

THE EFFECTS OF TOP MANAGEMENT TEAM INTEGRATIVE COMPLEXITY AND DECENTRALIZED DECISION MAKING ON CORPORATE SOCIAL PERFORMANCE

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We examine the influence of top management teams' (TMTs') integrative complexity and decentralization of decision making on corporate social performance. We argue that both factors increase TMT ability to gather information on, and attend to, stakeholder needs, thereby yielding higher corporate social performance. We further predict that decentralization moderates the relationship between integrative complexity and corporate social performance in such a way that the relationship is stronger under conditions of centralization. Using a Q-sort methodology, which translates complex qualitative observations into quantitative metrics, we examined integrative complexity and decentralization in 61 *Fortune* 500 firms and found support for our predictions.

In the wake of numerous corporate scandals, corporate social performance has garnered much attention from business practitioners and academics alike. Corporate social performance refers to “a business organization’s configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm’s societal relationships” (Wood, 1991: 693). The dominant perspective taken in evaluating a firm’s corporate social performance is the stakeholder approach, according to which firms act in a socially responsible manner when they take the interests of multiple stakeholders (e.g., customers, employees) into account (McGuire, Dow, & Argheyd, 2003; Ruf, Murallidhar, Brown, Janney, & Paul, 2001).

Because strategic leaders—that is, a firm’s CEO and the senior executives who belong to its top management team (TMT)—typically make deci-

sions regarding strategic direction, including corporate social performance policies (Finkelstein & Hambrick, 1996; Hambrick & Mason, 1984; Thomas & Simerly, 1994; Wood, 1991), a handful of studies have focused on how CEOs and their incentives (e.g., Deckop, Merriman, & Gupta, 2006; McGuire et al., 2003), values (e.g., Agle, Mitchell, & Sonnenfeld, 1999; Hemingway & Maclagan, 2004; Waldman et al., 2006), leadership style (e.g., Waldman, Siegel, & Javidan, 2006), and past experience and training (Daboub, Rasheed, Priem, & Gray, 1995; Thomas & Simerly, 1994, 1995) influence various organizational stakeholders.

This research has furthered academic understanding of how CEOs influence corporate social performance, yet scholars have yet to fully explore the role of an executive team as a whole in determining a firm’s corporate social performance. Although CEOs are typically not the sole decision makers for firm strategy (e.g., Finkelstein & Hambrick, 1996; Hambrick & Mason, 1984; Peterson, Smith, Martorana, & Owens, 2003), we are aware of only one study that has examined the influence of TMTs on corporate social performance (Thomas & Simerly, 1995). In their work, Thomas and Simerly focused on how TMTs’ functional backgrounds and tenure affect corporate social performance. These demographic characteristics are argued to be proxies for patterns of information search and processing within top teams. This research highlights the

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importance of better understanding how TMT decision-making processes affect corporate social performance and calls for research methodologies that allow more direct examination of these processes.

In this article, we aim to further understanding of these decision-making processes by examining how organizational and sociocognitive factors within TMTs influence corporate social performance. We employed a Q-sort methodology, which is used to translate complex qualitative observations into quantitative metrics, to directly measure TMT processes. Doing so allowed us to explore the black box of the sociocognitive processes that guide TMTs' decision-making behavior (Hambrick, 2007). Specifically, we examined how the integrative complexity (i.e., the ability to differentiate among and integrate multiple perspectives) of TMTs affects how members attend to and satisfy the needs of various stakeholders. In addition, we examined how an organizational factor, decentralization of decision making, not only impacts corporate social performance directly, but also moderates the relationship between TMT integrative complexity and corporate social performance. In this way, we examined both TMT sociocognitive and organizational factors to better understand their relationship with corporate social performance.

THE INFLUENCE OF TMT INTEGRATIVE COMPLEXITY ON CORPORATE SOCIAL PERFORMANCE

A fundamental assumption of corporate social performance research is that "business and society are interwoven rather than distinct entities; therefore, society has certain expectations for appropriate business behaviors and outcomes" (Wood, 1991: 695). Thus, drawing on and integrating various past definitions (e.g., Carroll, 1979; Ullman, 1985; Wartick & Cochran, 1985), we define corporate social performance as a componential model incorporating principles of corporate social responsibility, processes of corporate social responsiveness, and outcomes of corporate behavior (Wood, 1991). In measuring this construct, researchers have typically favored a stakeholder approach (e.g., Boal & Perry, 1985; Ullman, 1985; Wood & Jones, 1995) in which stakeholders are defined as groups, such as employees and customers, that affect or are affected by the organization whose corporate social performance is under consideration (Freeman, 1984). According to stakeholder theory, a firm achieves higher corporate social performance when it meets more stakeholder needs, whereas it attains lower corporate social performance when it meets

fewer stakeholder needs. Further, any one stakeholder's interests should not be satisfied at the expense of others, but rather, multiple stakeholders should be managed within a "mutually supportive framework" (Donaldson & Preston, 1995: 87). Because managers are responsible for determining and satisfying stakeholder needs, it is important to understand their role in corporate social performance (e.g., Thomas & Simerly, 1994, 1995).

One framework that is useful for exploring the effect of managers on corporate social performance is strategic leadership theory, according to which executives' orientations, comprised of psychological factors (e.g., personality, cognitive style, and values) and experiences (e.g., tenure, functional background), influence their strategic decision making and, in turn, firm outcomes (Finkelstein & Hambrick, 1996; Finkelstein, Hambrick, & Cannella, 2009). Although the role of executives' personality, values, and experiences has received attention in the strategic management literature, less attention has been given to executives' cognitive style.

Finkelstein and Hambrick defined cognitive style as "how a person's mind works—how he or she gathers and processes information" (1996: 64). Several typologies of cognitive styles have been proposed, including Mintzberg's "planners versus thinkers" and Jung's typology of executives based on how people perceive and judge information (see Finkelstein & Hambrick [1996] for a review). Particularly germane to the study of corporate social performance is *integrative complexity*, a cognitive style that researchers have examined to understand how top leaders, such as U.S. Supreme Court justices (Tetlock, Bernzweig, & Gallant, 1985), military commanders (Suedfeld, Corteen, & McCormick, 1986; Suedfeld & Granatstein, 1995), and presidents (e.g., Tetlock, 1981) influence macrolevel outcomes, such as prevailing in elections and military conflicts. Integrative complexity has also been positively related to moral development (deVries & Walker, 1986; Sullivan, McCullough, & Stager, 1970) and to trade-off reasoning (Tetlock, Peterson, & Lerner, 1996), both of which have obvious implications for ethics and corporate social performance (Hemingway, 2005).

Integrative complexity is comprised of evaluative differentiation, which refers to "the capacity and willingness to tolerate different points of view," and conceptual integration, which is defined as the ability to "generate linkages between points of view, to understand why people look at the same event in different ways, to confront trade-offs, and to appreciate interactive patterns of causation" (Tetlock, Peterson, & Berry, 1993: 500). On the basis

of evaluative differentiation and conceptual integration, people can be described on a continuum ranging from simple (having low integrative complexity) to complex (having high integrative complexity).

Although integrative complexity exists on a continuum, researchers have often focused on the polar ends of the construct to describe its effects on cognitive and social processes (e.g., Hermann, 1999; Tetlock et al., 1993). For instance, low-integrative-complexity individuals tend to rely on heuristics and gather information according to stereotypes. These individuals make decisions quickly, since they trust their instincts. Moreover, they recognize the disadvantages associated with spending too much time evaluating alternative solutions to problems (Hermann, 1999; Tetlock, 1991; Tetlock et al., 1993). At the other end of the continuum, high-integrative-complexity individuals are skeptical of black-and-white interpretations of events and tend to see shades of gray in the issue or decision at hand. These individuals are more open-minded and seek out a wide variety of information and perspectives to inform their decision making (Schroder, Driver, & Streufert, 1967). Integratively complex individuals are also more likely to take into account both confirming and disconfirming evidence when making decisions—they are good listeners, even if they do not agree with the opinions being presented (Tetlock et al., 1993).

Although the bulk of the research on integrative complexity has focused on individual decision makers, teams exhibit analogous patterns of information processing and decision making (e.g., Gruenfeld & Hollingshead, 1993; Gruenfeld, Thomas-Hunt, & Kim, 1998; Peterson & Nemeth, 1996; Peterson, Owens, Tetlock, Fan, & Martorana, 1998; Peterson et al., 2003). Team-level integrative complexity may arise from integratively complex individuals who, on average, increase a group's ability to recognize different perspectives and formulate integrative courses of action. However, it is also possible for team-level integrative complexity to arise from diversity in perspectives and group social processes. For instance, Gruenfeld and Hollingshead (1993) argued that team integrative complexity may arise from the different perspectives that individual members bring to their teams, such as differences stemming from variation in training or education, organizational tenure, or age (see Carpenter, Geletkanycz, and Sanders [2004] and Williams and O'Reilly [1998] for reviews). Although diversity in perspectives may aid group differentiation, group integration may occur as a TMT recognizes the different perspectives and seeks to de-

velop a solution that reflects or integrates these perspectives.

Regardless of the route by which team-level integrative complexity is achieved, a host of studies exploring related constructs have suggested that team-level integrative complexity is positively associated with groups' tendencies to value and integrate multiple viewpoints, tendencies that in turn are related to improved decision-making processes (Dooley & Fryxell, 1999; Janis, 1972, 1989; Peterson, 1997; Peterson et al., 1998, 2003; Schwenk, 1990). Thus, although we have noted two possible pathways by which team integrative complexity may occur, we focus on the resulting team-level integrative complexity, viewing it as a relatively stable characteristic of a TMT.

In considering the link between TMT integrative complexity and corporate social performance, it is important to consider the strategic decision making process. From the stakeholder perspective, socially responsible TMTs must identify the issues faced by various stakeholders, identify possible solutions, consider the pros and cons and the trade-offs associated with each solution, and finally select and implement a solution that satisfies the needs of multiple stakeholders. We operate from the assumption that TMTs typically avoid purposely causing harm to any of their stakeholders and simultaneously consider actions that are both beneficial and harmful for stakeholders when developing their corporate social performance strategies (cf. Zhong, Ku, Lount, & Murnighan, 2010). Thus, relatively higher corporate social performance arises as TMTs not only find ways to satisfy the needs of multiple stakeholders, but also avoid harming any one particular group.

Given this view, we expect differences in corporate social performance to arise as a function of TMT integrative complexity. Recall that low-integrative-complexity individuals tend to act quickly on the basis of their instincts and believe that decision makers often make the mistake of continuing to gather data well beyond the point of diminishing returns (Tetlock, 2000). Thus, we might expect low-integrative-complexity TMTs to be likely to seek out information that indicates problems or concerns for a small set of stakeholders and focus on solving these problems. Because of their limited search, these TMTs may be unaware of emerging issues that other stakeholders face.

