Hillman and Dalziel, 2003; McDonald et al., 2008). Acknowledged, it is difficult to specify relevant director expertise domains in any general way. However, domains such as financial expertise may be thought of as universally important for directors, while other expertise domains such as industry-specific expertise may be thought of as depending more on the specific context (Hambrick et al., 2015). Nevertheless, both financial expertise and industry-specific expertise are generally considered as important elements of human capital that directors can bring to the board (Forbes and Milliken, 1999; Kor, 2003; Kor and Sundaramurthy, 2009; McDonald et al., 2008; Pozen, 2010; Stiles and Taylor, 2001; Takacs Haynes and Hillman, 2010). Indeed, a recent survey among directors shows that in addition to financial expertise, industry-specific expertise is considered highly relevant for director

functioning. Specifically, 85 per cent of participating directors indicated that it was ‘very important’ or ‘somewhat important’ to add directors with industry-specific expertise to their boards (PricewaterhouseCoopers, 2012). Nevertheless, theory development regarding how these different types of expertise affect director functioning within boards is underdeveloped and the implications of different types of expertise for director functioning are generally equated (Johnson et al., 2013; Kor and Sundaramurthy, 2009, for a notable exception see Almandoz and Tilcsik, 2016). In this paper, we explore how financial and industry-specific expertise impact director status and conformity within boards.

THEORY AND HYPOTHESIS DEVELOPMENT

A Status Characteristics Framework

According to the status characteristics theory (SCT), interactions and influence within groups are driven by status ascriptions – the prominence and respect in the eyes of others (Anderson et al., 2006) – that individuals hold for one another (Bunderson and Barton, 2011). Individuals that are ascribed higher status are deferred to by others. As a result, intra-group status differences strongly shape patterns of intra-group participation and deference, bestowing high-status members with the right to influence decisions while refusing this right to others (for an overview see Magee and Galinsky, 2008).

A crucial element of SCT is that ascription of status within workgroups is based on the expectations of each member’s ability to contribute to the group. Especially task-relevant expertise can be regarded as a prominent status cue for group members to accord status to their fellow group members (see also Berger et al., 1998; Groysberg et al., 2011). Formally, expertise can be defined as the skills and knowledge an individual has within a particular field (Germain and Tejeda, 2012). However, it is important to acknowledge that while expertise itself is regarded as important for decision making quality, expertise is also intra-personal and cannot be directly observed by others (Bunderson, 2003). As a result, individuals must rely on indirect cues to draw inferences about one another’s expertise (Bunderson and Barton, 2011).

Indeed, SCT specifically acknowledges that those specific status cues that provide information about an individual’s level of expertise are likely to be tacit and not directly visible to other group members (Berger et al., 1972, 1977). Thus, while SCT interprets directors’ task-relevant expertise as an important determinant of performance expectations within boards and thus for status ascription, because expertise is a latent characteristic – not directly visible to others – it may be difficult for directors to accurately assess fellow directors’ ability to contribute to board decision-making. As a result, the director with highest expertise may not necessarily have the highest status and, accordingly, may not be the most influential. Thus, directors with expertise in relevant domains, who are not ascribed status for that expertise, are unlikely to be influential within boards.

Building on SCT we expect that director expertise acts as an important status cue. However, we also acknowledge that director expertise may not necessarily result in higher status within boards, because expertise is tacit and not directly observable by fellow directors. In the remainder of this theory development section, we discuss two types of director expertise that are considered important elements of director human capital,

namely financial expertise and industry-specific expertise and we discuss how directors' individual performance orientation moderates the relationships between expertise and social status.

Financial Expertise and Status: The Moderating Role of Director Performance Orientation

Financial expertise is recognized by board scholars as an important capability for directors (Davis, 2009; Johnson et al., 2013; Kaczmarek et al., 2012). For a large part, the monitoring activities of directors hinge on their understanding of financial matters and requires knowledge of accounting and internal controls standards and concepts (DeFond et al., 2005; Dhaliwal et al., 2010). Stiles and Taylor (2001, p. 67) note that '(i)t was certainly the case in interviews with non-executive directors that the chief source of information on which they based their judgments was financial data'.^[3] In this vein, McDaniel et al. (2002) argue that financial expertise is crucial for understanding the financial reports provided by senior management, because financial experts possess better-developed schemas or frameworks to assess financial reports. In addition, research demonstrates that boards with financial expertise are more likely to provide effective oversight and that firms that have directors with financial expertise have a lower probability of financial restatements (Agrawal and Chadha, 2005; DeFond et al., 2005; Dhaliwal et al., 2010).

Regulators have also explicitly emphasized the need for financial experts on the board. The Sarbanes-Oxley Act (SOX), for instance, requires each US-listed public company to disclose the financial experts within its board of directors' audit committee. In many other countries, corporate governance codes emphasize the importance of having directors with financial expertise on the board (e.g., the United Kingdom, Germany, and the Netherlands). The motivation for these provisions is the belief that financial expertise is critical for directors as it enables directors to assess strategic decisions and monitor organizational performance and therefore leads to better oversight. While the exact range of strategic issues discussed within boards can differ widely across different boards and is therefore difficult to specify in an all-encompassing way, financial expertise is thought of as universally important for board work (Hambrick et al., 2015; see also Jensen, 1993). Given the central role of financial expertise in achieving effective oversight, financial experts likely will be ascribed higher levels of status within the board.

However, as alluded to, because directors' expertise is intra-personal and therefore not directly visible to fellow directors, fellow directors have to rely on inferences about each other's competence based on behavioural cues (see Bunderson, 2003; Littlepage and Mueller, 1997; Littlepage et al., 1997). As a result, directors need to actually demonstrate their expertise and signal competence to be ascribed status for their expertise (see also Anderson and Kilduff, 2009). Also, in the context of our study, given that directors spend relatively little time together, meet episodically, perform complex tasks that are entirely cognitive in nature (Forbes and Milliken, 1999), gauging one another's expertise for the task at hand may prove to be difficult. Then according to the literature on goal orientation, individual differences in goal orientations may prove directly

relevant to evaluations of competence (Bell and Kozlowski, 2002; Campbell et al., 1993; Elliot and Dweck, 1988; VandeWalle, 1997).

Research on goal orientations conceptualizes goal orientations as motivational dispositions towards the adoption of behavioural goals in an achievement situation (Elliot and Dweck, 1988; VandeWalle, 1997). Specifically, individual performance orientation is seen as an identifiable personality characteristic that reflects an individual's motivational disposition to demonstrate superior competence in comparison to others (Bell and Kozlowski, 2002; Brett and VandeWalle, 1999; Janssen and Van Yperen, 2004). That is, individuals high on performance orientation have a strong desire to demonstrate their competence toward others and exert greater effort to acquire recognition (Dweck and Leggett, 1988). Then because performance oriented directors have a focus on demonstrating their expertise and are likely to exert greater effort to demonstrate their expertise, their expertise is more easily visible to fellow directors within the board and they are more likely to be ascribed status for their expertise. We therefore hypothesize that directors' individual performance orientation moderates the relationship between financial expertise and status within the board.

Hypothesis 1a: Individual performance orientation will positively moderate the relationship between financial expertise and status within the board.

Industry-Specific Expertise and Status: The Moderating Role of Director Performance Orientation

A second critical category of director human capital is industry-specific expertise (e.g., Carpenter and Westphal, 2001; Kor and Misangyi, 2008; Kor and Sundaramurthy, 2009). Industry-specific expertise involves strategic knowledge of the opportunities, threats, competitive conditions, and regulations specific to an industry (Kor, 2003; Kor and Sundaramurthy, 2009). Next to financial expertise, recent surveys by Deloitte and the Society of Corporate Secretaries and Governance Professionals (2012, 2014) indicate that industry-specific expertise is considered a desired skill likely to contribute to the success of a board.

Industry-specific expertise is important for directors as it allows them to tap from their first-hand experience with the industry's opportunities, threats, regulations, and conditions so as to develop a deeper and more nuanced understanding of the context in which the firm operates (Almandoz and Tilcsik, 2016; Faleye et al., 2014; Rajagopalan and Datfa, 1996; Tian et al., 2011). This is even more important as several scholars note that directors frequently lack sufficient industry-specific expertise, which limits their ability to critically assess problems facing the organization (McNulty and Pettigrew, 1999; Pozen, 2010; Stiles and Taylor, 2001). For instance, one director in Lorsch and MacIver's (1989, p. 85) study, speaking about directors' work, states that 'it's a difficult task, because outside directors often have no intimate knowledge of the specific business that will be discussed during the meeting'. Directors with industry-specific expertise may therefore be in a superior position to understand organizational issues, to advise on and assess strategic plans, and to evaluate information and explanations provided by senior

management (Kor and Sundaramurthy, 2009; Kroll et al., 2008; see also Takacs Haynes and Hillman, 2010). Therefore, it is likely that industry-specific expertise is positively related to status within the board. However, for similar reasons alluded to in our reasoning leading to hypothesis 1a, we expect that performance oriented directors are more likely to be ascribed status for their industry-specific expertise.

Hypothesis 1b: Individual performance orientation will positively moderate the relationship between industry-specific expertise and status within the board.

Status and Conformity

Research on SCT finds that status differences within groups shape the actions of group members in patterned ways (Berger et al., 1977). Higher-status members exercise influence over the opinions of others within the group, because they are granted more opportunities to contribute and their contributions are more positively evaluated (Berger et al., 1977, 1980, 2002; Simpson et al., 2012).

In general terms, social influence can be defined as a socially induced modification of an opinion or decision (Simpson et al., 2012). The classic work on social influence shows that people have a tendency to agree with a dominant party (Asch, 1951) and that individuals are especially influenced by a higher status individual even when the subject's own inclinations are clearly different (Milgram, 1965). While various types of social influence may occur within groups, we are interested in a type of social influence referred to as conformity, consistent with Kelman's (1958) notion of compliance (see also Kelman, 1956),^[4] it occurs when individuals publicly conform with a viewpoint, but do not necessarily agree (see also Yukl et al., 2005).