Additionally, even when these teams identify multiple stakeholder concerns, low-integrative-complexity TMTs will be hard-pressed to grapple with the inevitable trade-offs among stakeholders' issues (e.g., protecting the environment versus maintaining customer relations). In part, this in-

ability may occur because these team members are less likely to discuss divergent or conflicting views during decision making. TMTs low in integrative complexity may have trouble not only in the early stages of decision making related to identifying or discussing the issues faced by various stakeholders, but also in the later stages, as they may misevaluate the trade-offs associated with each solution. Taken together, our arguments suggest that TMTs with low integrative complexity will meet the needs of fewer stakeholders and that, therefore, their firms will exhibit lower overall corporate social performance.

In contrast, TMTs characterized by high levels of integrative complexity are likely to seek a variety of information and viewpoints in making strategic decisions. In addition to trying to learn as much as possible about the issues facing their various stakeholders, they will also seek to identify integrative solutions, or ways to simultaneously satisfy multiple stakeholder needs. High-integrative-complexity TMTs should be open to discussing and debating various stakeholder perspectives. Because these TMTs focus on integrating and attending to multiple stakeholder perspectives, they are likely to spend a great deal of time determining various solutions and weighing the pros and cons of each solution before they select a thoroughly researched strategy. In sum, because TMTs with high integrative complexity attend to a wide variety of information, they are likely to be concerned with balancing the needs of multiple stakeholders, and as such, their firms will have higher corporate social performance than will the firms of TMTs with low integrative complexity.

Formally, we predict:

Hypothesis 1. TMT integrative complexity is positively related to corporate social performance.

THE EFFECTS OF DECENTRALIZATION OF DECISION MAKING ON CORPORATE SOCIAL PERFORMANCE

The focus of this article to this point has been on the effect of TMT sociocognitive processes on corporate social performance. However, strategic leadership researchers have noted that decision making occurs in broader organizational and environmental contexts (e.g., Bommer, Grato, Gravander, & Tuttle, 1987; Finkelstein & Hambrick, 1996; Hambrick & Finkelstein, 1987). One organizational variable posited to influence decision making (through its effect on information flow) is decentralization (Bower, 1970; Miller, 1987).

Decentralization of decision making has been defined in multiple ways. For instance, decision making can be viewed as centralized when power is concentrated in the hands of a few individuals, regardless of their organizational level (Hage & Aiken, 1970). A more common view, however, takes organizational hierarchy into account. From this perspective, centralization occurs when decision-making power resides in the hands of a select few at the upper levels of an organization, whereas decentralization occurs when decision-making power involves individuals at various organizational levels (Steers, 1977). In other words, the more centralized the firm, the less top managers have delegated decision making (Wally & Baum, 1994). In this study, we adopt this hierarchical perspective.

Decentralization can be viewed as a polar continuum anchored at the low end by "very centralized" (i.e., low decentralization) and at the high end by "very decentralized." Researchers have argued that centralization is beneficial in integrating diverse information obtained from various organizational levels, which can improve decision making (Malone, 1997). Additionally, because information is relatively contained and easy to access, the decision process can be conducted with greater ease. Ease of decision making may occur because a centralized structure decreases time-consuming interactions. For example, because centralized decision making involves a small group of individuals who have access to the same information, there should be less conflict and need for consensus building within their organization, rendering an easier and faster decision process (Miller, 1987; Wally & Baum, 1994).

In centralized firms, top managers may rely on information gathered by employees from lower levels of the hierarchy to make decisions about corporate social performance. One potential problem with this structure is that employees who are responsible for gathering information are distanced and unmotivated to collect this information because they are far removed from the actual decision-making process and fail to see the outcomes of their information collection efforts (Aghion & Tirole, 1997). In other words, centralization may inhibit employees' sense of ownership, which may reduce their desire to engage in the corporate social performance strategic decision making process. For instance, employees may be unmotivated to obtain the perspectives of the stakeholders with whom they interact. Consequently, centralized TMTs may unknowingly ignore the concerns and issues of multiple stakeholders. To the extent that high corporate social performance is achieved when multiple stakeholder needs are met, this discussion sug-

gests that the firms of centralized TMTs will have lower overall corporate social performance.

An additional concern with centralized decision making is that as information moves up an organizational hierarchy, it may be subject to more distortion. Specifically, in centralized firms various levels of management must exchange and interpret information from lower organizational levels. Thus, the meaning of the information may be altered before it reaches the upper echelons of the organization. Moreover, cognitive barriers to pure information flow occur in centralized firms. For example, information may be condensed or simplified as it travels up the hierarchy. Finally, social barriers to pure information flow (e.g., power differences) may color the level of detail or the way in which information is communicated to the TMT (Conrad & Poole, 2004).

Collectively, employees' lack of motivation to gather information about stakeholders' needs as well as the distortion that occurs as information is passed up an organizational hierarchy has direct implications for corporate social performance. For instance, information on certain stakeholders' perspectives and interests may not be communicated or may be miscommunicated as it moves up the hierarchy. Once the information reaches the TMT, it may be distorted or incorrect, so that it is ultimately more difficult to ascertain or attend to the needs of multiple stakeholders. Centralized decision-making structures also suffer from information constraints, meaning that TMTs can consider only a limited amount of information (cf. March & Simon, 1958; Miller, 1987). For a large company, this means that information concerning various stakeholders may be filtered out before even reaching the TMT. These arguments imply that centralization of decision making leads to policies benefiting relatively few stakeholders, resulting in lower corporate social performance.

In contrast to highly centralized organizations, highly decentralized ones involve a greater number of individuals in decision making. In decentralized firms, employees and midlevel managers at various organizational levels seek out and act on information from their constituents. Employees within decentralized firms are likely to be motivated to collect information on the stakeholders with whom they interact because they exercise decision-making power and can more directly see the influence of their information gathering on stakeholder decisions. For example, some decentralized firms may form employee-based focus groups to determine how to best meet customers' needs. Other decentralized firms may give franchise owners discretion

in the implementation of regional promotions so that local customer needs can best be met.

In addition, because the decision makers themselves are more likely to gather information in these firms, there are fewer opportunities for this information to be altered. As such, decentralization allows greater access to unadulterated information from potentially otherwise unconnected stakeholders within and outside an organization, which ultimately allows those with decision-making power to understand the needs of their multiple stakeholders. Although the gathering and integration of this information may be more time consuming, by gaining access to information regarding a greater variety of stakeholders, firms' decision makers are more likely to make informed decisions, consider trade-offs, and satisfy the needs of multiple stakeholders with a comprehensive corporate social performance strategy.

Given the above discussion, we predict:

Hypothesis 2. Decentralization of decision making is positively related to corporate social performance.

JOINT EFFECTS OF INTEGRATIVE COMPLEXITY AND DECENTRALIZATION ON CORPORATE SOCIAL PERFORMANCE

Thus far, we have hypothesized that TMT integrative complexity and organizational decentralization have main effects on corporate social performance. But we see good grounds for hypothesizing that the two constructs have an interactive effect as well. Many strategic leadership theorists have noted that the values, personality, and cognitive styles that inform strategic decisions are also affected by the context in which they are made (e.g., Finkelstein & Hambrick, 1996; Wally & Baum, 1994). As such, the relative decentralization of decision making may qualify the effects of integrative complexity on corporate social performance. Specifically, we argue that decentralization of decision making may influence the effects of integrative complexity on corporate social performance, as decentralization of decision making affects the flow of information in a firm.

We expect decentralization to have the greatest benefit for TMTs with low integrative complexity. As previously stated, the members of low-integrative-complexity TMTs tend to shun information gathering and ignore environmental conditions (Miller & Toulouse, 1986). Though this approach may allow for faster decision making (Wally & Baum, 1994), it may not best address multiple stakeholder concerns—given their limited search

process, these TMTs may be unaware of the needs of multiple stakeholders. However, a more decentralized decision-making structure may act as a safeguard by ensuring that a range of viewpoints is brought to the attention of a low-integrative-complexity TMT. By accumulating and circulating information from various constituencies and parts of an organization, decentralization can push information regarding multiple stakeholders up to the TMT. This increase in the amount and type of information should enhance awareness of the needs of multiple stakeholders.

Members of these TMTs should consider not only a wider range of information on their stakeholders, but also a more diverse set of solutions and possibly integrative outcomes because of the dispersion of decision-making power. In decentralized firms, organization members outside the formal TMT share in decision making, and this should lower the possibility that “groupthink” (Janis, 1972) will adversely affect the corporate social performance initiatives of low-integrative-complexity TMTs.

In contrast, we expect high-integrative-complexity TMTs to achieve similar levels of corporate social performance regardless of the centralization or decentralization of the decision-making structures in which they operate. Recall that integrative complexity was hypothesized to enhance corporate social performance because TMTs with high integrative complexity should be predisposed to gathering and listening to different viewpoints. Moreover, TMTs high in integrative complexity should not only distinguish among these viewpoints, but also integrate them—that is, understand their relationships and generate creative solutions through which multiple stakeholders’ needs can be met. Because high-integrative-complexity TMTs are already accessing information on the needs of multiple stakeholders, the accumulation and circulation of information afforded by decentralization may provide no additional benefit. As such, high-integrative-complexity TMTs might be expected to perform equally well regardless of the centralization or decentralization of decision making.

From this discussion, we propose:

Hypothesis 3. Decentralization of decision making moderates the relationship between TMT integrative complexity and corporate social performance: The relationship is stronger under conditions of centralization. Firms with low-integrative-complexity TMTs realize higher levels of corporate social performance from greater decentralization of decision making

than do firms with high-integrative-complexity TMTs.

METHODS

Sample

The sample consisted of the TMTs of 61 publicly traded organizations that were originally part of a larger study examining the relationships among CEO characteristics, top management team processes, and firm performance during 1996–2002. We determined our sample using the following process: First, using the 2002 *Fortune* 500 list, we chose an initial sample by using the criterion that ten or more analysts from investment banking firms had followed the organizations throughout 1996–2002. This procedure yielded an initial list of approximately 300 firms. Second, we had research assistants who were blind to the study hypotheses narrow the list by searching for articles in the business press and industry journals (e.g., *BusinessWeek*, *Fortune*, *Forbes*, and *Sales and Marketing Management*). Specifically, they sought articles pertaining to these firms’ management styles as well as to how the TMTs made decisions on a broad range of strategic issues. They also determined which organizations were the subjects of at least ten articles of approximately 1,000 words during the period. Ultimately, this process resulted in a list of 65 firms. Third, all organizations needed to have data on their corporate social performance available for 1996–2005. Our final list contained 61 organizations representing a range of industries, including computer manufacturing, transportation, and retail, and they had an average of US\$38 billion in sales and 126,493 full-time employees. Examples of organizations in our sample include General Electric Company, Hewlett-Packard Company, Nike, and PepsiCo.

For each of the 61 TMTs, we collected the following data: first, information on TMT management strategies and decisions was gathered from the business press. Drawing on these articles, trained research assistants used a Q-sort methodology to describe the integrative complexity and organizational decentralization. Second, information on corporate social performance was gathered from the Kinder, Lydenberg, and Domini Socrates database. Data indicating firm industry and firm financial information were obtained from Compustat.

Measures

Independent variables: Integrative complexity and decentralization. To assess integrative complexity and decentralization of decision making,

we employed a Q-sort methodology. Q-sorts have been used in several organizationally relevant studies (e.g., O'Reilly, Chatman, & Caldwell, 1991; Peterson et al., 1998, 2003) to transform qualitative data into quantitative data, thereby providing both the benefits of case study (e.g., detailed data) and survey (e.g., rigor [Peterson, Owens, & Martorana, 1999]) methods. It is considered a useful analytic tool because it allows for comparison of different raters' group assessments (Tetlock, Peterson, McGuire, Chang, & Feld, 1992). This methodology is important because it permits researchers to unobtrusively glimpse into the processes, characteristics, behaviors, and structures of entities (e.g., individuals, teams, organizations) when direct access to participants is difficult or data sources restricted (Peterson et al., 1999).

Specifically, we used the Group Dynamics Q-sort (GDQ; Peterson et al., 1998), which consists of 100 items that describe an organization's TMT in terms of a wide variety of decision-making processes. Each item consists of two opposite statements presented on 2×3 cards, one statement at the top (the upper statement) and the other at the bottom (the lower statement). Raters physically sort these cards to place each item into one of nine categories ranging from 1, "upper statement is very characteristic of the group," to 9, "lower statement is very characteristic of the group." Because the GDQ follows a forced distribution, only a certain number of items can be placed into each of the nine categories; specifically, fewer can be placed at the extremes and more can be placed in the center categories, which results in a normal distribution. As Tetlock and colleagues wrote, "Because it limits the number of items per scale value category, the forced-distribution Q-sort puts pressure on judges to make frequent comparisons of the relative descriptive appropriateness of items. It is possible to highlight only so many items in the 'extremely characteristic' categories" (1992: 409). Thus, raters are forced to select the Q-sort statements that are most characteristic of a TMT, which consequently increases interrater reliability and the predictive power of Q-sorts compared to standard scale-based measurements.

Ultimately, the goal of GDQ use is to construct "mesolevel impressions of the group . . . being assessed. This is distinct from individual-level behavioral (e.g., Bales, 1950, 1958) coding that builds group-level constructs statistically from behaviors observed at the individual level" (Peterson et al., 1999: 110). Reflecting this meso level of analysis, GDQ statements are focused on a team rather than its individual members. A TMT-level assessment,

as opposed to an aggregation of individual executives' scores, is the result.

We assessed TMT integrative complexity through the GDQ measure of intellectual flexibility, a construct analogous to integrative complexity and defined as "seeing problems in multidimensional ways and changing one's mind in response to new evidence" (Peterson et al., 1998: 277). The intellectual flexibility dimension comprises 13 items that tap the evaluative differentiation and conceptual integration dimensions of integrative complexity. Two sample items for intellectual flexibility are as follows:

Upper statement: "The group subscribes to a rigid, dichotomous view of the world (i.e., there are good guys and bad guys and nothing in between)."

vs.

Lower statement: "The group has a flexible multidimensional world view (i.e., good guys are not always good, bad guys are not always bad, and reasonable people can often disagree over what counts as good or bad)."

and

Upper statement: "The group assumes that there are clear right and wrong, good and bad ways of making decisions (i.e., the process by which decisions are made is rigid)."

vs.

Lower statement: "The group assumes that most policy decisions require a fluid process, weighing competing values and making subtle trade-off judgments (i.e., decisions are made in many ways depending on the circumstances)."

The GDQ measure of decentralization focuses on the degree to which employees at various organizational levels have decision-making power and comprises six items. Two sample items are:

Upper statement: "The group believes in a top-down, pyramidal, and control-oriented style of management (i.e., lots of rules, checks, and surveillance)."

vs.

Lower statement: "The group believes in a bottom-up style of management that encourages initiative and self-control among employees with minimal reliance on formal rules and surveillance."

and

Upper statement: "The group deeply dislikes delegating power and sharing responsibility (i.e., control must be all or nothing)."

vs.

Lower statement: "The group appreciates the value in delegating power and living with fluid, power-sharing relationships."

For our specific GDQ procedure, we first collected qualitative information from the business and industry press. Specifically, we compiled detailed packets of qualitative information by searching general business periodicals such as *BusinessWeek*, *Fortune*, and *Forbes* and industry journals such as *Chemical Week* and *Sales and Marketing Management* for articles that discussed a sampled TMT's management philosophy as well as how decisions are made within the TMT and wider organization. In line with previous research, a TMT was always defined as a CEO and those senior executives who reported directly to him or her (Carpenter et al., 2004). To ensure that these articles provided a detailed perspective,¹ we required that they be at least 1,000 words long. Moreover, packets, which were all the articles about a given TMT, were required to be no fewer than 20 pages but no more than 50 pages (a procedure adapted from Peterson et al. [2003]).² Finally, in the rare case in which a CEO transition occurred during our time period, we created a packet for the CEO and TMT with the longest tenure between 1996 and 2002. From this process, we obtained "GDQ packets" that focused on team-level descriptions of each TMT.

Having gathered qualitative information for the 61 organizations, we sought to quantify it by having research assistants, who were blind to the study hypotheses, follow the sorting procedure described

above. They were trained in three sessions on the Q-sort methodology and practiced Q-sorts on two sample TMTs. They received standard procedural instructions for the methodology, which are presented in Appendix A. In brief, research assistants were told that the Q-sort aimed to describe TMTs' management styles and group processes. They were given the deck of 100 GDQ cards and were told that each card had two statements, one placed at the top of the card (i.e., upper statement) and one placed at the bottom of the card (i.e., lower statement). They were also told that the upper and lower statements were polar opposites and that they would be asked to identify the extent to which one or the other of the statements characterized each TMT.

After the research assistants reviewed a GDQ packet, we instructed the assistants to sort their GDQ cards into three stacks: an upper stack containing the cards on which the upper statement was more characteristic of the TMT under assessment (category 1); a lower stack, with the cards on which the lower statement was more characteristic of the TMT (category 9); and a middle stack containing the remainder of the cards, for which the packet contained conflicting information or no evidence (category 5). Iterations of this sorting process into more refined stacks occurred until the forced distributions into the nine categories were met. During these training sessions, it was also underscored that in assessing a TMT they should draw only upon the knowledge provided in the packet; in other words, any prior or outside knowledge about a focal firm should be disregarded.

For each organization in our sample, at least two research assistants independently reviewed the qualitative packets of articles about its TMT and then individually rated the TMT on the 100 items. Following previous studies using the GDQ, we evaluated interrater agreement using Cronbach's coefficient alpha (e.g., Peterson, 1997). Interrater reliability for our sample of 61 organizations ranged from .71 to .94 (average $\alpha = .79$, s.d. = .06), so we averaged the research assistants' scores to create one Q-sort per TMT. From these averaged Q-sorts, we determined that the individual scales for intellectual flexibility and decentralization were adequately reliable ($\alpha = .74$ and $.76$, respectively). Appendix A presents excerpts from the GDQ packets illustrating TMT integrative complexity and decentralization.

Dependent variable: Corporate social performance. Our measure of corporate social performance was obtained from Kinder, Lydenberg, Domini, and Company (KLD), a financial advisory firm that specializes in assessing corporate social

¹ To ensure the validity and reliability of the articles as a means to capture the TMTs, we had two research assistants code a random subset of the sample ($n = 8$ [13%]). These coders were trained to identify both general words or phrases related to a firm's TMT (e.g., "management team," "top managers," "top executives," "executive vice presidents") as well as the specific mentions of or quotes from TMT members. Over our study period (1996–2002), the subset of companies examined had, on average, 9.50 TMT members. We found that 5.25 TMT members, or 55.16 percent (s.d. = 10.30%, minimum = 45.45%, maximum = 75.00%), were mentioned by name in the packets, and 4.25 TMT members, or 44.74 percent (s.d. = 18.99%, minimum = 11.11%, maximum = 75.00%), were specifically quoted. The titles of TMT members mentioned or quoted in the packets included CEOs, chief financial officers, chief operating officers, and vice presidents of various divisions (e.g., marketing, consumers, business, R&D).

² A subset of 30 randomly selected GDQ packets had, on average, 1,983.48 (s.d. = 1,312.59) words per article and an average of 16,793.50 (s.d. = 4,967.12) words per packet.

responsibility. Prior to 2002, the KLD ratings contained data from 650 companies listed on the Standard & Poor's (S&P) 500 or Domini 400 Social Indexes as of August of each year. In 2002, the database was expanded to cover over 1,000 companies listed on the S&P 500, Domini 400 Social Index, Russell 1,000, or KLD Large Cap Social Indexes (KLD Research & Analytics, 2003). KLD ratings have been used extensively in research examining corporate social performance (e.g., Agle et al., 1999; Berman, Wicks, Kotha, & Jones, 1999; Deckop et al., 2006; Van der Laan, Van Ees, & Van Witteloostuijn, 2008; Waddock & Graves, 1997) and are considered to be a comprehensive measure of multiple stakeholder positions (Agle et al., 1999). Moreover, although other measures of corporate social performance are commonly criticized for being biased toward particular interests (e.g., Entine, 2003), the KLD ratings are based on a number of sources, including reports from company data, research partners, articles ranking companies on particular issues (e.g., *Working Mother Magazine's* "100 Best Companies to Work For"), public documents such as Securities and Exchange Commission filings, and information from government and nongovernmental organizations.

KLD scores are based on performance on seven categories of stakeholder service (community relations, diversity, employee relations, environment, product, corporate governance, and human rights), each composed of several subindicators. For each subindicator, an organization receives a 1 or 0 for the presence (absence) of strength in that domain. Organizations are also assigned a rating of 1 or 0 for the presence of concern related to the subindicator.

Debate exists in the corporate social performance literature as to whether KLD strengths and concerns should be combined to create an overall score and as to which of the seven stakeholder dimensions should be included in composite measures of corporate social performance. We used an aggregated score, for which we subtracted total concerns on all seven stakeholder service category indicators from total strengths on all seven stakeholder service category indicators, for two primary reasons. First, we argue that in developing a corporate social performance strategy, TMTs simultaneously strive to achieve a balance between doing well and minimizing harm. To capture this comprehensive approach to corporate social performance, we could not focus solely on strengths or concerns individually, but rather, needed to examine net CSP, which is achieved through consideration of what a firm does well, adjusting for what it does less well.