Regardless the source of status differences within groups, the end result is that status shapes who conforms and who is conformed to within groups (Simpson et al., 2012). The social norm within groups prescribes that low-status individuals should conform to higher status individuals (Berger et al., 2002; Keltner et al., 2003) and deviant behaviours of low-status group members are likely to be sanctioned (for a review see Magee and Galinsky, 2008). Then, like the members of other groups, directors on a board are likely to sort into a status hierarchy that ultimately determines who is influential within the board and who is not (see He and Huang, 2011; see also Magee and Galinsky, 2008). Indeed, when it comes to conformity, Park et al. (2011) demonstrate that these processes also operate at the upper echelon of organizations. We anticipate that status differences between directors are likely to be influential in structuring conformity among directors. We expect that the higher a director's status within the board, the more likely fellow directors will conform to this director.

Hypothesis 2: A director's status within the board will be positively related to conformity towards that director.

Overall, the previous hypotheses specify a model in which directors' expertise elicits conformity from other directors if director expertise leads to higher status within the board.

In other words, shared expectations about a director's status within the board mediate the relationship between expertise and conformity if directors' intra-personal expertise is visible to fellow directors. Together with the expected moderating role of individual performance orientation, this suggests a pattern of moderated mediation, in which the indirect effect of directors' expertise on conformity through status within the board is contingent on a director's individual performance orientation.

Hypothesis 3a: Individual performance orientation will moderate the indirect effect of financial expertise (through status) on conformity with that director.

Hypothesis 3b: Individual performance orientation will moderate the indirect effect of industry-specific expertise (through status) on conformity with that director.

As noted, low-status members are reluctant to express their views if those views differ from the views held by high-status members because they are likely to be sanctioned (Magee and Galinsky, 2008). Thus, while high status directors are inclined to voice their opinions, lower status directors will be more likely to conform to these high status persons and keep their opinion to themselves (Berger et al., 1980). In our previous reasoning we have argued that the higher a director's status within the board, the more likely fellow directors will conform to this director. Extending our line of reasoning to the inter-personal level, we expect that the relationship between a focal director's status and a fellow director's conformity with that focal director is more pronounced if a fellow director has low status within the board. Or conversely, a fellow director is less likely to conform to a high status director, if that fellow director also has high status within the board.

Hypothesis 4: At the inter-personal level, a fellow director's status within the board will weaken the relationship between a focal director's status and that fellow director's conformity with the focal director.

An overview of our conceptual model is presented in Figure 1.

STUDY 1

Sample

Study 1, in which we focus on the determinants of status within boards, relies on data gathered from boards of Dutch housing corporations. Dutch organizations generally have a two-tier structure in which the management board (which includes the CEO) is formally separated from the supervisory board (comprising outside directors). The tasks of the members of a supervisory board are very similar to the tasks of outside directors within a one-tier structure. For matters of parsimony, we refer to the supervisory board members as directors. The main tasks of Dutch housing corporations are to build, rent, and maintain affordable housing. The first housing corporations were established around 1850 to provide housing to underprivileged segments of the Dutch population. The current Dutch housing policy is still based on the idea that affordable housing

Figure 1. Conceptual Model

should be universally accessible and includes housing at prime locations to prevent social segregation. The majority of low-rent houses in the Netherlands are owned by housing corporations. Housing corporations have been autonomous and financially independent enterprises since 1995, when the Dutch government decided to privatize all housing corporations. As financially independent organizations, housing corporations have to make a return on their investments to ensure their survival. When we collected our data, there were 430 housing corporations in the Netherlands with 2.4 million houses and a total capital of 32.6 billion euros (42.3 billion USD).^[5]

Procedure

One of the most challenging aspects of research on boards of directors is securing access to boards. To increase the likelihood of gaining access to boards of housing corporations, we followed several steps recommended by Leblanc and Schwartz (2007) and Westphal and Stern (2007). First, we obtained endorsement from the Dutch Association of Directors of Housing Corporations (Vereniging van Toezichthouders in Woningcorporaties, or VTW). The VTW sent out letters to the 100 largest housing corporations in the Netherlands and to the chairpersons of the supervisory boards of these corporations. The letter informed the chairpersons that we would contact them to discuss the overall purpose of the research project. To foster commitment from the chairpersons, we organized face-to-face meetings with them to explain the purpose of our research and to assure absolute confidentiality. Thirty-two chairpersons indicated that they were willing to schedule an appointment with us. Thirty chairpersons agreed to participate in this research project. We asked these chairpersons to endorse our research for the other directors on the board. Within a few days after each face-to-face meeting, we sent access

codes to all directors on the board; these access codes could be used to log in to a secured website through which outside directors could rate their fellow directors and answer questions about themselves.

Second, we followed additional procedures that have been shown to enhance response rates. We pretested the online questionnaire on two boards of directors that were not included in this study. Moreover, we sent two further rounds of personal reminders to the non-respondents, in addition to obtaining endorsement from the chairpersons. Of the 181 directors from the thirty participating boards that received a personal access code for the website, 154 directors (85 per cent) completed the questionnaire. The average age was 58 years ($SD = 7.9$ years), and 27 per cent were female. Participation was voluntary, and the directors were assured that their responses would be confidential and used for research purposes only.

Measures

Status. Status was measured using three items from Anderson et al. (2006) for which directors rate one another on a 7-point scale ranging from (1) very little to (7) a very great deal. The items were ‘this person demonstrates high ability’, ‘this person makes valuable contributions’, and ‘this person receives respect’. For these items, ‘this person’ was replaced by the name of the focal director. The Cronbach’s alpha was .92. Such a measure in which each director rates each other director is called a round robin design (Kenny et al., 2006). Because we used a peer ratings approach for director status in which fellow directors rated each other’s status, it was important to evaluate whether the responses from fellow directors regarding a focal director’s status converged. To investigate convergence, we calculated James et al.’s (1984, 1993) average inter-agreement coefficient for multi-item indices ($r_{wg(j)}$). Compared with a uniform distribution, the median $r_{wg(j)}$ value for status was .95 (mean = .92). In addition, compared with a heavily skewed distribution (see LeBreton and Senter, 2008), the median $r_{wg(j)}$ reads .84 (mean = .76), which can be considered to be adequate.

We would also expect the variation between the ratings of status for a focal director to be more similar to one another than the status ratings for other directors (Bliese, 2000). This expectation was investigated by calculating the intraclass correlation coefficients (ICC[1] and ICC[2]; Bliese, 2000). A one-way analysis of variance suggested that the ratings differed significantly between the different focal directors. The ICC(1) for status was .37 ($p < .001$). The reliability of the aggregated means for the individual director level was investigated by calculating the ICC(2) coefficient. The ICC(2) coefficient was .81. These numbers indicate that there was sufficient agreement to justify aggregation from the dyadic to the individual level.

Expertise. Expertise is formally defined as the skills and knowledge an individual has within a particular field (Germain and Tejeda, 2012). Because expertise is first and foremost intra-personal, we had strong conceptual reasons to ask directors to rate their own level of expertise. While self-report measures may be prone to biases (e.g., directors overestimating their own expertise) and the reliability of self-ratings will generally be lower than the reliability of archival measures on director work experience^[6], we

maintain that if the reliability of self-reported expertise has an acceptable level it is preferable to use a more proximal self-rated measure of expertise (see Johnson et al., 2013; see also Lawrence, 1997; Priem et al., 1999, for a discussion on the distal nature and construct validity of archival measures).

Directors rated their financial expertise regarding 'financial matters', 'internal control and administration'. For industry-specific expertise directors rated their level of expertise regarding 'care and well-being expertise', 'safety and habitability expertise', and 'residential expertise'. Within the context of housing corporations, the industry-specific items reflect that the general objective of housing corporations in the Netherlands is to ensure that households have access to adequate and affordable housing and that housing corporations should contribute to the quality of life in neighbourhoods. All expertise items were rated on a seven-point scale ranging from (1) very low to (7) very high. The Cronbach's alpha is .79 for financial expertise and .73 for industry-specific expertise.

Performance goal orientation. We measured directors' individual performance orientation using the performance approach measure of Janssen and Prins (2007), based on the method of Elliot and McGregor (2001). Items were preceded by 'in performing my work it is important for me that. . . ' and the items were 'I achieve at higher levels than others', 'I perform better than others', 'I am more competent compared to others', 'I receive better performance appraisals than others', and 'I am the best'. These items were scored on a seven-point scale, ranging from (1) not applicable to (7) highly applicable. Cronbach's alpha for the performance orientation scale was .93.

Control variables. We controlled for board size in all analyses. We also controlled for directors' number of other directorships as a measure of directors' status outside the board, because this variable can serve as a proxy for the respect and recognition each director receives from the corporate community (D'Aveni, 1990; Mace, 1986). We gathered information on multiple directorships from the annual reports of the participating organizations. We log transformed the raw number of appointments to take into account the diminishing marginal effect of each additional directorship in reflecting status and deference (cf. He and Huang, 2011). Data on director gender and education were taken from annual reports, company websites and other public sources of information. We recorded directors' highest education level (1: high school, 2: vocational education, 3: undergraduate degree, 4: master degree, 5: doctoral degree).

Analyses

The Hausman specification test showed no significant differences between a fixed effects or a random effects model in which observations were clustered at the board level. We therefore performed a random effect, generalized least square (GLS) regression employing the Huber/White sandwich estimates for variance, which is robust for clustering and heteroscedasticity (White, 1980; Williams, 2000). Following the recommendations of Aiken and West (1991), we standardized the variables involved before computing the interaction terms.