Operationalizing this theoretical perspective required subtracting concerns from strengths.³

Second, an aggregated form of the KLD indicators has commonly been utilized in corporate social performance research (e.g., Bouquet & Deutsch, 2008; David, Bloom, & Hillman, 2007; Deckop et al., 2006; Graves & Waddock, 1994; Ruf et al., 2001; Thomas & Simerly, 1995; Van der Laan et al., 2008). Although some researchers have operationalized corporate social performance as composed of all seven KLD indicators (e.g., Van der Laan et al., 2008), other researchers have operationalized it as a subset of the KLD indicators.⁴ Because our predic-

³ Recent research in a related domain, moral self-regulation, has provided some support for this argument. Sachdeva, Iliev, and Medin (2009) found that people adjust their moral behavior depending on whether their moral self-worth is threatened or inflated. In particular, they found that when people have recently engaged in morally questionable behavior, and thus their moral self-worth is threatened, they are more likely to subsequently engage in ethical or prosocial behavior (a phenomenon termed "moral cleansing" [e.g., Carlsmith & Gross, 1969; Tetlock, Kristel, Elson, Green, & Lerner, 2000; Zhong & Liljenquist, 2006]). On the other hand, when people have recently engaged in prosocial behavior, and thus their moral self-worth is inflated, they are more likely to subsequently experience a decline in moral behavior or even engage in unethical behavior (termed "moral licensing" [e.g., Jordan, Mullen, & Murnighan, 2010; Monin & Miller, 2001]). Zhong and colleagues (2010) found that individuals tended to make ethical choices after making an unethical first choice, whereas they made less ethical choices after making an ethical first choice. In other words, engaging in good behavior subsequently led to bad behavior, and engaging in bad behavior subsequently led to good behavior. This research suggests that ethical behavior is a balancing act between wanting to be good but not wanting to pay too high a cost to be good (Eisenberg & Shell, 1986). Although this research focused on individual-level action, these findings may also apply to TMT decision making. We do not wish to argue that when firms do well, they are inclined to engage in harmful behaviors as well or vice versa, but we draw on this research to suggest that one must consider strengths in conjunction with concerns; separating the two constructs does not provide a true reflection of corporate social performance behavior.

⁴ Five of these indicators comprise a common stakeholder management measure: product, employees, diversity, community, and environment (e.g., Hillman & Keim, 2001); however, two indicators, human rights and corporate governance, are less frequently considered. One reason that researchers use these two less frequently may be that in 2002 KLD changed how they were represented. Prior to 2002, some subindicators of human rights were included in the indicator "non-US operations" whereas others did not exist, and subindicators of corporate gov-

tions for the effects of integrative complexity and decentralization did not suggest that any one stakeholder would be more important than another, we used all seven stakeholder service category indicators in constructing our KLD aggregate score.

Following Deckop and colleagues (2006), after aggregating to obtain a total strength and total concern score for each indicator, we then calculated the indicator's net score by subtracting total concerns from total strengths. Finally, we averaged the seven net scores to obtain an overall corporate social performance score for a firm, capturing the degree to which it met the needs of a wide range of stakeholders. Since past research on corporate social performance has shown significant industry effects (e.g., Waddock & Graves, 1997), following Agle and colleagues (1999) and Waldman et al. (2006) we controlled for a firm's industry by subtracting the industry mean from the firm's overall score. The average overall corporate social performance score adjusted for industry was .23 (s.d. = .54).

We used data from 2003 to 2005 to cover years after the period represented by the data for our independent variables. Following Agle and colleagues (1999), we smoothed the data by averaging the three years.

Control variables. Previous research on corporate social performance has shown that it is related to firm financial performance (e.g., return on assets, sales, or equity; see Margolis and Walsh [2003] for a review). Thus, we controlled for industry-adjusted firm financial performance using ROA (Agle et al., 1999) averaged over the period that a firm's GDQ packet of articles covered. Additionally, following David and colleagues (2007) and Waldman et al. (2006), we controlled for industry-adjusted corporate social performance over that period. One- to five-year time lags for both industry-adjusted firm financial performance and industry-

ernance were included in the indicator "other." Some studies drawing on KLD data prior to 2002 used these alternative categories of "other" or "non-US operations" (e.g., Waldman et al., 2006), but many corporate social performance studies have not (e.g., Hillman & Keim, 2001). Our dependent variable is based on more recent (2003–05) data, allowing us the option of including these two indicators. Thus, our operationalization of corporate social performance includes human rights and corporate governance, both of which relate to "broad stakeholders" (Van der Laan et al., 2008). The former includes attention to issues such as labor relations (e.g., the labor rights subindicator, which was included in 2002), and the latter includes attention to investor relations.

adjusted corporate social performance indicated the same pattern of statistically significant results.

Researchers have also noted the possible effects of firm size, which may influence the importance of stakeholder relations as well as organizational visibility, thereby encouraging larger firms to engage in socially responsible behavior (Hillman & Keim, 2001; Orlitzky, 2001; Wu, 2006). Therefore, we operationalized firm size as the log of a firm's average number of employees over the period that the firm's GDQ packet covered (e.g., Deckop et al., 2006; Finkelstein & Hambrick, 1990; Graves & Waddock, 1994; Waddock & Graves, 1997), obtaining these data from Compustat. Finally, because our GDQ packets varied in the number of months for which the subject firms were adequately covered in the media, we controlled for the length of time (in months, logged) for which each firm's Q-sort period lasted.

RESULTS

Table 1 presents the means, standard deviations, and correlations among the study variables. Because our predictor variables, integrative complexity and decentralization, were significantly correlated ($r = .47, p < .001$), we examined the variance inflation factor values to determine if multicollinearity existed in these data. The highest observed variance inflation factor value in our study variables was 1.37, which suggests that multicollinearity was not a concern since this value is well below the conventional cutoff of 10.00 (Neter, Wasserman, & Kutner, 1989).

To test Hypotheses 1, 2 and 3, we regressed corporate social performance on the control variables, integrative complexity, decentralization, and their interaction term. Table 2 shows the results of these regressions. In model 1, the base model, we regressed corporate social performance on only our control variables: the length of the period covered by the articles in a firm's GDQ packet, prior firm financial performance, prior firm corporate social performance, and firm size. The overall model results indicate that the control variables explain approximately 58 percent of the variance in corporate social performance.

In model 2, we tested our prediction that firms with TMTs characterized by higher integrative complexity would have higher corporate social performance than those characterized by lower integrative complexity (Hypothesis 1). As seen in step 2 of model 2, integrative complexity has a significant, positive effect on corporate social performance ($b = .28, p < .001$). This result lends initial support for Hypothesis 1. This step explains approximately

TABLE 1
Descriptive Statistics and Correlations^a

Variables ^b	Minimum	Maximum	Mean	s.d.	1	2	3	4	5	6
1. GDQ packet time period	1.79	4.32	3.55	0.57						
2. Firm size	8.37	14.11	11.25	1.09	-.09					
3. Prior corporate social performance	-0.94	1.21	0.10	0.48	-.16	-.04				
4. Prior return on assets	-71.46	19.06	-0.08	11.13	.31**	.01	-.11			
5. Integrative complexity	4.54	7.04	6.06	0.61	.11	.16	.20	-.07		
6. Decentralization	2.39	7.67	5.38	1.08	.16	.12	.15	.09	.47**	
7. Overall corporate social performance (2003–05)	-0.83	1.34	0.23	0.54	-.07	-.04	.75**	.05	.42**	.42**

^a $n = 61$.

^b The GDQ period is logged months. Firm size is the logged number of employees. Prior corporate social performance and prior ROA are averaged over the GDQ packet period.

** $p \leq .01$

9 percent of the incremental variance in corporate social performance. Overall, model 2 yields a substantial increase in explained variance ($R^2 = .67, p < .001$).

In Hypothesis 2, we predict that decentralized firms will have higher corporate social performance than will centralized firms. In initial support of this hypothesis, in model 3, we regressed corporate social performance on the control variables and decentralization. As demonstrated in step 2 of model 3, decentralization has a significant, positive effect on corporate social performance ($b = .16, p < .001$). This step explains ap-

proximately 9 percent of the incremental variance in corporate social performance. This model is also an improvement over the base model, as indicated by the substantial increment in R^2 , to .67 ($p < .001$).

In model 4, we further test of Hypotheses 1 and 2 by examining integrative complexity and decentralization of decision making concurrently. Step 2 of model 4 shows that integrative complexity has a significant, positive effect on corporate social performance ($b = .19, p < .05$), as does decentralization ($b = .11, p = .01$). Model 4 thus suggests that both integrative complexity and decentralization are important to corporate social performance. This

TABLE 2
Hierarchical Regression Results for Overall Corporate Social Performance Regressed on Integrative Complexity and Decentralization^a

Variables ^b	Overall Corporate Social Performance 2003–05				
	Model 1: Base Model	Model 2: TMT Integrative Complexity	Model 3: TMT Decentralization	Model 4: Full Main Effects Model	Model 5: Full Model with Interactions
Step 1: Controls					
GDQ packet time period	.01 (.09)	-.05 (.08)	-.05 (.08)	-.07 (.08)	-.07 (.07)
Firm size	-.01 (.04)	-.03 (.04)	-.03 (.04)	-.04 (.04)	-.04 (.04)
Prior corporate social performance	.86** (.10)	.79** (.09)	.80** (.09)	.76** (.09)	.73** (.09)
Prior return on assets	.01 (.00)	.01* (.00)	.01 (.00)	.01 [†] (.00)	.01* (.00)
Step 2: Main effects					
Integrative complexity		.28** (.07)		.19* (.08)	.74** (.26)
Decentralization			.16** (.04)	.11** (.04)	.79** (.30)
Step 3: Interaction					
Integrative complexity × decentralization					-.11* (.05)
Overall model R^2	.58	.67	.67	.71	.73
Adjusted R^2	.55	.64	.64	.67	.70
Change in R^2		.09	.09	.13	.03
F for change		14.17**	15.79**	11.51**	5.14*
Overall F	19.37**	21.98**	22.75**	21.59**	20.66**

^a Values shown are the unstandardized regression coefficients with standard errors in parentheses. $n = 61$.

^b The GDQ period is in logged months. Firm size is the logged number of employees. Prior social performance and prior ROA are averaged over the GDQ packet period.

[†] $p \leq .10$

* $p \leq .05$

** $p \leq .01$

Two-tailed tests.

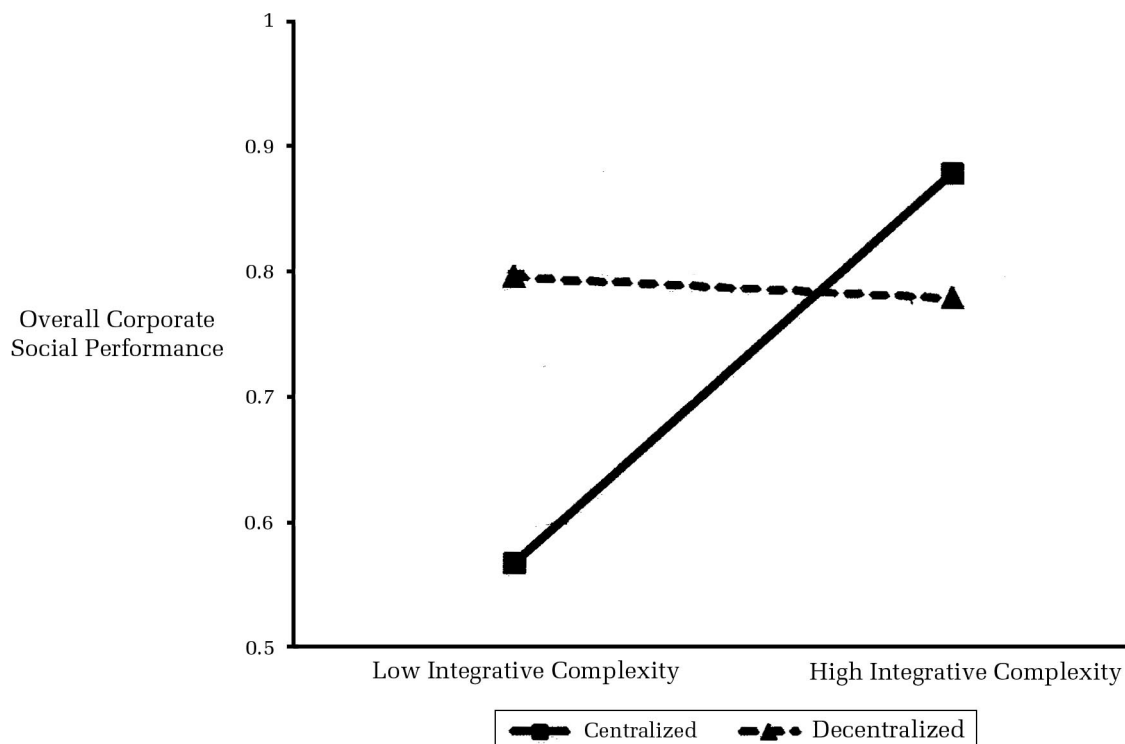
step explains approximately 13 percent of the incremental variance in corporate social performance. Moreover, this model is an improvement over both models 2 and 3, yielding an R^2 of .71 ($p < .001$).