Table I. Means, standard deviations, and correlations study 1

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
1 Board size	6.20	1.28							
2 Number of appointments	4.16	2.07	-.12						
3 Female dummy	0.27	0.44	-.03	-.03					
4 Education level	3.38	0.77	.03	.19*	-.07				
5 Financial expertise	4.90	1.17	-.15	.13	-.28**	.12			
6 Industry-specific expertise	4.84	0.95	.06	.00	.14	-.13	-.18*		
7 Individual performance orientation	3.77	1.16	-.09	-.07	-.14	.05	.28**	-.08	
8 Social status	5.45	0.53	-.31**	.21*	-.10	.17*	.36**	-.10	.26**

n = 154 non-executive directors, number of boards = 30.

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

Results

Table I provides summary statistics and correlations for all variables. The regression results are reported in Table II. Model 1 in Table II includes the control variables board size, the number of appointments, female dummy and education level and reports that

Table II. Random effects generalized least square regression for social status study 1

<i>Variables</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
	β	β	β
Board size	-.30** (.10)	-.25** (.09)	-.25** (.08)
Number of appointments (log)	.20* (.09)	.18* (.08)	.19* (.09)
Female dummy	-.10 (.06)	-.01 (.06)	-.01 (.07)
Education level	.13 (.09)	.09 (.09)	.09 (.08)
Financial expertise		.22** (.08)	.23** (.08)
Industry-specific expertise		-.04 (.08)	-.04 (.08)
Individual performance orientation		.16** (.06)	.16** (.06)
Financial expertise x individual performance orientation			.13* (.06)
Industry-specific expertise x individual performance orientation			.06 (.08)
Wald χ^2	29.12**	84.77**	113.59**

n = 154 non-executive directors, number of boards = 30. Standardized regression coefficients reported.

†p < .10, *p < .05, **p < .01; t-tests are one-tailed for hypothesized effects, two-tailed for controls.

Robust standard errors are in parentheses.

Figure 2. Interaction for Financial Expertise and Individual Performance Orientation (Study 1)

directors in larger boards are ascribed lower status by their fellow directors and that a director's number of appointment increases a director's status within the board. Model 2 includes the main effects of the variables included in our conceptual reasoning.

Hypothesis 1a predicts that individual performance orientation moderates the relationship between financial expertise and status. Similarly, Hypothesis 1b predicts that individual performance orientation moderates the relationship between industry-specific expertise and status. To test these hypotheses Model 3 in Table II includes the interaction terms for financial expertise and industry-specific expertise respectively. The positive and significant coefficient ($\beta = .13$, $p < .05$) for financial expertise provides support for Hypothesis 1a, while the insignificant coefficient ($\beta = .06$, ns) for industry-specific expertise fails to support Hypothesis 1b. To aid interpretation we plotted the significant interaction effect for financial expertise in Figure 2. The pattern depicted in Figure 2 is consistent with Hypothesis 1a. Taken together, the results of Study 1 suggest that financial expertise increases status within boards and that directors' individual performance orientation strengthens this relationship. Surprisingly, industry-specific expertise does not lead to higher status within boards nor is this relationship strengthened by individual performance orientation.

STUDY 2

In Study 1, we investigated the determinants of status within boards in a relatively homogeneous sample. In Study 2, our aim is, first, to replicate the findings from Study 1 in a more heterogeneous sample and, second, to show how status within boards impacts conformity between directors, so testing all our hypotheses.

Sample and Procedure

To garner cooperation of all directors within a particular board, we conducted intake interviews with chairpersons and explained the overall setup of the research project. In return for full cooperation from every director within a particular board in assessing each other's status and provide inter-personal conformity ratings, we agreed to facilitate

a plenary board evaluation meeting in which we provided the board and the individual directors with feedback on their functioning. This process resulted in an agreement with ten organizations in which all 63 directors indicated that they were willing to participate and rate one another. The first author held face-to-face meetings with all directors of these ten organizations at a location most convenient for these directors. During our initial contacts with the chairpersons, several chairpersons noted that directors might be hesitant to interpersonally evaluate one another and advised us to keep the survey as short as possible to ensure cooperation from individual directors in rating their fellow directors.

The participating organizations are more heterogeneous in comparison to the first study and range from consultancy firms, large hospitals, manufacturing firms, and financial institutions. Out of the 63 directors from the ten participating boards, three directors indicated that they were unable to accurately assess their fellow directors because they had been recently appointed to the board. In addition, their fellow directors indicated that they were unable to adequately assess these newly appointed directors. Moreover, two directors were unwilling to provide conformity ratings on their fellow directors, and one director was unwilling to answer any questions related to himself (including his conformity with other directors). We therefore excluded these six directors from our sample. The number of directors that ultimately provided peer ratings ranged from four to eight for the ten participating boards, yielding a total of 57 directors providing 284 interpersonal ratings on one another.

Measures

Conformity. The literature on status differences and social influence shows that the threat of social sanctions is likely to keep individuals from voicing dissent, even when one feels that others' positions are incorrect (Galinsky et al., 2008). Individuals conform and keep their true opinion to themselves, to avoid being ostracized (Cialdini and Goldstein, 2004). We therefore asked directors to provide self-ratings on their level of conformity with fellow directors, because conformity can only be accurately assessed by fellow directors if they know what the initial opinion of the focal director was. We used a single item measure on a scale ranging from (1) minimally to (7) very much that was based on Yukl et al. (2005): 'To what extent do influence attempts by this person result in your compliance even while not being enthusiastic about these attempts initially?' (see also Falbe and Yukl, 1992; Yukl et al., 1996). 'This person' was replaced with the name of the focal director, and the directors rated their conformity with each director. We used a single round-robin item to measure conformity (see de Jong et al., 2007). This approach is consistent with social network research in employing one-item measures (Umphress et al., 2003; Venkataramani et al., 2010; Zagenczyk et al., 2010). Researchers have demonstrated that single item measures can be appropriate when the construct being measured is unambiguous to the respondents (Sackett and Larson, 1990) and that specifically for the case of round-robin ratings, providing respondents with a roster of individuals, can aid to yield reliable measures (Gupta et al., 2016; Marsden, 1990).

Status. Status was again measured with three items from Anderson et al. (2006) on a 7-point scale ranging from (1) very little to (7) a very great deal (see Study 1). The Cronbach's alpha was .86.

Expertise. Directors rated their financial expertise regarding 'financial matters' and 'internal control and administration'. Because this study encompasses organizations from several industries we kept the industry items applicable to multiple industries. We asked directors to rate their expertise in terms of the 'sector of the organization'. To keep our industry-specific measure sufficiently generic to be applicable across different industries and because every organization is situated within a particular industry, we also asked directors to rate their expertise regarding the 'operations of the organization'. All expertise items were rated on a seven-point scale ranging from (1) very low to (7) very high. The Cronbach's alpha's were .89 for financial expertise and .65 for industry-specific expertise.

Performance goal orientation. We measured directors' individual performance orientation using three items from the performance approach measure of Janssen and Prins (2007), based on the method of Elliot and McGregor (2001). We selected the items with the highest factor loadings to measure individual performance orientation. These items were preceded by 'in performing my work it is important for me that. . . ' and the items were 'I perform better than others', 'I am more competent compared to others' and 'I receive better performance appraisals than others'. These items were scored on a seven-point scale, ranging from (1) not applicable to (7) highly applicable. The Cronbach's alpha for the performance orientation scale was .89.

Control variables. Because we employ SOREMO (Kenny, 1995) it is not necessary to include board or firm level controls (see the 'Analysis' subsection for further details). We included several director level controls. We gathered information on multiple directorships from the annual reports of the participating organizations. Consistent with the first study, we log transformed the raw number of appointments. Similar to the first study, data on director gender and education level were taken from annual reports, company websites and other public sources of information and were included as controls.

Analyses

For this study we employed the SOREMO software program to implement the Social Relations Model (Kenny, 1995; SRM, Kenny et al., 2006). An important feature of SOREMO is that it can simultaneously address how much of the total variance in dyadic ratings (e.g., round robin ratings) is due to individual-level target and perceiver effects, as well as how much of the variance is due to a specific dyad. The benefit of SOREMO is that it not only accounts for nesting within boards, but also acknowledges that each director is both a perceiver and a target. SOREMO accurately accounts for the four different sources of variance present in a round-robin design setup and cleanly partitions variance into the components of group, perceiver, target and dyad (Kenny et al., 2006, p. 187).^[7]

The *group effect* reflects the average of the outcome score for the board. At the board level, directors within a particular board may have scored high on conformity relative to other boards. Directors within one board may influence one another more than the directors from another board, for instance. At the individual level, a director's tendency to rate others in a particular way is called the *perceiver effect*. For instance, Bill may have the tendency to conform more in general. Also at the individual level, the *target effect* reflects the degree to which certain directors tend to elicit similar ratings from other directors. Other directors may, for instance, be more likely to conform to Ann than Bill. The *dyad effect* reflects the unique combination of two directors after removing group effects, perceiver effects, and target effects. For instance, Bill may conform more with Ann than the overall tendency within the board to conform with Ann (group effect), Bill's own tendency to conform to other directors (perceiver effect), and Ann's tendency to elicit conformity from other directors (target effect).

Important for this study is that the *target scores* for each director on each peer-rated dimension is independent of board membership, because SOREMO removes board differences (see also Anderson and Kilduff, 2009), while the *dyad scores* are independent from the perceiver and the target effects, as well as independent from board membership (see Kenny et al., 2006 for further details). The specific model used to estimate the target score (b_{ik}) of person i within group k is depicted in the equation below (see also Kenny et al., 2006, p. 197):

$$b_{ik} = \frac{(n-1)^2}{n(n-2)} M_{.ik} + \frac{n-1}{n(n-2)} M_{i.k} - \frac{n-1}{n-2} M_{.k}$$

where n is the group size of group k , $M_{.ik}$ the mean of partner scores for partner i , $M_{i.k}$ the mean of perceiver scores for person i , and $M_{.k}$ the mean of all observations for group k . Furthermore, by rewriting the full SRM equation $X_{ijk} = m_k + a_{ik} + b_{jk} + g_{ijk}$ for actor i with partner j in group k , where X_{ijk} is the score for person i rating person j , m_k is the group mean, a_{ik} is person i 's perceiver effect, b_{jk} is person j 's target effect, and g_{ijk} is the dyad effect, the dyad effect g_{ijk} can be written as $g_{ijk} = X_{ijk} - a_{ik} - b_{jk} - M_{.k}$.