In model 5, we test the prediction that decentralization moderates the relationship between TMT integrative complexity and corporate social performance in such a way that firms with low-integrative-complexity TMTs realize higher levels of corporate social performance under conditions of decentralization than do firms with high-integrative-complexity TMTs (Hypothesis 3). In support of Hypothesis 3, the interaction between integrative complexity and decentralization is significant ($b = -.11, p < .05$). Simple slope analyses (Aiken & West, 1991) confirmed that corporate social performance is positively related to integrative complexity among centralized firms ($b = .26, p < .01$) but unrelated to integrative complexity among decentralized firms ($b = .02, n.s.$). Figure 1 depicts these simple effects. This step explains 3 percent of the incremental variance in corporate social performance and yields an R^2 of .73 ($p < .05$).

Robustness Testing

As previously noted, an ongoing discussion in the relevant literature centers on how corporate social performance should be measured (e.g., Entine, 2003; Hillman & Keim, 2001). Multiple measures have been proposed and used in previous research (e.g., Deckop et al., 2006; Godfrey, Merrill, & Hansen, 2009; Graves & Waddock, 1994; Hillman & Keim, 2001; Thomas & Simerly, 1995; Van der Laan et al., 2008). Thus, to assess the robustness of our results, we tested our hypotheses using alternative measures of corporate social performance. First, although some researchers have operationalized the construct as composed of all seven KLD indicators (e.g., Van der Laan et al., 2008), others have operationalized it as a subset of the KLD indicators. We replicated our results using another commonly used subset of the KLD indicators, Hillman and Keim's (2001) measure of stakeholder management, which focuses on firms' primary stakeholders and includes five of the KLD indicators (product, employees, environment, diversity, and community). Given our focus on TMTs' ability to manage the needs of multiple stakeholders, this

FIGURE 1
Effects of Decentralization on Integrative Complexity and Corporate Social Performance Relationship



subset is also a plausible measure of our dependent variable. When using Hillman and Keim's measure of stakeholder management to test our study hypotheses, we found the same pattern of statistically significant results, as Table 3 shows.

Second, although an aggregated form of the KLD that subtracts concerns from strengths has commonly been utilized in corporate social performance research (e.g., Bouquet & Deutsch, 2008; Deckop et al., 2006; Graves & Waddock, 1994; Hillman & Keim, 2001; David et al., 2007; Ruf et al., 2001; Thomas & Simerly, 1995), some researchers have suggested that strengths and concerns should be examined separately (e.g., Kacperczyk, 2009; Mattingly & Berman, 2006). Thus, we conducted additional robustness checks by separately examining an aggregation of the seven strength indicators and an aggregation of the seven concern indicators.

Results indicated that integrative complexity is positively related to KLD strengths, supporting Hypothesis 1, and that decentralization is negatively related to KLD concerns, supporting Hypothesis 2. Moreover, we find that decentralization moderates the relationship between integrative complexity and KLD concerns: firms with low-integrative-complexity TMTs realize higher levels of corporate social performance from greater decentralization of

decision making than do firms with high-integrative-complexity TMTs. Specifically, firms with low-integrative-complexity TMTs have fewer corporate social performance concerns when there is greater decentralization of decision making, whereas the level of decentralization does not affect corporate social performance concerns in firms with high-integrative-complexity TMTs. Thus, we find support for Hypothesis 3 when examining KLD concerns. Although integrative complexity and decentralization have differing effects on KLD strength indicators and KLD concern indicators, cumulatively we find support for all three hypotheses when examining these strengths and concerns separately.

Because we acknowledge that using prior levels of corporate social performance as a control variable raises potential concerns about model endogeneity, in a final robustness check we estimated a two-stage instrumental variable model (Greene, 2008). Given the link between firm risk and corporate social performance (see Orlitzky & Benjamin [2001] for a review), we instrumented prior corporate social performance averaged over the period covered by the material in a firm's GDQ packet with a commonly used measure of firm risk, the debt-to-equity ratio (e.g., Pava & Krausz, 1995; Simerly, 1995), which was also averaged over the GDQ

TABLE 3
Hierarchical Regression Results for the Stakeholder Management Measure Regressed on Integrative Complexity and Decentralization^a

Variables ^b	Stakeholder Management Measure of Corporate Social Performance 2003–05				
	Model 1: Base Model	Model 2: TMT Integrative Complexity	Model 3: TMT Decentralization	Model 4: Full Main Effects Model	Model 5: Full Model with Interactions
Step 1: Controls					
GDQ packet time period	.03 (.11)	-.05 (.11)	-.03 (.11)	-.07 (.10)	-.08 (.10)
Firm size	-.04 (.06)	-.08 (.05)	-.07 (.05)	-.08 (.05)	-.07 (.05)
Prior stakeholder management measure of corporate social performance	.92** (.10)	.84** (.10)	.86** (.09)	.82** (.09)	.80** (.09)
Prior return on assets	.01 (.01)	.01 [†] (.01)	.01 (.01)	.01 (.01)	.01 [†] (.01)
Step 2: Main effects					
Integrative complexity		.33** (.10)		.24* (.11)	1.03** (.34)
Decentralization			.18** (.05)	.12* (.06)	1.08** (.40)
Step 3: Interaction					
Integrative complexity × decentralization					-.16* (.07)
Overall model <i>R</i> ²	.61	.68	.67	.70	.73
Adjusted <i>R</i> ²	.58	.65	.64	.67	.69
Change in <i>R</i> ²		.07	.06	.09	.03
<i>F</i> for change		11.52**	10.79**	8.32**	5.82*
Overall <i>F</i>	21.70**	22.93**	22.55**	21.02**	20.46**

^a Values shown are the unstandardized regression coefficients with standard errors in parentheses. *n* = 61.

^b The GDQ period is in logged months. Firm size is the logged number of employees. Prior social performance and prior ROA are averaged over the GDQ packet period.

[†] *p* ≤ .10

* *p* ≤ .05

** *p* ≤ .01

Two-tailed tests.

packet time period and obtained from Compustat. In the first step of our model, we regressed prior corporate social performance on our controls, firm risk, integrative complexity, decentralization, and the interaction of the latter two variables. In the second step, we regressed corporate social performance on our controls, firm risk, integrative complexity, decentralization, and the interaction. This analysis yielded the same significant conclusions as ordinary least squares regressions using prior corporate social performance. These results are available upon request.

DISCUSSION

Understanding the impact of strategic leaders on corporate social performance requires taking into account both the sociocognitive factors within TMTs and their firms' broader organizational decision-making structures. We demonstrated that integrative complexity and decentralization are important in determining how top leaders gather and process information from various stakeholders. Our findings indicate that firms with TMTs characterized by higher integrative complexity have higher corporate social performance than do those characterized by lower levels of integrative complexity. Additionally, we find that firms that are more decentralized have higher corporate social performance than do those that are more centralized. Finally, recognizing that the structures in which managers operate affect integrative complexity, we examined the moderating role of decentralization and found that firms with low-integrative-complexity TMTs had higher corporate social performance under more decentralized structures, whereas decentralization did not affect firms with high-integrative-complexity TMTs. Additional robustness checks using alternative measures of corporate social performance, such as Hillman and Keim's (2001) stakeholder management measure, independent examinations of aggregated stakeholder strengths and concerns as indexed by Kinder, Lydenberg, Domini, and alternative controls lend further confidence to these findings, as the pattern of results remained statistically significant.

Our results have several implications for the corporate social performance and strategic leadership literatures. With regard to the first, previous research has shown a positive relationship between corporate social performance and financial performance (Orlitzky, Schmidt, & Rynes, 2003). As such, corporate social performance researchers have been eager to identify the construct's antecedents. Although some research has attended to the psychological variables influencing the effect of CEOs on

corporate social performance (e.g., values), to our knowledge no research has examined the effect of top leaders' sociocognitive processes on corporate social performance. The positive relationship between integrative complexity and corporate social performance identified in this article suggests that the extent to which leaders seek out information from divergent sources and the ways in which they process and integrate that information can have beneficial effects for corporate social performance.

Further, although research on strategic leadership has acknowledged the role of characteristics of a decision-making context (e.g., firm size, industry), prior research has primarily controlled for these effects rather than examined how they moderate the relationship between CEO and corporate social performance. In this article, we address this gap by examining the main and moderating effects of decentralization. As we demonstrate, these decision-making structures influence how decision makers' sociocognitive propensities, such as integrative complexity, affect corporate social performance.

Finally, we contribute to this literature by examining the decision-making processes of TMTs using a novel, noninvasive methodology. Although it is widely acknowledged that TMTs play a large role in strategic decision making (e.g., Finkelstein & Hambrick, 1996), assessing top leaders' decision-making processes is difficult. Top leaders do not have the time to subject themselves to batteries of psychological tests or long-term observation (e.g., Hambrick, 2007; Hermann, 1999). To address these difficulties, we employed a methodology that transforms qualitative information into quantitative data and allows comparisons across time and raters. This methodology is important because it permits unobtrusively glimpsing into the decision-making processes and structures of a large number of firms. Additionally, each TMT is assessed by multiple raters who base their assessments on highly detailed archival information obtained from diverse sources, rather than by firm insiders. Thus, there is less potential for the socially desirable responses that might be a concern in survey research conducted on top managers. Further, it allows us to take the next step in strategic leadership research and examine inside the black box of the relationship between TMTs and firm outcomes (e.g., Hambrick, 2007). In constructing decision-making profiles on 61 firms, from which we measured TMT integrative complexity and decentralization of decision making, we have accumulated the largest database to date using this particular methodology.

Beyond our contributions to the corporate social performance and strategic leadership literatures,

our research also has implications for research on integrative complexity and decentralization. We extend the small body of research on integrative complexity at the team level to demonstrate its effects in business organizations. Constructs similar to integrative complexity have been examined in strategic leadership research (Finkelstein & Hambrick, 1996; Wally & Baum, 1994) but appear to have fallen by the wayside; given the results of the present study, reincorporating integrative complexity into organizational behavior and strategy research is warranted. Furthermore, in examining the interaction between top managers' sociocognitive processes and organizational structure, we attempt to address a recent call to consider the structural factors that influence strategic choice (Carpenter et al., 2004). Specifically, we demonstrate the substitution effect of decentralization for TMTs with low integrative complexity, which underscores the importance of examining the structural influences under which TMTs operate.

Our results have practical implications as well. The finding that the structure of decision making can affect the relationship between cognitive style and corporate social performance suggests that managers in centralized organizations may want to heed Suedfeld's (1992) advice and adjust their integrative complexity if necessary. Although we view integrative complexity as a relatively stable TMT characteristic, we also believe that organizations can take steps to increase it. First, CEOs can select TMT members whose backgrounds and experiences will collectively facilitate high integrative complexity. For instance, in centralized organizations, CEOs should foster TMT integrative complexity by recruiting members with diverse perspectives and backgrounds (Gruenfeld & Hollingshead, 1993) stemming from differences in training or education, organizational tenure, or age.

Our findings also have practical implications for training and reward structures. CEOs should train and reward team members to both attend to conflicting viewpoints and consider the broader environment when making decisions. Therefore, CEOs should develop norms within their TMTs that encourage open-mindedness, dissent, gathering and considering multiple perspectives, and integrating information from a variety of stakeholders. In support of these suggestions, Waldman et al. (2006) found that intellectually stimulating CEOs, who encouraged employees to question their assumptions and perspectives, were positively associated with strategic corporate social responsibility.

Finally, to the extent that a TMT exhibits relatively low integrative complexity, executives might do well to try to make their organizations more

decentralized. Doing so will give them access to more information that will aid them in better meeting the needs of multiple stakeholders and increase overall corporate social performance.

Limitations and Future Research

These contributions and practical implications should be viewed in light of the study's limitations. Given the difficulty of obtaining direct access to top executives who do not have the time to complete numerous psychological tests or be observed for extended periods of time (Hermann, 1999), we opted to utilize the GDQ. Doing so afforded us some of the qualitative benefits of the case study approach, such as the ability to ask an array of detailed questions that capture a group dynamically, while still providing the ability to quantitatively compare groups that one might achieve via surveys (Peterson et al., 1999). However, this methodology is not without its limitations.

First, our study is subject to sample restrictions. As described in the methods section, completing the GDQ on any given firm requires substantial information regarding TMTs' decision making. To select our sample in a systematic fashion, we required that the firms be covered by ten or more analysts and have ten articles a minimum of 1,000 words long; the latter criterion was based on previous work using the GDQ (Peterson et al., 1998, 2003; Tetlock et al., 1992). The resulting firms that met these criteria were large American firms that received extensive coverage in the business press. Our results for these firms are important in their own right, yet caution should be taken in generalizing these results to other types of firms, such as smaller organizations or private companies.

An additional concern with the GDQ methodology is that it utilizes ipsative scoring, which requires raters to sort items into a forced distribution (i.e., only a certain number of items can be placed into a set number of categories). Several issues are inherent in the use of forced distribution methodologies such as the Q-sort. One potential limitation is that the scoring of different dimensions of the Q-sort can change depending on the other items that are included. Thus, it was important for us to employ an established Q-sort procedure, the GDQ, in which the items are standardized and have been established in the academic literature. An additional consequence of the ipsative nature of the GDQ is that it limits the comparisons and arguments that we can make. Specifically, although the GDQ methodology is appropriate for testing relative differences among firms with regard to a par-

ticular TMT characteristic (e.g., high or low decentralization), it cannot be used to test absolute differences between various dimensions. In light of these limitations, it is important for future research to replicate and extend these results using other methods. For instance, integrative complexity has commonly been measured through content analysis of interviews, speeches, and letters (e.g., Baker-Brown, Ballard, Bluck, de Vries, Suedfeld, & Tetlock, 1992; Liht, Suedfeld, & Krawczyk, 2005; Suedfeld et al., 1986; Tetlock & Boettger, 1989; Winter, 2007), and convergence between our GDQ measure of integrative complexity and one based on content analysis would lend further confidence in our results.

Third, our data were drawn from historical accounts from the business press and, as such, may have been influenced by the journalists' biases. Further, although we instructed raters to put aside their outside knowledge, the firms in this study do tend to captivate the public eye, and raters may have unintentionally drawn on this knowledge in their assessments. Our use of multiple coders and the wide range of industry sources minimize the impact of any individual bias, but we cannot fully isolate personal prejudice or bias in our data.

Finally, by virtue of the way in which the GDQ is constructed, items describe the decision-making style of a team as a whole, as opposed to the decision-making styles of individual members. For instance, we cannot distinguish between TMTs that have average levels of integrative complexity because several TMT members are integratively complex while other members are less complex, and teams that have average complexity because all their members have average integrative complexity. Further, given that past research has suggested that the personality and leadership style of a firm's CEO influence TMT dynamics, which in turn affect firm outcomes (Peterson et al., 2003), it is possible that aspects of a CEO's personality could have a particular influence on TMT integrative complexity. Because little research exists examining integrative complexity at the team level, we began by looking at the averages obtained through the GDQ, but future research should examine the role of individual TMT members to understand how differences in the level of integrative complexity a team has achieved affect firm outcomes.

Our research also speaks to the debate regarding measurement of corporate social performance. We focused on an aggregated measure, arguing that TMTs simultaneously strive to achieve a balance between doing well and minimizing harm in relation to a variety of stakeholders. We operationalized this measure of corporate social performance

by aggregating the seven KLD indicators and creating a composite score of what a firm does well and also adjusting for what it does less well. However, numerous studies have approached both the conceptualization and measurement of corporate social performance in different ways (e.g., Deckop et al., 2006; Godfrey et al., 2009; Graves & Waddock, 1994; Hillman & Keim, 2001; Thomas & Simerly, 1995; Van der Laan et al., 2008). Hence, we conducted several robustness checks by testing our model using the commonly utilized Hillman and Keim (2001) stakeholder management measure, which contains five KLD indicators, and by examining KLD strengths and concerns. Although we found the same pattern of statistically significant results when using the stakeholder management measure, given that different measures focus on different KLD indicators, future research would do well to aim for greater comparability in corporate social performance research, whether it be through the use of such measures as the KLD or alternative data.

Future research should also address the differing effects of TMTs on proactive behavior directed toward some stakeholders and wrongdoing directed toward others. Interestingly, by examining KLD strengths and concerns separately, we found that integrative complexity and decentralization were individually, but not jointly, significant predictors of KLD strengths and KLD concerns, respectively. Future researchers should attempt to understand the mechanisms underlying these differences. For instance, integrative complexity might better predict KLD strengths because the creativity and open-mindedness that characterize integrative complexity (Tetlock et al., 1993) cause TMTs with high integrative complexity to focus on generating new strategic actions that address a large number of stakeholders. However, to the extent that TMTs are subject to cognitive constraints, this focus may distract attention from previously implemented initiatives that are potentially harmful to stakeholders. In contrast, decentralization may better predict KLD concerns because this structure provides a useful channel for stakeholders' voices, resulting in decision makers being more cognizant of their concerns and therefore decreasing KLD weaknesses.

Future research examining and comparing the effects of other psychological and experiential variables on corporate social performance is also needed. In the present study, we have focused on one component of top leaders' psychologies: cognitive style. However, as Finkelstein and Hambrick (1996) noted, other psychological factors, such as executives' personalities and values, as well as their experiences (e.g., demographic characteris-

tics) inform executives' decision making. Further, research has found that values (de Luque, Washburn, Waldman, & House, 2008; Waldman et al., 2006), experiences (Thomas & Simerly, 1994, 1995), and leadership styles (Waldman et al., 2006) affect corporate social performance and firm performance. Thus, exploring the underlying processes (i.e., the black box) will allow scholars to better understand how TMTs' composition relates to their management of multiple stakeholders' needs. Although the GDQ does not measure personality characteristics, combining such methods with computerized content programs that do so (e.g., Linguistic Inquiry Word Count, Profiler Plus) may enable more comprehensive tests of the psychological variables influencing strategic leaders' decision-making processes and their effect on corporate social performance.

Drawing on upper echelons research, we have argued that integrative complexity and decentralization affect future corporate social performance. By lagging our data, we gained greater confidence in the direction of causality of the present results. However, future researchers may also wish to examine the possibly reciprocal relationship whereby corporate social performance affects future integrative complexity or decentralization. For instance, corporate social performance may positively affect TMT integrative complexity in such a way that the more stakeholders a firm is responsible to, the more likely it is that the TMT needs to recognize and integrate the competing needs of the various stakeholders, resulting in increased levels of integrative complexity. Likewise, corporate social performance could affect firm structure: the more stakeholders a firm is responsible to, the more necessary it is to delegate information search and communication, resulting in greater firm decentralization. By looking at the effects of corporate social performance on TMTs, researchers may also obtain a finer-grained understanding of the construct, and in particular, distinguish between intentions and actions regarding corporate social performance.

Related to this goal of refining understanding of the relationship between TMTs and corporate social performance, another interesting future research direction is to consider the relationships between TMT sociocognitive processes, organizational intentions to engage in corporate social performance, and actual corporate social performance actions. Organizational values and mission statements, two ways for top executives to communicate intended actions that will affect internal and external stakeholders (Agle et al., 1999; Ireland & Hitt, 1992), may influence the

relationship between TMT integrative complexity and corporate social performance. For example, in TMTs with profit-driven values, low integrative complexity may cause teams to be not only unaware of but also indifferent to the needs of some stakeholders (e.g., the surrounding community or environment), whereas high integrative complexity may cause teams to develop complex corporate social performance strategies that balance proactive behavior toward some stakeholders with harmful behavior toward others (cf. de Luque et al., 2008). Thus, future research should explore the relationships among levels of integrative complexity, intended actions affecting stakeholders, and actual corporate social performance.

Conclusions

In conclusion, in this article we have proposed that it is important to consider how top management teams affect corporate social performance because these teams guide firms' strategic decision making process for corporate social performance initiatives. We further argued that it is important to consider sociocognitive factors that impact these teams' decision making (e.g., integrative complexity), as well as the broader decision-making context for TMTs (e.g., decentralization of decision making). We found that both integrative complexity and decentralization are positively related to firm corporate social performance and that decentralization has stronger positive effects for firms with TMTs characterized by low integrative complexity than for firms with TMTs characterized by high integrative complexity. These findings provide a critical step in understanding the underlying sociocognitive processes and social structures that influence TMTs' strategic decision making and corporate social performance.