Finally, to formally test the significance of the hypothesized conditional indirect effects we utilized the macro for bootstrapping, designed by Hayes (2013), which facilitates bootstrapping methods that are more powerful than stepwise procedures and generate the recommended bias-corrected confidence intervals. By applying bootstrap procedures, it is possible to assess the significance of the indirect effect while avoiding power problems from non-normal sampling distributions of the indirect effect (Edwards and Lambert, 2007).

Results

The means, standard deviations, and correlations between the study variables are presented in Table III. Consistent with the results from Study 1, we can see that financial expertise is again positively related to status, while industry-specific expertise is not. There also is a positive relationship between status and conformity with the focal director. The squared correlation coefficient between status and conformity indicates that there is a shared variance of 38% between status and conformity, indicating that

Table III. Means, standard deviations, and correlations study 2

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1 Number of appointments	4.89	4.07							
2 Female dummy	0.23	0.42	-.05						
3 Education level	3.98	0.83	.28*	.21					
4 Financial expertise	4.81	1.18	.15	-.27*	-.03				
5 Industry-specific expertise	4.80	1.03	-.07	.23 [†]	.16	-.25 [†]			
6 Individual performance orientation	3.54	1.26	.00	-.14	-.09	.16	.23 [†]		
7 Social status (a)	0.00	0.54	.24 [†]	-.03	.15	.42**	-.12	.20	
8 Conformity with focal director (a)	0.00	0.44	.21	-.01	-.12	.24	-.09	.19	.62**

(a) individual level variable, board level variance is partialled out.

n = 57 non-executive directors.

[†]p < .10, *p < .05, **p < .01.

although status and conformity are related, they are not equivalent. Because SOREMO partials out group level and individual level variance (i.e. partialing out perceiver and target effects, thereby also mean-centring status and conformity), dyadic level conformity with a focal director is independent from individual level variables and therefore not related to any of the individual-level variables, we therefore did not include dyadic level conformity in Table III. The results of the regression analyses for status and conformity are reported in Table IV.

Antecedents of status. Similar to Study 1, model 1-3 in Table IV focus on the antecedents of status within the board. Hypothesis 1a and 1b predict that individual performance orientation positively moderates the relationship between expertise and status. Regarding financial expertise the coefficient for the interaction term in Model 3 is positive and significant ($\beta = .25, p < .05$), providing support for Hypothesis 1a. Model 3 shows, however, that the coefficient for the interaction term for industry-specific expertise is negative and marginally significant ($\beta = -.18, p < .10$), this contrasts Hypothesis 1b. To aid interpretation, we plotted the statistically significant interaction for financial expertise in Figure 3A, as well as the marginally significant interaction for industry-specific expertise in Figure 3B. The pattern depicted in Figure 3A is consistent with Hypothesis 1a.

Status and conformity. Model 4-6 of Table IV focus on the consequences of status on conformity. Hypothesis 2 predicts that status will be positively related to conformity from other directors. Model 6 ($\beta = .56, p < .01$) in which we included status as the mediating variable linking the interactive effects of expertise and individual performance orientation with conformity, show that status is significantly and positively related to conformity. These results provide support for Hypothesis 2. Hypotheses 3a and 3b predict that individual performance orientation will moderate the indirect effect of expertise through status. In support of Hypothesis 3a, the interaction term for financial expertise in Model 5 is significant and positive ($\beta = .24, p < .05$) and becomes insignificant when we add status in Model 6 ($\beta = .10, ns$). The interaction term for industry-specific expertise in Model 5 is marginally significant and negative ($\beta = -.23, p < .10$) and becomes insignificant when

Table IV. Regression analyses for social status and conformity study 2

Variables	Social status			Conformity		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	β	β	β	β	β	β
Number of appointments (log)	.32** (.13)	.23 [†] (.12)	.25* (.12)	.25 [†] (.14)	.27* (.13)	.13 (.12)
Female dummy	-.01 (.13)	.12 (.13)	.17 (.12)	.14 (.14)	.19 (.13)	.10 (.12)
Education level	.08 (.14)	.11 (.13)	.06 (.13)	-.17 (.14)	-.22 (.14)	-.25* (.12)
Financial expertise		.35** (.13)	.34** (.13)	.18 (.14)	.17 (.14)	-.02 (.13)
Industry-specific expertise		-.09 (.13)	-.23 [†] (.14)	-.05 (.15)	-.21 (.15)	-.08 (.13)
Individual performance orientation		.19 (.13)	.27* (.13)	.18 (.14)	.27 [†] (.14)	.12 (.12)
Financial expertise x individual performance orientation			.25* (.13)		.24* (.14)	.10 (.13)
Industry-specific expertise x individual performance orientation			-.18 [†] (.13)		-.23 [†] (.14)	-.13 (.12)
Social status						.56** (.14)
R2	.12	.29	.39	.16	.29	.47
Delta R2		.17*	.10*		.13*	.18**

n = 57 non-executive directors. Standardized regression coefficients reported.

[†]p < .10, *p < .05, **p < .01; t-tests are one-tailed for hypothesized effects, two-tailed for controls. Standard errors in parentheses.

we add status in Model 6 ($\beta = -.13$, *ns*). Table V provides a formal test for the mediation analyses of expertise on conformity through status, by providing the confidence interval of the indirect effect at low (-1SD) mean (M) and high (+1SD) level of individual performance orientation. Panel A presents the conditional indirect effects for financial expertise and indicates that the 95 per cent confidence interval of the conditional indirect effect excludes zero when individual performance orientation is at the mean (.06, .43) and when individual performance orientation is high (.18, .79), but it does not exclude zero when individual performance orientation is low (-.45, .23). This supports Hypothesis 3a. Similarly, Panel B presents the conditional indirect effects for industry-specific expertise and reports that the 95 per cent confidence interval excludes zero when individual performance orientation is high (-.61, -.04), but it does not exclude zero when individual performance orientation is at the mean (-.30, .02) and when individual performance orientation is low (-.12, .29). Thus, in contrast with Hypothesis 3b, we find a negative indirect effect for industry-specific expertise on conformity when individual performance orientation is high.

Hypothesis 4 states that, at the inter-personal level, a fellow director's status within the board weakens the relationship between a focal director's status and that fellow

Figure 3. (A) Interaction for Financial Expertise and Individual Performance Orientation (Study 2). (B) Interaction for Industry-Specific Expertise and Individual Performance Orientation (Study 2)

director's conformity with the focal director. To test this hypothesis we multiplied a focal director's status with a fellow director's status and regressed this term on fellow director's conformity with the focal director. The beta coefficient for this variable is essentially the same as the bivariate Pearson correlation coefficient between this variable and dyad level conformity. Because a fellow director's conformity with a focal director is a dyadic score for which the group and individual level effects are partialled out, individual level variables in this regression do not account for additional variance. So we do not report these relationships in a separate table. The beta coefficient is significantly and negatively related to a fellow director's conformity with the focal director ($\beta = -.17$, $p < .01$), indicating that low-status directors are more likely to conform to a high-status director, thereby supporting Hypothesis 4.

Supplementary Analyses: Robustness and Illustrative Insights from Interviews

Analyses with archival experience data. We also tested the robustness of our findings using archival measures of director experience in financial and industry-specific positions. These archival experience measures were based on information taken from annual

Table V. Conditional indirect effects on conformity through social status study 2

<i>Panel A</i>				
<i>Financial expertise</i>				
<i>Individual performance orientation</i>	<i>Boot indirect effect (a)</i>	<i>Boot SE</i>	<i>95% confidence interval (b)</i>	
<i>Conditional indirect effect at performance orientation = $M \pm 1$ SD</i>			<i>lower bound</i>	<i>upper bound</i>
−1 SD	−0.05	0.16	−.45	.23
M	0.20	0.09	.06	.43
+1 SD	0.45	0.15	.18	.79
<i>Panel B</i>				
<i>Industry-specific expertise</i>				
<i>Individual performance orientation</i>	<i>Boot indirect effect (a)</i>	<i>Boot SE</i>	<i>95% confidence interval (b)</i>	
<i>Conditional indirect effect at performance orientation = $M \pm 1$ SD</i>			<i>lower bound</i>	<i>upper bound</i>
−1 SD	0.05	0.10	−.12	.29
M	−0.12	0.08	−.30	.02
+1 SD	−0.28	0.15	−.61	−.04

(a) Indirect effects are bootstrap estimates. Bootstrap sample size = 5,000.

(b) Bootstrap 95% bias corrected and accelerated confidence interval.

accounts, company websites and other public sources on director backgrounds (detailed information on the measurement is included in the Appendix). We compared our findings resulting from the use of self-reported expertise against archival measure of financial and industry-specific experience. While archival measures of financial and industry-specific experience are not impacted by self-reporting bias, a potential drawback of archival measures is that they generally have lower construct validity because they are more distally related to the constructs they pertain to measure when it comes to board and director functioning (Johnson et al., 2013; see also Lawrence, 1997; Priem et al., 1999). As a result, they have less power to predict such processes. We combine the data of the two studies to increase the statistical power of our supplementary analyses and pick up whether archival measures of experience are related to status within boards.

The supplementary analyses are based on 211 non-executive directors residing within 40 boards from both studies. The results of these analyses are reported in Table VI. We include a study dummy to control for unobserved differences between the studies in our analyses (Model 1-3). These analyses largely corroborate the results previously reported. Specifically, individual performance orientation is found to moderate the relationship between financial experience and status in Model 3 ($\beta = .12$, $p < .05$), but not for industry-specific experience in Model 3 ($\beta = .01$, ns).