REFERENCES

- Aghion, P., & Tirole, J. 1997. Formal and real authority in organizations. *Journal of Political Economy*, 105: 1-29.
- Agle, B. R., Mitchell, R. K., & Sonnenfeld, J. A. 1999. Who matters to CEOs? An investigation of stakeholder attributes and salience, corporate performance, and CEO values. *Academy of Management Journal*, 42: 507-525.
- Aiken, L. S., & West, S. G. 1991. *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.
- Baker-Brown, G., Ballard, E. J., Bluck, S., de Vries, B.,

- Suedfeld, P., & Tetlock, P. 1992. The integrative complexity coding manual. In C. Smith (Ed.), *Handbook of thematic analysis*: 605–611. Cambridge, U.K.: Cambridge University Press.
- Bales, R. F. 1950. *Interaction process analysis: A method for the study of small groups*. Reading, MA: Addison-Wesley.
- Bales, R. F. 1958. Task roles and social roles in problem solving groups. In E. E. Maccoby, T. M. Newcomb, & E. L. Hartley (Eds.), *Readings in social psychology*: 437–446. New York: Holt, Rinehart & Winston.
- Beiles, N. 2000. Avon gets a makeover: Avon has high hopes for its online program. *Industry Standard*, December–January: 62–63.
- Berman, S. L., Wicks, A. C., Kotha, S., & Jones, T. M. 1999. Does stakeholder orientation matter? The relationship between stakeholder management models and firm financial performance. *Academy of Management Journal*, 42: 488–506.
- Boal, K. B., & Perry, N. 1985. The cognitive structure of corporate social responsibility. *Journal of Management*, 11: 71–82.
- Bommer, M., Grato, C., Gravander, J., & Tuttle, M. 1987. A behavioral model of ethical and unethical decision making. *Journal of Business Ethics*, 6: 265–280.
- Bouquet, C., & Deutsch, Y. 2008. The impact of corporate social performance on a firm's multinationality. *Journal of Business Ethics*, 80: 755–769.
- Bower, J. L. 1970. *Managing the resource allocation process*. Cambridge, MA: Harvard University Press.
- Byrnes, N. 2000. Avon: The new calling. *BusinessWeek*, September 18: 136–148.
- Carlsmith, J. M., & Gross, A. E. 1969. Some effects of guilt on compliance. *Journal of Personality and Social Psychology*, 11: 232–239.
- Carpenter, M. A., Geletkanycz, M. A., & Sanders, W. M. 2004. Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. *Journal of Management*, 30: 749–778.
- Carroll, A. B. 1979. A three-dimensional conceptual model of corporate social performance. *Academy of Management Review*, 4: 497–505.
- Conrad, C., & Poole, M. S. 2004. *Strategic organizational communication: In a global economy*. New York: Belmont.
- Daboub, A. J., Rasheed, A., Priem, R. L., & Gray, D. A. 1995. Top management team characteristics and corporate illegal activity. *Academy of Management Review*, 20: 138–170.
- David, P., Bloom, M., & Hillman, A. J. 2007. Investor activism, managerial responsiveness, and corporate social performance. *Strategic Management Journal*, 28: 91–100.
- de Luque, S. M., Washburn, N. T., Waldman, D. A., & House, R. J. 2008. Unrequited profit: How stakeholder and economic values relate to subordinates' perceptions of leadership and firm performance. *Administrative Science Quarterly*, 53: 626–654.
- Deckop, J. R., Merriman, K. K., & Gupta, S. 2006. The effects of CEO pay structure on corporate social performance. *Journal of Management*, 32: 329–342.
- deVries, B., & Walker, L. J. 1986. Moral reasoning and attitudes toward capital punishment. *Developmental Psychology*, 22: 509–513.
- Donaldson, T., & Preston, L. E. 1995. The stakeholder theory of the corporation: Concepts, evidence and implication. *Academy of Management Review*, 20: 65–91.
- Dooley, R. S., & Fryxell, G. E. 1999. Attaining decision quality and commitment from dissent: The moderating effects of loyalty and competence in strategic decision-making teams. *Academy of Management Journal*, 42: 389–402.
- Eisenberg, N., & Shell, R. 1986. Prosocial moral judgment and behavior in children. *Personality and Social Psychology Bulletin*, 12: 426–433.
- Entine, J. 2003. The myth of social investing: A critique of its practice and consequences for corporate social performance research. *Organization and Environment*, 16: 352–368.
- Finkelstein, S., & Hambrick, D. C. 1996. *Strategic leadership: Top executives and their effects on organizations*. St. Paul: West.
- Finkelstein, S., Hambrick, D. C., & Cannella, A. A. 2009. *Strategic leadership: Theory and research on executives, top management teams, and boards*. New York: Oxford University Press.
- Finkelstein, S., & Hambrick, D. 1990. Top-management-team tenure and organizational outcomes: The moderating role of managerial discretion. *Administrative Science Quarterly*, 35: 484–503.
- Freeman, R. E. 1984. *Strategic management: A stakeholder approach*. Boston: Pitman.
- Godfrey, P. C., Merrill, C. B., & Hansen, J. M. 2009. The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis. *Strategic Management Journal*, 30: 425–445.
- Graves, S. B., & Waddock, S. A. 1994. Institutional owners and corporate social performance. *Academy of Management Journal*, 37: 1034–1046.

- Greene, W. H. 2008. *Econometric analysis* (6th ed.). Upper Saddle River, NJ: Prentice-Hall.
- Gruenfeld, D. H., & Hollingshead, A. B. 1993. Sociocognition in work groups: The evolution of group integrative complexity and its relation to task performance. *Small Group Research*, 24: 383–405.
- Gruenfeld, D. H., Thomas-Hunt, M. C., & Kim, P. 1998. Divergent thinking, accountability, and integrative complexity: Public versus private reactions to majority and minority status. *Journal of Experimental Social Psychology*, 3: 202–226.
- Hage, J., & Aiken, M. 1970. *Social change in complex organizations*. New York: Random House.
- Hambrick, D. C. 2007. Upper echelons theory—An update. *Academy of Management Review*, 32: 334–343.
- Hambrick, D. C., & Finkelstein, S. 1987. Managerial discretion: A bridge between polar views of organizations. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior*, vol. 9: 369–406.
- Hambrick, D. C., & Mason, P. A. 1984. Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9: 193–206.
- Hemingway, C. A. 2005. Personal values as a catalyst for corporate social entrepreneurship. *Journal of Business Ethics*, 60: 233–249.
- Hemingway, C. A., & MacLagan, P. W. 2004. Managers' personal values as drivers of corporate social responsibility. *Journal of Business Ethics*, 50: 33–44.
- Hermann, M. G. 1999. Assessing leadership style: A trait analysis. *Social Science Automation*, <http://www.socialscienceautomation.com/docs/lta.pdf>.
- Hillman, A. J., & Keim, G. D. 2001. Shareholder value, stakeholder management, and social issues: What's the bottom line? *Strategic Management Journal*, 22: 125–139.
- Ireland, R. D., & Hitt, M. A. 1992. Mission statements: Importance, challenge, and recommendations for development. *Business Horizons*, 35: 34–42.
- Janis, I. L. 1972. *Victims of groupthink*. Boston: Houghton Mifflin.
- Janis, I. L. 1989. *Crucial decisions: Leadership in policy-making and management*. New York: Free Press.
- Johnson, J. L. 1999. Supermarket star? *Discount Merchandiser*, December: 18–21.
- Jordan, J., Mullen, E., & Murnighan, J. K. 2010. *On the pendulum of moral action: The effects of own and others' past moral actions on future moral behavior*. Unpublished manuscript, University of Groningen, Netherlands.
- Kacperczyk, A. 2009. With greater power comes greater responsibility? Takeover protection and corporate attention to stakeholders. *Strategic Management Journal*, 30: 261–285.
- KLD Research & Analytics. 2003. *KLD ratings data: Inclusive social rating criteria*. Boston: KLD Research & Analytics.
- Liht, J., Suedfeld, P., & Krawczyk, A. 2005. Integrative complexity in face-to-face negotiations between the Chiapas guerrillas and the Mexican government. *Political Psychology*, 26: 543–552.
- Malone, T. W. 1997. Is empowerment just a fad? Control, decision making, and IT. *Sloan Management Review*, 38(2): 23–35.
- March, J. G., & Simon, H. A. 1958. *Organizations*. New York: Wiley.
- Margolis, J. D., & Walsh, J. P. 2003. Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly*, 48: 268–305.
- Mattingly, J. E., & Berman, S. L. 2006. Measurement of corporate social action: Discovering taxonomy in the Kinder Lydenburg Domini ratings data. *Business and Society*, 45: 20–46.
- McGuire, J., Dow, S., & Arghyeyd, K. 2003. CEO incentives and corporate social performance. *Journal of Business Ethics*, 45: 341–359.
- Miller, D. 1987. Strategy making and structure: Analysis and performance implications for performance. *Academy of Management Journal*, 30: 7–32.
- Miller, D., & Toulouse, J. M. 1986. Chief executive personality and corporate strategy and structure in small firms. *Management Science*, 32: 1389–1409.
- Monin, B., & Miller, D. T. 2001. Moral credentials and the expression of prejudice. *Journal of Personality and Social Psychology*, 81: 33–43.
- Neter, J., Wasserman, W., & Kutner, M. H. 1989. *Applied regression models*. Homewood, IL: Irwin.
- O'Reilly, C. A., III, Chatman, J. A., & Caldwell, D. F. 1991. People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of Management Journal*, 34: 487–516.
- Orlitzky, M. 2001. Does firm size confound the relationship between corporate social performance and firm financial performance? *Journal of Business Ethics*, 33: 167–180.
- Orlitzky, M., & Benjamin, J. D. 2001. Corporate social performance and firm risk: A meta-analytic review. *Business and Society*, 40: 369–396.
- Orlitzky, M., Schmidt, F. L., & Rynes, S. L. 2003. Corporate social and financial performance: A meta-analysis. *Organization Studies*, 24: 403–441.