Table VI. Additional analyses archival experience data and social status

Variables	Model 1	Model 2	Model 3
	β	β	β
Study dummy	.05 (.07)	.04 (.07)	.05 (.08)
Board size	-.29** (.07)	-.27** (.07)	-.26** (.07)
Number of appointments (log)	.21** (.07)	.18* (.07)	.18* (.08)
Female dummy	-.11 [†] (.06)	-.06 (.06)	-.06 (.06)
Education level	.15* (.07)	.16* (.07)	.18* (.08)
Financial expertise (archival)		.14* (.07)	.11 [†] (.08)
Industry-specific expertise (archival)		.03 (.05)	.04 (.05)
Individual performance orientation		.18** (.06)	.20** (.06)
Financial expertise x individual performance orientation			.12* (.07)
Industry-specific expertise x individual performance orientation			.01 (.07)
Wald χ^2	46.98**	107.15**	126.69**

n = 211 non-executive directors, number of boards = 40. Standardized regression coefficients reported.

[†]p < .10, *p < .05, **p < .01; t-tests are one-tailed for hypothesized effects, two-tailed for controls.

Standard errors are in parentheses. Robust standard errors are in parentheses.

All in all, the results are largely consistent with the results previously reported and document that financial expertise is positively related to a director's status within the board and that a director's individual performance orientation strengthens this relationship. It also demonstrates, however, in contrast to our expectations that industry-specific expertise is not positively associated with status within the board.

Illustrative insights from interviews with directors. The interviews conducted by the first author in Study 2 to provide boards with feedback on their functioning, while not conducted for research purposes, may provide additional insight into this unanticipated finding of why financial experts are accorded higher status within boards, while industry experts are not. During the interviews directors indicated that, overall, financial topics are very prominent within boards. As an illustration, one director notes that '*(w) e always discuss the financial topics first followed by the industry-specific topics, but sometimes people leave during the meeting before these industry-specific topics have been discussed*'. Similarly, a director from another board states '*(t) here are some clear patterns in this board. The financial heavy weights have a significant contribution*'. In describing another board, a director notes that '*(w) hen you look at this board, we really have two different groups of board members. We have the big financial boys on one side and we*

have the industry experts on the other. These two groups act on a different level. An industry expert states that *'(w)e have many issues to address during board meetings. It would be nice to be able to discuss other topics besides finance. It has become a technical financial session'*. On the other hand, a financial expert notes that *'(r)ecent developments necessitate a high level of non-executive directors' expertise, primarily with respect to finance. Some colleagues aren't able to keep up with these developments'*. We further interpret these supplementary analysis results in the discussion section.

GENERAL DISCUSSION

In this paper we argued that to understand how director expertise impacts board decision making, it is first necessary to focus on the more proximal micro-level question of what drives influence within boards. Indeed, in discussing the future of corporate governance research, Hambrick et al. (2008) already noted that simple but relevant questions pertaining to who has the most and who has the least say within boards have remained largely unanswered. We seek to contribute to answering such questions. Building on the rich literature on status characteristics our main argument is that because director expertise is not directly visible and because directors must rely on indirect cues to draw inferences about one another's ability to contribute to the board (see Berger et al., 1972, 1980; Bunderson and Barton, 2011), influence within boards is ultimately the result of a status organizing process. As a result, director expertise does not automatically lead to higher status and influence within boards (see Berger et al., 1972, 1980).

Accordingly, consistent with our theoretical predictions, we find that financial expertise increases directors' status and ultimately conformity within boards and this relationship is contingent on directors' individual performance orientation. Our results show that directors that have a low individual performance orientation are unlikely to be ascribed status for their financial expertise. However, in contrast to our expectations, our results also show that industry-specific expertise does not increase directors' status within boards. These results are consistent across our two studies, also hold for our additional analyses using archival data on director experience, and are in line with interviews we conducted with directors themselves. While unanticipated, these results for industry-specific expertise are rather robust and actually demonstrate the merit of a micro-level examination of expertise and status within boards as it shows that we cannot readily assume that expertise breeds influence within boards.

Our findings advance research on boards of directors in three important ways. First, our findings contribute to the literature of director human capital (Hillman and Dalziel, 2003; Lester et al., 2008; Takacs Haynes and Hillman, 2010) by demonstrating that financial expertise and industry expertise – two prominent aspects of director human capital within board research – are differently valued within boards. Our results indicate that financial expertise leads to higher status within boards, while industry-specific expertise does not. Although boards are likely to benefit from pooling directors' unique insights to arrive at unbiased characterizations of decision alternatives (see Stasser and Titus, 1985; Van der Vegt and Bunderson, 2005), our results demonstrate that having industry experts on the board does not imply that these industry experts are able to exercise influence within boards. This points to a previously unexplored area that might

advance research on director human capital. As director capital within boards, ‘is intended to capture the *ability* [...] to provide resources to the firm (Hillman and Dalziel, 2003)’ (Takacs Haynes and Hillman, 2010, p. 1145; italics added) and as our results suggest that different types of expertise can be differently valued within boards, it seems imperative that future research on director and board capital should incorporate differences in ‘rank’ or perceived value of different types of expertise and other resources within the board. Thus, while studies have already explored the ‘depth’ and ‘breadth’ of directors’ human (and social) capital (Takacs Haynes and Hillman, 2010), future research may also include human capital ‘rank’ as an additional third dimension.

A second contribution of our research is that it demonstrates that status ascription within boards is inherently a status organizing process in the sense that it is just as much a function of directors’ proclivity to demonstrate expertise as it is a function of directors’ expertise itself (see Anderson et al., 2001; Anderson and Kilduff, 2009). When it comes to financial expertise, we consistently found that the more directors are inclined to demonstrate their expertise, the more likely they will be ascribed higher status within the board. However, we did not find such a consistent moderating effect for industry-specific expertise. In the second study we actually found that performance-oriented industry experts are ascribed less status within boards. While we did not anticipate this finding, Almandoz and Tilcsik (2016) recently found that industry experts can actually become a liability in corporate boards particularly when boards are faced with decision uncertainty and changing circumstances. They argued that industry experts are more likely to bring with them ‘entrenched perspectives and habits, which they then attempt to “replicate” on the board’ (p. 1126). Similarly, Furr et al. (2012) also note that industry experts are less likely to integrate new information and alter their perspectives in light of new developments (see also Kor, 2003).

In retrospect, while housing corporations from the first study have a clear industry-specific mission to provide universally accessible housing to underprivileged segments of the Dutch population, such an industry-specific mandate was less pronounced for the organizations from the second study. This could potentially account for the negative relationship between industry-specific expertise and status for performance-oriented directors in the second study. Our additional interviews with the directors from the second study, indeed, indicate that industry-specific topics were not given the same amount of attention as financial topics, some directors noted that it would be nice to discuss other topics besides finance and that sometimes directors even left the board meeting before the industry-specific topics were discussed. Then perhaps if an industry-specific mandate is less clear, directors are less likely to see the added value of industry expertise. This suggests that industry context may impact whether industry expertise is considered valuable within boards and underlines that the context outside the board warrants careful consideration when studying board functioning (see Almandoz and Tilcsik, 2016; Krause et al., 2013; McDonald et al., 2008).

Third, in line with SCT, our results demonstrate that the intra-board social status hierarchy provides higher-status directors with disproportionate influence (see also He and Huang, 2011), because directors that are low in this hierarchy conform to higher-status directors (see Bales et al., 1951; Berger et al., 1977). Performance-oriented financial experts are attributed higher levels of status within boards and receive conformity

from lower-status directors within the board. Then, although director expertise is arguably one of the most important reasons why directors are appointed to the board to begin with (Withers et al., 2012), industry experts and directors low in individual performance orientation are unlikely to be influential during board deliberations. The resulting lack of integration or even bias towards financial matters may have negative implications for board decision making, because it leads to underutilized expertise within boards and a distorted picture of the decision-making alternatives. Our results indicate that low-status directors may, in fact, conform to less knowledgeable, but higher status performance oriented directors (see Berger et al., 1977; Littlepage et al., 1997; Woolley et al., 2008).

Implications for Practice

While our sample relies on responses from supervisory board members of Dutch firms, we believe that given the micro-level nature of our work, our findings also have merit for boards in other countries that are mostly comprised of independent directors. Our findings have several implications for board practice. First, our study provides new insights into how and under what conditions directors ascribe status for financial expertise and industry-specific expertise within boards. The current idea that directors are ascribed influence within boards for their human capital is only partly true. Although our findings suggest that financial experts are influential within boards, they also indicate that industry experts are not. As such, directors need to be cognizant that when industry experts are appointed to the board, they also need to create the conditions under which industry expertise is valued. To ensure that all task-relevant expertise is brought to the fore, such directors could be actively given more opportunities to contribute to the board's decision-making processes.

Second, our study suggests that directors need to be mindful about fellow directors' personality characteristics in ascribing status to these directors. The role of individual performance orientation in ascribing status within boards, signals that a director's actual level of expertise cannot be readily observed by fellow directors. Finkelstein and Mooney (2003, p. 105) quote a director stating that '[I]f you threw five dogs in a room, they would be very clear about who the senior dog was and who the junior dogs were'. An important outcome of our research is that this 'senior dog' is most likely to be a performance-oriented financial expert. Then even though a board is balanced in the sense that it includes both financial and industry-experts, disproportionately ascribing status to performance-oriented financial experts can hamper the integration of multiple expertise domains into coherent and effective board decision-making.

In both cases, be it the dominance of financial expertise over industry-specific expertise, or the effect of individual performance orientation in moderating the relationship between expertise and status within boards, it can be considered the responsibility and capability of the chair of the board to ensure that all valuable input from directors is included in board deliberations. In this respect, our study also underscores the relevance of ongoing professionalization of the board chair position when it comes to enabling and ensuring valuable contributions of all directors to the benefit of board decision

making. If it is one thing that our study shows, it is that we cannot assume director expertise automatically breeds influence within the boardroom.

Limitations, Strengths and Directions for Future Research

We acknowledge several limitations of this study. Although our model implies a specific causal order, our cross-sectional data do not formally allow us to make causal inferences. It will be important for future research to incorporate a longitudinal design in which repeated measurements are incorporated. Notwithstanding the strength of such a longitudinal approach, board scholars will have great difficulty in gaining access to this type of data given researchers' limited access to primary field data in the board context (Hillman et al., 2008). Furthermore, our main analyses are based on self-reported measures of expertise. While we had conceptual reasons to measure expertise using self-ratings and while we were able to replicate our main results using archival measures to proxy director expertise, it is important to acknowledge that self-report measures may be prone to biases (e.g., directors overestimating their own expertise).

Another limitation of our work is that conformity was measured with a single round-robin item. While using multiple items to measure a construct is preferable, the use of a single item measure to provide ratings on numerous other individuals is common in social network studies (see for instance de Jong et al., 2007; Gupta et al., 2016; Umphress et al., 2003). Researchers have, for instance, demonstrated that single item measures can be appropriate when the construct being measured is unambiguous to the respondents (Sackett and Larson, 1990) and, specifically for the case of round-robin ratings, providing respondents with a roster of individuals can aid to yield reliable measures (Marsden, 1990, see also Gupta et al., 2016). Because of the time and effort required for directors to answer the same round-robin conformity item multiple times for every director within the board, having directors rate multiple conformity items is likely to engender negative reactions also given directors' busy schedules and sensitive nature of conformity ratings. Indeed, during our initial contacts to garner participation for our research, several chairpersons noted that directors might be hesitant to interpersonally evaluate one another and they advised us to keep the survey as short as possible.

Our sample is relatively small in terms of the participating boards (i.e., 30 boards in study 1 and ten boards in study 2). Several scholars studying the functioning of boards study a large number of organizations and use publicly available data to proxy for board processes. They do so because access to boards is almost impossible (He and Huang, 2011). We are at the opposite end of this spectrum. We did not incorporate proxy measures that may also indicate something other than competence or influence. Our results are based on micro-level data at the directors and inter-personal level of analysis based on director rating their fellow directors within the board. To add robustness to our findings, we replicated part of our model in two separate studies, we performed supplementary analyses using archival experience measures as well as interviews with directors themselves. We were able show that financial expertise and the moderating role of individual performance orientation can be considered as robust predictors for a director's status within the board, while industry-specific expertise is not.

Our study stops short of examining the performance implications of expertise and status differences for the board as a whole. From a group decision making perspective it does not make sense to appoint directors to the board and then not provide these directors with the opportunity to contribute to board decision-making. Indeed, the very existence of boards of directors is rooted in the belief that collective knowledge is necessary for an effective board (Forbes and Milliken, 1999). While our results show that performance oriented directors may receive a disproportionate level of status, it would also be worthwhile to gain insight into micro-level factors that determine when expertise differences within boards increase or decrease board decision making effectiveness. In a similar vein, it remains an open question whether the relationship between expertise, status ascription, and conformity holds under different circumstances such as when a firm faces an organizational crisis (e.g., the emergence of new types of competition). Perhaps under these circumstances directors possessing the most relevant expertise (i.e., those with industry expertise) do speak up in an attempt to secure the firm's survival.

In this vein, while some scholars suggest that status differences may be beneficial for board effectiveness because they help to coordinate boardroom interactions (He and Huang, 2011), others attest, however, that status differences are detrimental to group functioning, particularly when outcomes are ambiguous and status manoeuvring might result in disproportionate levels of status to less-qualified individuals (Anderson and Kilduff, 2009). We maintain that future research on board effectiveness may benefit from acknowledging that director human capital may not automatically result in status and influence within boards. A director's expertise is unlikely to influence board deliberations, if fellow directors do not ascribe status to this director. Failing to account for such complexities is likely to lead to equivocal findings in linking board human capital to board level outcomes (see also Hambrick et al., 2008; Johnson et al., 2013).

Finally, another potentially important contingency is the expertise of the CEO itself. For instance, when it comes to advice provision, directors with complementary and task-relevant expertise vis-à-vis the CEO would potentially be better equipped to scrutinize strategic decision making. This would open up a virtually unexplored but important avenue for board research on the interplay between director expertise and CEO expertise in trying to find out why and when director expertise leads to influence within boards.

CONCLUSION

Our study provides unique insights into the behavioural dynamics that underlie decision making in the boardroom by focusing on a simple but relevant question: *How and under what conditions does director expertise result in status and conformity within boards?* Our study demonstrates that directors with the same level of expertise may not have equal sway within the confines of the boardroom; hence, a nuanced perspective is necessary when one is studying how director expertise affects director's status and conformity within the board. While our study is a first step on the path to answer this question, our findings extend the extant literature on boards of directors and hopefully spurs future research employing research methods and theorizing at the micro-level of analysis.

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NOTES

- [1] We refer to non-executive directors or outside directors as directors. The CEO and the other executives are referred to as senior management. This is in line with the literature in which the board of directors is referred to as the controlling body of senior management (e.g., Adams et al., 2010).
- [2] For readers with a macro perspective, our use of the words ‘performance’ and ‘goal’ may be somewhat confusing. In our micro-level theory these terms refer to the performance and goal of the director and not to performance and goal of the firm. While goal orientation research and the group literature generally uses the term ‘performance orientation’, for our research, it is preferable to use the term ‘individual performance orientation’. We thank an anonymous reviewer for providing us with this suggestion.
- [3] Also from our own interviews with directors – more information about these interviews is included in the discussion section – several directors note that most time is spent on financial issues during board meetings.
- [4] The term ‘compliance’ is also used in the institutional and legislative literature on corporate governance to refer to the adoption of best practices or obedience to the law. For purposes of parsimony and consistent with the literature on social status, we use the term ‘conformity’.
- [5] We obtained these data from the Dutch government at <http://www.rijksoverheid.nl>.
- [6] Given that status is rated by fellow directors, self-reporting bias would not account for higher status within the board. Also, supplementary analyses based on archival experience measures corroborate the results reported. We are grateful to an anonymous reviewer for providing us with this suggestion. Please see the section “Analyses with archival experience data” and the Appendix for further details.
- [7] SOREMO cannot handle missing interpersonal data, we therefore could not use SOREMO in Study 1.

APPENDIX: DETAILS ADDITIONAL ARCHIVAL EXPERIENCE DATA

We captured the positions of each director and we identified the first two digits of the standard industrial classification for each appointment (SIC, the Dutch term ‘Stand-aard BedrijfsIndeling, SBI, is equivalent to the SIC). If the first two digits matched, this position was coded as industry-specific (see also Cohen et al., 2014; Kroll et al., 2007; Oehmichen et al., 2016; Takacs Haynes and Hillman, 2010).

Consistent with prior studies (Badolato et al., 2014; Cohen et al., 2014; DeFond et al., 2005; Dhaliwal et al., 2010; Krishnan et al., 2011) a director has financial experience if she has: (1) experience as a principal financial officer, principal accounting officer, controller, public accountant or auditor or experience in one or more positions that involve the performance of similar functions; (2) experience actively supervising a principal financial officer, principal accounting officer, controller, public accountant, auditor or person performing similar functions; (3) experience overseeing or assessing the performance of companies or public accountants with respect to the preparation, auditing or evaluation of financial statements.

We then calculated a director’s total industry-specific and financial tenure by summing a director’s tenure across all sector-specific appointments and financial appointments respectively (we thank an anonymous reviewer for this suggestion). If a director’s tenure within a position could not be ascertained from publicly available information, we requested the records (company extract, historical information) from

the Dutch Chamber of Commerce for that position in order to calculate the tenure. We then subsequently log transformed both financial and industry-specific experience.