- Pava, M. L., & Krausz, J. 1995. *The association between corporate social responsibility and financial performance: The paradox of social cost*. Westport, CT: Quorum Books.
- Peterson, R. S. 1997. A directive leadership style in group decision making can be both virtue and vice: Evidence from elite and experimental groups. *Journal of Personality and Social Psychology*, 72: 1107–1121.
- Peterson, R. S., & Nemeth, C. J. 1996. Focus versus flexibility majority and minority influence can both improve performance. *Personality and Social Psychology Bulletin*, 22: 14–23.
- Peterson, R. S., Owens, P. D., & Martorana, P. V. 1999. The group dynamics q-sort in organizational research: A new method for studying familiar problems. *Organizational Research Methods*, 2: 107–136.
- Peterson, R. S., Owens, P. D., Tetlock, P. E., Fan, E. T., & Martorana, P. V. 1998. Group dynamics in top management teams: Groupthink, vigilance, and alternative models of organizational failure and success. *Organizational Behavior and Human Decision Processes*, 73: 272–305.
- Peterson, R. S., Smith, D. B., Martorana, P. V., & Owens, P. D. 2003. The impact of chief executive officer personality on top management team dynamics: One mechanism by which leadership affects organizational performance. *Journal of Applied Psychology*, 88: 795–808.
- Ruf, B. M., Muralidhar, K., Brown, R. M., Janney, J. J., & Paul, K. 2001. An empirical investigation of the relationship between change in corporate social performance and financial performance: A stakeholder theory perspective. *Journal of Business Ethics*, 32: 143–156.
- Sachdeva, S., Iliev, R., & Medin, D. L. 2009. Sinning saints and saintly sinners: The paradox of moral self-regulation. *Psychology Science*, 20: 523–528.
- Sauer, P. 2002. CEOs speak: Executive leadership. *Chemical Market Reporter*, June 3: 1–14.
- Schroder, H. M., Driver, M. J., & Streufert, S. 1967. *Human information processing*. New York: Holt, Rinehart & Winston.
- Schwenk, C. R. 1990. Conflict in organizational decision making: An exploratory study of its effects in for-profit and not-for-profit organizations. *Management Science*, 36: 436–448.
- Sellers, P. 1996, April 1. PepsiCo's new generation. *Fortune*, 133: 110–116.
- Simerly, R. L. 1995. Institutional ownership, corporate social performance, and firms' financial performance. *Psychological Reports*, 77: 515–525.
- Steers, R. M. 1977. *Organizational effectiveness: A behavioral view*. Santa Monica, CA: Goodyear.
- Suedfeld, P. 1992. Cognitive managers and their critics. *Political Psychology*, 13: 435–453.
- Suedfeld, P., Corteen, R. S., & McCormick, C. 1986. The role of integrative complexity in military leadership: Robert E. Lee and his opponents. *Journal of Applied Social Psychology*, 16: 498–507.
- Suedfeld, P., & Granatstein, J. L. 1995. Leader complexity in personal and professional crises: Concurrent and retrospective information processing. *Political Psychology*, 16: 509–522.
- Sullivan, E. V., McCullough, G., & Stager, M. 1970. A developmental study of the relationship between conceptual, ego, and moral development. *Child Development*, 41: 399–411.
- Tetlock, P. E. 1981. Pre- to post-election shifts in presidential rhetoric: Impression management or cognitive adjustment? *Journal of Personality and Social Psychology*, 41: 207–212.
- Tetlock, P. E. 1991. An integratively complex look at integrative complexity. In P. Suedfeld (Ed.), *New directions in research on integrative complexity*. Symposium conducted at the annual meeting of American Psychological Association, San Francisco.
- Tetlock, P. E. 2000. Cognitive biases and organizational correctives: Do both disease and cure depend on the ideological beholder? *Administrative Science Quarterly*, 45: 293–326.
- Tetlock, P. E., Bernzweig, J., & Gallant, J. L. 1985. Supreme Court decision making: Cognitive style as a predictor of ideological consistency of voting. *Journal of Personality and Social Psychology*, 48: 1227–1239.
- Tetlock, P. E., & Boettger, R. 1989. Cognitive and rhetorical styles of traditionalist and reformist Soviet politicians: A content analysis study. *Political Psychology*, 10: 209–232.
- Tetlock, P. E., Kristel, O. V., Elson, B., Green, M. C., & Lerner, J. S. 2000. The psychology of the unthinkable: Taboo trade-offs, forbidden base rates, and heretical counterfactuals. *Journal of Personality and Social Psychology*, 78: 853–870.
- Tetlock, P. E., Peterson, R. S., & Berry, J. M. 1993. Flattering and unflattering personality portraits of integratively simple and complex managers. *Journal of Personality and Social Psychology*, 64: 500–511.
- Tetlock, P. E., Peterson, R. S., McGuire, C., Chang, S., & Feld, P. 1992. Assessing political group dynamics: A test of the groupthink model. *Journal of Personality and Social Psychology*, 63: 403–425.
- Tetlock, P. E., Peterson, R., & Lerner, J. 1996. Revising the value pluralism model: Incorporating social content and context postulates. In C. Seligman, J. Olson, & M.

- Zanna (Eds.), *Ontario symposium on social and personality psychology: Values*. Hillsdale, NJ: Erlbaum.
- Thomas, A. S., & Simerly, R. L. 1994. The chief executive officer and corporate social performance: An interdisciplinary examination. *Journal of Business Ethics*, 13: 959–968.
- Thomas, A. S., & Simerly, R. L. 1995. Internal determinant of corporate social performance: The role of top managers. *Academy of Management best papers proceedings*: 411–415.
- Ullman, A. H. 1985. Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance of US firms. *Academy of Management Review*, 10: 540–557.
- Van der Laan, G., Van Ees, H., & Van Witteloostuijn, A. 2008. Corporate social and financial performance: An extended stakeholder theory, and empirical test with accounting measures. *Journal of Business Ethics*, 79: 299–310.
- Waddock, S., & Graves, S. 1997. The corporate social performance-financial performance link. *Strategic Management Journal*, 18: 303–319.
- Waldman, D. A., de Luque, M. S., Washburn, N., House, R. J., Adetoun, B., Barrasa, A., Bobina, M., et al. 2006. Cultural and leadership predictors of corporate social responsibility values of top management: A GLOBE study of 15 countries. *Journal of International Business Studies*, 37: 823–837.
- Waldman, D. A., Siegel, D. S., & Javidan, M. 2006. Components of CEO transformational leadership and corporate social responsibility. *Journal of Management Studies*, 43: 1703–1725.
- Wally, S., & Baum, J. R. 1994. Personal and structural determinants of the pace of strategic decision making. *Academy of Management Journal*, 37: 932–956.
- Wartick, S. L., & Cochran, P. L. 1985. The evolution of the corporate social performance mode. *Academy of Management Review*, 10: 758–769.
- Westervelt, R. 2000. Dow's Parker aims for the next level. *Chemical Week*, 162(November 8): 51–52.
- Williams, K. Y., & O'Reilly, C. A. 1998. Demography and diversity in organizations: A review of 40 years of research. In B. M. Staw & R. Sutton (Eds.), *Research in organizational behavior*, vol. 20: 77–140. Greenwich, CT: JAI.
- Winter, D. G. 2007. The role of motivation, responsibility, and integrative complexity in crisis escalation: Comparative studies of war and peace crises. *Journal of Personality and Social Psychology*, 92: 920–937.
- Wood, D. J. 1991. Corporate social performance revisited. *Academy of Management Review*, 16: 691–718.
- Wood, D. J., & Jones, R. E. 1995. Stakeholder mismatching: A theoretical problem in empirical research on corporate social performance. *International Journal of Organizational Analysis*, 3: 229–267.
- Wu, M. L. 2006. Corporate social performance, corporate financial performance, and firm size: A meta-analysis. *Journal of American Academy of Business*, 8: 163–171.
- Zhong, C. B., Ku, G., Lount, R. B., Jr., & Murnighan, J. K. 2010. Compensatory ethics. *Journal of Business Ethics*, 92: 323–339.
- Zhong, C. B., & Liljenquist, K. 2006. Washing away your sins: Threatened morality and physical cleansing. *Science*, 313: 1451–1452.

APPENDIX A

Verbatim Q-Sort Instructions Provided to Raters^a

*****Reminder: The task is NOT to portray the group the way you think it is but rather to portray the group as the author of the text believed it to be.

1. First read through the packet of articles.
2. As you read through the articles, write in margins or mark areas that seem of particular significance to the GDQ items (this will get easier as you become more familiar with the instrument)
 - a. If any areas in the text stand out as representing specific items then mark in margin
 - b. If any items seem extremely characteristic of the group note that too in the margin
3. First sort the cards into three stacks in a row starting with item no. 1.
4. Place in the upper stack (i.e., categories 1–4, which represent Extremely Characteristic, Highly Characteristic, Quite Characteristic and Slightly Characteristic, respectively) all those cards for which the upper statement is characteristic of the group.
5. Place in the lower stack (i.e., categories 6–9, which represent Slightly Characteristic, Quite Characteristic, Highly Characteristic and Extremely Characteristic, respectively) all those cards for which the lower statement is characteristic of the group.
6. Place in the middle (i.e., category 5, neither upper nor lower statement is characteristic) the remaining cards. No attention need be paid to the number of cards falling in each grouping at this time.
7. When the three stacks have been established, they must be further fractionated into a row of categories, placing the most characteristic statements at the two ends of the row. See below table.

^a These instructions were adapted from Tetlock et al. (1992). Wording and formatting here are verbatim from our study.

Rating/ Category	Label	Number of Cards
Upper		
1	Extremely Characteristic	5
2	Highly Characteristic	8
3	Quite Characteristic	12
4	Slightly Characteristic	16
Middle		
5	Neither upper nor lower statement is characteristic	18
Lower		
6	Slightly Characteristic	16
7	Quite Characteristic	12
8	Highly Characteristic	8
9	Extremely Characteristic	5

Examples of text from **GDQ** packets representing high and low integrative complexity and decentralization:

High Integrative Complexity. The below excerpts from Avon's GDQ packet highlights how Avon's top management team (TMT) encourages different perspectives and works towards integrating these views.

Inside the Park Avenue tower in New York where Avon's Internet division is based, management knows the venture isn't exactly risk-free. Avon will need to strike the difficult balance between changing to stay competitive and keeping what works (Beiles, 2000).

To ensure the reps' concerns are considered, Avon has been polling them about the site, asking them what kind of technology could help them. Focus groups include both the Web-savvy and the technologically illiterate to create a site that everyone can use. The result: a Web-site design that gives customers an option to shop with Avon directly but first asks them if they'd like an eRepresentative in their Zip Code (Byrnes, 2000).

Low Integrative Complexity. The below excerpts from Coca-Cola's GDQ packet highlights how Coca-Cola's TMT focused on a small range of perspectives.

"Doug probably has 100 models for how to get through things" says Stahl, "whether it's a discussion with an employee, a review of a marketing program, an approach to a crisis, a talk with a government official, or remarks to a community group." These models, or templates for decision making, are designed to help Ivester and his team move quickly (Jack Stahl, head of Coca-Cola's North America group in Sellers, 1996).

Ivester's modeling tends to work when constituents and key decision makers, shareholders and regulators, for example, see the world the way he does and play by the rules. When they don't the modeling can backfire (Sellers, 1996).

High Decentralization. The below excerpts from Dow Chemical's GDQ packet highlights how Dow was a highly decentralized firm.

The organization is also much flatter. There are only six layers of management between the lowest-level Dow employee, down from 12 in the early 1990s (Westervelt, 2000).

"Dow, more so than any other chemical company, has always been managed by a team of executives rather than an autocratic CEO," says John Roberts, analyst at Merrill Lynch (Westervelt, 2000).

CEO Michael Parker notes that the top management team worked "toward a concept we call 'leadership at all levels.' Simply put, we want every one of our employees to take on the mantle of leadership" (Sauer, 2002).

Low Decentralization. The below excerpts from Safeway's GDQ packet highlights how Safeway was a highly centralized firm.

Lisa Cartwright, a vice president for J.P. Morgan in New York . . . admires Burd's mastery of details. "He is very focused on the business. By that I mean he is a great executor. Retail is about detail and Steve Burd is clearly a CEO who is involved in every aspect of the business" (Johnson, 1999).

[Safeway] has retained the names of acquired companies Vons, Dominick's, Carr and Randall's. Cartwright believes that's a sign Safeway officials don't want to change what the consumer sees, but that doesn't mean that administrative functions, technology, human resources and real estate development don't get centralized behind the scenes (Johnson, 1999).



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