REFERENCES

- Adams, R. B., Hermlin, B. E. and 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.
- Agrawal, A. and Chadha, S. (2005). 'Corporate governance and accounting scandals'. *Journal of Law & Economics*, **48**, 371–406.
- Aiken, L. S. and West, S. G. (1991). *Multiple Regression: Testing and Interpreting Interactions*. London: Sage.
- Almandoz, J. and Tilcsik, A. (2016). 'When experts become liabilities: domain experts on boards and organizational failure'. *Academy of Management Journal*, **59**, 1124–49.
- Anderson, C., John, O. P., Keltner, D. and Kring, A. M. (2001). 'Who attains social status? Effects of personality and physical attractiveness in social groups'. *Journal of Personality and Social Psychology*, **81**, 116–32.
- Anderson, C., Srivastava, S., Beer, J. S., Spataro, S. E. and Chatman, J. A. (2006). Knowing your place: self-perceptions of status in face-to-face groups. *Journal of Personality and Social Psychology*, **91**, 1094–110.
- Anderson, C. and Kilduff, G. J. (2009). 'Why do dominant personalities attain influence in face-to-face groups? The competence-signaling effects of trait dominance'. *Journal of Personality and Social Psychology*, **96**, 491–503.
- Asch, S. E. (1951). 'Effects of group pressure on the modification and distortion of judgements'. In Guetzkow, H. (Ed.), *Groups, Leadership and Men*. Pittsburgh, PA: Carnegie Press, 177–90.
- Badolato, P. G., Donelson, D. C. and Ege, M. (2014). 'Audit committee financial expertise and earnings management: the role of status'. *Journal of Accounting and Economics*, **58**, 208–30.
- Bales, R. F., Strodtbeck, F. L., Mills, T. M. and Roseborough, M. E. (1951). 'Channels of communication in small groups'. *American Sociological Review*, **16**, 461–8.
- Barton, M. A. and Bunderson, J. S. (2014). 'Assessing member expertise in groups: an expertise dependence perspective'. *Organizational Psychology Review*, **4**, 228–57.
- Bell, B. S. and Kozlowski, S. W. J. (2002). 'Goal orientation and ability: interactive effects on self-efficacy, performance, and knowledge'. *Journal of Applied Psychology*, **87**, 497–505.
- Berger, J., Cohen, B. P. and Zelditch, M. Jr (1972). 'Status characteristics and social interaction'. *American Sociological Review*, **37**, 241–55.
- Berger, J., Fisek, M. H., Norman, R. Z. and Zelditch, M. (1977). *Status Characteristics and Social Interaction: An Expectation-States Approach*. New York: Elsevier.
- Berger, J., Rosenholtz, S. J. and Zelditch, M. (1980). 'Status organizing processes'. *Annual Review of Sociology*, **6**, 479–508.
- Berger, J., Ridgeway, C. L., Fisek, M. H. and Norman, R. Z. (1998). 'The legitimation and delegitimation of power and prestige orders'. *American Sociological Review*, **63**, 379–405.
- Berger, J., Ridgeway, C. L. and Zelditch, M. (2002). 'Construction of status and referential structures'. *Sociological Theory*, **20**, 157–79.
- Bliese, P. D. (2000). 'Within-group agreement, non-independence, and reliability: implications for data aggregation and analysis'. In Klein, K. J. and Kozlowski, S. W. J. (Eds), *Multilevel Theory, Research, and Methods in Organizations*. San Francisco, CA: Jossey-Bass, 349–81.
- Boivie, S., Bednar, M. K., Aguilera, R. V. and Andrus, J. L. (2016). 'Are boards designed to fail? The implausibility of effective board monitoring'. *Academy of Management Annals*, **10**, 319–407.
- Brett, J. F. and VandeWalle, D. (1999). 'Goal orientation and goal content as predictors of performance in a training program'. *Journal of Applied Psychology*, **84**, 863–73.
- Bunderson, J. S. (2003). 'Recognizing and utilizing expertise in work groups: a status characteristics perspective'. *Administrative Science Quarterly*, **48**, 557–91.
- Bunderson, J. S., Barton, M. A. (2011). 'Status cues and expertise assessment in groups: how group members size one another up ... and why it matters'. In Pearce, J. L. (Ed.), *Status in Management and Organizations*. Cambridge: Cambridge University Press, 215–37.
- Campbell, J. P., McCloy, R. A., Oppler, S. H. and Sager, C. E. (1993). 'A theory of performance'. In Schmitt, N. and Borman, W. C. (Eds), *Personnel Selection in Organizations*. San Francisco, CA: Jossey-Bass, 35–70.

- Carpenter, M. A. and 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**, 639–60.
- Carter, C. B. and Lorsch, J. W. (2004). *Back to the Drawing Board – Designing Corporate Boards for a Complex World*. Boston, MA: Harvard Business School Press.
- Cialdini, R. B. and Goldstein, N. J. (2004). 'Social influence: compliance and conformity'. *Annual Review of Psychology*, **55**, 591–621.
- Cohen, J. R., Hoitash, U., Krishnamoorthy, G. and Wright, A. M. (2014). 'The effect of audit committee industry expertise on monitoring the financial reporting process'. *Accounting Review*, **89**, 243–73.
- D'Aveni, R. A. (1990). 'Top managerial prestige and organizational bankruptcy'. *Organization Science*, **1**, 121–42.
- Davis, G. F. (2009). 'The rise and fall of finance and the end of the society of organizations'. *Academy of Management Perspectives*, **23**, 27–44.
- de Jong, S. B., Van der Veegt, G. S. and Molleman, E. (2007). 'The relationship among asymmetry in task dependence, perceived helping behavior, and trust'. *Journal of Applied Psychology*, **92**, 1625–37.
- DeFond, M. L., Hann, R. N. and Hu, X. S. (2005). 'Does the market value financial expertise on audit committees of boards of directors?'. *Journal of Accounting Research*, **43**, 153–93.
- Deloitte, L. L. P. and Society of Corporate Secretaries and Governance Professionals. (2012). *Board Practices Report: Providing Insight into the Shape of Things to Come*. Available at <http://www2.deloitte.com/ie/en/pages/risk/articles/2012-board-practices-report.html> (accessed 1 May 2017).
- Deloitte, L. L. P. and Society of Corporate Secretaries and Governance Professionals. (2014). *Board Practices Report: Perspectives from the Board Room*. Available at <https://www2.deloitte.com/us/en/pages/center-for-board-effectiveness/articles/board-practices-report-perspectives-boardroom-governance.html> (accessed 1 May 2017).
- Dhaliwal, D., Naiker, V. and Navissi, F. (2010). 'The association between accruals quality and the characteristics of accounting experts and mix of expertise on audit committees'. *Contemporary Accounting Research*, **27**, 787–827.
- Dweck, C. S. and Leggett, E. L. (1988). 'A social cognitive approach to motivation and personality'. *Psychological Review*, **95**, 256–73.
- Edwards, J. R. and Lambert, L. S. (2007). 'Methods for integrating moderation and mediation: a general analytical framework using moderated path analysis'. *Psychological Methods*, **12**, 1–22.
- Elliot, A. J. and McGregor, H. A. (2001). 'A 2 x 2 achievement goal framework'. *Journal of Personality and Social Psychology*, **80**, 501–19.
- Elliot, E. S. and Dweck, C. S. (1988). 'Goals – an approach to motivation and achievement'. *Journal of Personality and Social Psychology*, **54**, 5–12.
- Falbe, C. M. and Yukl, G. (1992). 'Consequences for managers of using single influence tactics and combinations of tactics'. *Academy of Management Journal*, **35**, 638–52.
- Faleye, O., Hoitash, R. and Hoitash, U. (2014). 'Industry expertise on corporate boards'. *SSRN Electronic Journal*. Available at <http://dx.doi.org/10.2139/ssrn.2117104> (accessed 1 May 2017).
- Finkelstein, S. (1992). 'Power in top management teams – dimensions, measurement, and validation'. *Academy of Management Journal*, **35**, 505–38.
- Finkelstein, S. and Mooney, A. C. (2003). 'Not the usual suspects: how to use board process to make boards better'. *Academy of Management Executive*, **17**, 101–13.
- Forbes, D. P. and Milliken, F. J. (1999). 'Cognition and corporate governance: understanding boards of directors as strategic decision-making groups'. *Academy of Management Review*, **24**, 489–505.
- Furr, N. R., Cavarretta, F. and Garg, S. (2012). 'Who changes course? The role of domain knowledge and novel framing in making technology changes'. *Strategic Entrepreneurship Journal*, **6**, 236–56.
- Galinsky, A. D., Magee, J. C., Gruenfeld, D. H., Whitson, J. A. and Liljenquist, K. A. (2008). 'Power reduces the press of the situation: implications for creativity, conformity, and dissonance'. *Journal of Personality and Social Psychology*, **95**, 1450–66.
- Germain, M.-L. and Tejada, M. J. (2012). 'A preliminary exploration on the measurement of expertise: an initial development of a psychometric scale'. *Human Resource Development Quarterly*, **23**, 203–32.
- Groysberg, B., Polzer, J. T. and Elfenbein, H. A. (2011). 'Too many cooks spoil the broth: how high-status individuals decrease group effectiveness'. *Organization Science*, **22**, 722–37.
- Gupta, N., Ho, V., Pollack, J. M. and Lai, L. (2016). 'A multilevel perspective of interpersonal trust: individual, dyadic, and cross-level predictors of performance'. *Journal of Organizational Behavior*, **37**, 1271–92.
- Hambrick, D. C., Werder, A. V. and Zajac, E. J. (2008). 'New directions in corporate governance research'. *Organization Science*, **19**, 381–5.

- Hambrick, D. C., Misangyi, V. F. and Park, C. A. (2015). 'The quad model for identifying a corporate director's potential for effective monitoring: toward a new theory of board sufficiency'. *Academy of Management Review*, **40**, 323–44.
- Hayes, A. F. (2013). *An Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*. New York: Guilford Press.
- He, J. and Huang, Z. (2011). 'The informal hierarchy of the board of directors and firm financial performance: exploring a tacit structure guiding boardroom interactions'. *Academy of Management Journal*, **54**, 1119–39.
- Hillman, A. J. and Dalziel, T. (2003). 'Boards of directors and firm-performance: integrating agency and resource dependence perspectives'. *Academy of Management Review*, **28**, 383–96.
- Hillman, A. J., Nicholson, G. and Shropshire, C. (2008). 'Directors' multiple identities, identification, and board monitoring and resource provision'. *Organization Science*, **19**, 441–56.
- James, L. R., Demaree, R. G. and Wolf, G. (1984). 'Estimating within-group interrater reliability with and without response bias'. *Journal of Applied Psychology*, **69**, 85–98.
- James, L. R., Demaree, R. G. and Wolf, G. (1993). 'R(wg) – an assessment of within-group interrater agreement'. *Journal of Applied Psychology*, **78**, 306–9.
- Janssen, O. and Prins, J. (2007). 'Goal orientations and the seeking of different types of feedback information'. *Journal of Occupational and Organizational Psychology*, **80**, 235–49.
- Janssen, O. and Van Yperen, N. W. (2004). 'Employees' goal orientations, the quality of leader-member exchange, and the outcomes of job performance and job satisfaction'. *Academy of Management Journal*, **47**, 368–84.
- Jensen, M. C. (1993). 'The modern industrial revolution, exit, and the failure of internal control systems'. *Journal of Finance*, **48**, 831–80.
- Johnson, J. L., Ellstrand, A. E. and Daily, C. M. (1996). 'Boards of directors: a review and research agenda'. *Journal of Management*, **22**, 409–38.
- Johnson, S. G., Schnatterly, K. and Hill, A. D. (2013). 'Board composition beyond independence: social capital, human capital, and demographics'. *Journal of Management*, **39**, 232–62.
- Kaczmarek, S., Kimino, S. and Pye, A. (2012). 'Board task-related faultlines and firm performance: a decade of evidence'. *Corporate Governance: An International Review*, **20**, 337–51.
- Kelman, H. C. (1956). '3 processes of acceptance of social-influence – compliance, identification, and internalization'. *American Psychologist*, **11**, 361.
- Kelman, H. C. (1958). 'Compliance, identification, and internalization three processes of attitude change'. *Journal of Conflict Resolution*, **2**, 51–60.
- Keltner, D., Gruenfeld, D. H. and Anderson, C. (2003). 'Power, approach, and inhibition'. *Psychological Review*, **110**, 265–84.
- Kenny, D. A. (1995). *SOREMO Version V.2: A FORTRAN program for the analysis of round-robin data structures*. Unpublished manuscript, University of Connecticut, MA.
- Kenny, D. A., Kashy, D. A. and Cook, W. L. (2006). *Dyadic Data Analyses*. New York: Guilford Press.
- Khanna, P., Jones, C. D. and Boivie, S. (2014). 'Director human capital, information processing demands, and board effectiveness'. *Journal of Management*, **40**, 557–85.
- Kor, Y. Y. (2003). 'Experience-based top management team competence and sustained growth'. *Organization Science*, **14**, 707–19.
- Kor, Y. Y. and Misangyi, V. F. (2008). 'Outside directors' industry-specific experience and firms' liability of newness'. *Strategic Management Journal*, **29**, 1345–55.
- Kor, Y. Y. and Sundaramurthy, C. (2009). 'Experience-based human capital and social capital of outside directors'. *Journal of Management*, **35**, 981–1006.
- Krause, R., Semadeni, M. and Cannella, A. A. (2013). 'External COO/presidents as expert directors: a new look at the service role of boards'. *Strategic Management Journal*, **34**, 1628–41.
- Krishnan, J., Wen, Y. and Zhao, W. (2011). 'Legal expertise on corporate audit committees and financial reporting quality'. *Accounting Review*, **86**, 2099–130.
- Kroll, M., Walters, B. A. and Le, S. A. (2007). 'The impact of board composition and top management team ownership structure on post-IPO performance in young entrepreneurial firms'. *Academy of Management Journal*, **50**, 1198–216.
- Kroll, M., Walters, B. A. and Wright, P. (2008). 'Board vigilance, director experience, and corporate outcomes'. *Strategic Management Journal*, **29**, 363–82.
- Lawrence, B. S. (1997). 'The black box of organizational demography'. *Organization Science*, **8**, 1–22.
- Leblanc, R. and Schwartz, M. S. (2007). 'The black box of board process: gaining access to a difficult subject'. *Corporate Governance: an International Review*, **15**, 843–51.

- LeBreton, J. M. and Senter, J. L. (2008). 'Answers to 20 questions about interrater reliability and interrater agreement'. *Organizational Research Methods*, **11**, 815–52.
- Lester, R. H., Hillman, A., Zardkoohi, A. and Cannella, A. A. (2008). 'Former government officials as outside directors: the role of human and social capital'. *Academy of Management Journal*, **51**, 999–1013.
- Littlepage, G. E. and Mueller, A. L. (1997). 'Recognition and utilization of expertise in problem-solving groups: expert characteristics and behavior'. *Group Dynamics: Theory, Research, and Practice*, **1**, 324–8.
- Littlepage, G., Robison, W. and Reddington, K. (1997). 'Effects of task experience and group experience on group performance, member ability, and recognition of expertise'. *Organizational Behavior and Human Decision Processes*, **69**, 133–47.
- Lorsch, J. W. and MacIver, E. (1989). *Pawns or Potentates: The Reality of America's Corporate Boards*. Boston, MA: Harvard Business School Press.
- Mace, M. L. (1986). *Directors: Myths and Reality*, 2nd edition. Boston, MA: Harvard Business School Press.
- Magee, J. C. and Galinsky, A. D. (2008). 'Chapter 8: social hierarchy: the self-reinforcing nature of power and status'. *Academy of Management Annals*, **2**, 351–98.
- Marsden, P. V. (1990). 'Network data and measurement'. *Annual Review of Sociology*, **16**, 435–63.
- McDaniel, L., Martin, R. D. and Maines, L. A. (2002). 'Evaluating financial reporting quality: the effects of financial expertise vs. financial literacy'. *Accounting Review*, **77**, 139–67.
- McDonald, M. L., Westphal, J. D. and Graebner, M. E. (2008). 'What do they know? The effects of outside director acquisition experience on firm acquisition performance'. *Strategic Management Journal*, **29**, 1155–77.
- McNulty, T. and Pettigrew, A. (1999). 'Strategists on the board'. *Organization Studies*, **20**, 47–74.
- Milgram, S. (1965). 'Some conditions of obedience and disobedience to authority'. *Human Relations*, **18**, 57–76.
- Oehmichen, J., Schrapp, S. and Wolff, M. (2016). 'Who needs experts most? Board industry expertise and strategic change-a contingency perspective'. *Strategic Management Journal*, **38**, 645–56.
- Park, S. H., Westphal, J. D. and Stern, I. (2011). 'Set up for a fall: the insidious effects of flattery and opinion conformity toward corporate leaders'. *Administrative Science Quarterly*, **56**, 257–302.
- Payne, S. C., Youngcourt, S. S. and Beaubien, J. M. (2007). 'A meta-analytic examination of the goal orientation nomological net'. *Journal of Applied Psychology*, **92**, 128–50.
- Pearce, J. A. and Zahra, S. A. (1992). 'Board composition from a strategic contingency perspective'. *Journal of Management Studies*, **29**, 411–38.
- Pettigrew, A. M. (1992). 'On studying managerial elites'. *Strategic Management Journal*, **13**, 163–82.
- Pozen, R. C. (2010). 'The case for professional boards'. *Harvard Business Review*, **88**, 50–8.
- PricewaterhouseCoopers. (2012). *Insights from the Boardroom 2012 Board evolution: Progress Made, Yet Challenges Persist*. Available at <http://www.pwc.com/us/en/financial-services/events/assets/pwc-annual-corporate-directors-survey.pdf> (accessed 1 May 2017).
- Priem, R. L., Lyon, D. W. and Dess, G. D. (1999). 'Inherent limitations of demographic proxies in top management team heterogeneity research'. *Journal of Management*, **25**, 935–53.
- Rajagopalan, N. and Datfa, D. K. (1996). 'CEO characteristics: does industry matter?'. *Academy of Management Journal*, **39**, 197–215.
- Sackett, P. R. and Larson, J. R. (1990). 'Research strategies and tactics in industrial and organizational psychology'. In Dunette, M. D. and Hough, L. M. (Eds), *Handbook of Industrial and Organizational Psychology*. Palo Alto, CA: Consulting Psychologists Press, **2**, 419–89.
- Simpson, B., Willer, R. and Ridgeway, C. L. (2012). 'Status hierarchies and the organization of collective action'. *Sociological Theory*, **30**, 149–66.
- Stasser, G. and Titus, W. (1985). 'Pooling of unshared information in group decision-making - biased information sampling during discussion'. *Journal of Personality and Social Psychology*, **48**, 1467–78.
- Stiles, P. and Taylor, B. (2001). *Boards at Work - How Directors View Their Roles and Responsibilities*. Oxford: Oxford University Press.
- Takacs Haynes, K. and Hillman, A. (2010). 'The effect of board capital and CEO power on strategic change'. *Strategic Management Journal*, **31**, 1145–63.
- Tian, J. J., Halebian, J. J. and Rajagopalan, N. (2011). 'The effects of board human and social capital on investor reactions to new CEO selection'. *Strategic Management Journal*, **32**, 731–47.
- Umphress, E. E., Labianca, G., Kass, E. and Scholten, L. (2003). 'The role of instrumental and expressive social ties in employees' perceptions of organizational justice'. *Organization Science*, **14**, 738–53.
- Van der Veegt, G. S. and Bunderson, J. S. (2005). 'Learning and performance in multidisciplinary teams: the importance of collective team identification'. *Academy of Management Journal*, **48**, 532–47.

- VandeWalle, D. (1997). 'Development and validation of a work domain goal orientation instrument'. *Educational and Psychological Measurement*, **57**, 995–1015.
- Venkataramani, V., Green, S. G. and Schleicher, D. J. (2010). 'Well-connected leaders: the impact of leaders' social network ties on LMX and members' work attitudes'. *Journal of Applied Psychology*, **95**, 1071–84.
- 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. and 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 US companies'. *Academy of Management Journal*, **50**, 267–88.
- Westphal, J. D. and 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**, 607–61.
- White, H. (1980). 'A heteroskedasticity-consistent covariance-matrix estimator and a direct test for heteroskedasticity'. *Econometrica*, **48**, 817–38.
- Williams, R. L. (2000). 'A note on robust variance estimation for cluster-correlated data'. *Biometrics*, **56**, 645–6.
- Withers, M. C., Corley, K. G. and Hillman, A. J. (2012). 'Stay or leave: director identities and voluntary exit from the board during organizational crisis'. *Organization Science*, **23**, 835–50.
- Woolley, A. W., Gerbasi, M. E., Chabris, C. F., Kosslyn, S. M. and Hackman, J. R. (2008). 'Bringing in the experts: how team composition and collaborative planning jointly shape analytic effectiveness'. *Small Group Research*, **39**, 352–71.
- Yukl, G., Kim, H. and Falbe, C. M. (1996). 'Antecedents of influence outcomes'. *Journal of Applied Psychology*, **81**, 309–17.
- Yukl, G., Chavez, C. and Seiefert, C. F. (2005). 'Assessing the construct validity and utility of two new influence tactics'. *Journal of Organizational Behavior*, **26**, 705–25.
- Zagenczyk, T. J., Scott, K. D., Gibney, R., Murrell, A. J. and Thatcher, J. B. (2010). 'Social influence and perceived organizational support: a social networks analysis'. *Organizational Behavior and Human Decision Processes*, **111**, 127–38.