JANUS-FACED DO-GOODERS?

A "MORAL ACCOUNTING" PERSPECTIVE ON EXECUTIVE CROSS-DOMAIN DECISION-

MAKING

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ABSTRACT

Research on executive decision-making is typically based on a premise of consistency: that executives' decisions across situations reflect relatively stable belief systems and values. We draw on psychological theories of moral regulation to delineate a complementary viewpoint on executive decision-making. Specifically, we propose that executives also engage in "mental accounting" in realizing values-based aspirations, whereby they make decisions to balance out other, more divergent actions. We test this prediction by investigating the (mis)alignment of executives' social values-based priorities across two domains. Using a panel of 677 corporations linked to 309 foundations through 1,109 CEOs during the period 2003-2011, we examine whether the strength of firms' CSR record prompts CEOs to join the board of trustees of a nonprofit foundation. We also assess the alignment between promotion of specific social causes in the two organizations that these CEOs influence simultaneously: corporate CSR efforts and foundations' grant-making. We find support for moral regulation predictions in (1) CEOs' decisions to join a foundation board of trustees, (2) their choice of foundation based on its prioritized causes, and (3) the foundation's subsequent resource allocation patterns. This paper contributes primarily to research on managerial cognition and decision-making, and more generally to the larger topic umbrella of strategic leadership.

INTRODUCTION

Management scholars have documented that the experiences, values, and personalities of corporate executives, especially CEOs, influence a variety of organizational outcomes including those related to strategic choice (Child 1972), strategic leadership (Finkelstein et al. 2008), and managerial cognition (Walsh 1995; Weick 1969). The primary mechanism behind these relationships is psychological: leaders' experiences, values, and preferences influence how they interpret the situations they face and thus generate recurrent decision biases which in turn affect organizational decisions and actions. Empirical research showing that various organizational policies and decisions reflect executives' experience and values supports this view (Agle et al. 1999; Chin et al. 2013; Simsek et al. 2005).

This extensive body of research has focused almost exclusively on decisions and outcomes within the corporate management domain. However, members of the corporate elite play a role in American society well beyond business management, as many of them take on civic, political, or private roles on top of their corporate responsibilities (Useem 1980). A singular focus on the influence of their cognitions and values as corporate executives may thus be limiting, because it masks the possibility of inconsistent or compensatory choices across distinct institutional and life domains. While the cohesiveness of the business elite – and hence their collective power – has been questioned (Davis and Mizruchi 1999; Useem 1996), the assumption of consistent individual influence across distinct institutional domains has remained uninvestigated. As such, a focus on corporate executive roles alone leaves unanswered whether observed executive influences are in fact due to person-level cognitive and value systems that transcend domainspecific roles and situations.

Studying leaders' behavior across domains necessitates a more nuanced model of executive decision-making that emphasizes the interplay between personal aspirations and situational influences. In this paper, we draw on social-psychological theories of moral regulation (De Cremer and van Dijk 2008; Monin and Jordan 2009) that emphasize "mental accounting" processes: specifically, that individuals respond to falling short of, or exceeding, their social values-based priorities in one domain by taking

compensatory, and thus seemingly inconsistent, action in another. We thus depart from studies of executive influence in an important way, questioning whether executives hold a relatively stable and consistent set of preferences that they express recurrently through their organizational decisions (Hambrick 2007).

Contributing to society is a broad mandate that can be addressed in many ways, and thus leaves significant discretion related to interpreting and acting on the mandate (Bansal 2005). In the corporate domain, the CEO is considered the firm's chief decision-maker, with most say over discretionary policies, and thought of as being predisposed toward specific behaviors (e.g., Zhu and Chen 2015). While existing studies of executive pursuits of values around social good (i.e., social values-based priorities) have typically examined the likelihood and magnitude of engagement in CSR, CEOs are also sought-after members of nonprofit boards due to their knowledge, skills, contacts, and image (Bowen 1994; Ostrower 2002; Useem 1980). The assumption of these roles in distinct institutional domains affords CEOs extensive opportunities to realize their social values-based priorities¹. However, only a handful of studies have examined CEOs' nonprofit activities (i.e., Galaskiewicz 1985; Useem 1980), and none the connections between such activities and CEOs corporate social priorities. Therefore, in this paper, we study cross-domain behaviors as related to the *simultaneous* engagement of CEOs in CSR as corporate officers, and in nonprofit grantmaking as directors on nonprofit foundation boards.

CSR and philanthropy represent two distinct domains of moral and social values-infused actions to further the public good² (Haidt 2003). While CSR initiatives are thought broadly to include instrumental elements (Eccles et al. 2014; Flammer and Luo 2017) in addition to their normative and value-driven aspects (Haidt 2003), our focus on the normative dimension of CSR (and controlling for instrumental or material CSR) allows us to draw directly on work on the psychology of moral regulation to understand the relationship between executives' actions in corporate and independent philanthropy domains.

¹ Behavioral decision theory suggests that spending time/effort is a greater behavioral investment that is also psychologically different from monetary donations, with the latter being perceived as a less moral way of providing a social benefit to others (Kruger et al. 2004; Reed et al. 2007).

² Social cognition research considers behavior that addresses the needs of others as "moral behavior" (Agerström and Björklund 2009; Aquino and Reed 2002; Conway and Peetz 2012), reason why we use the terms social and moral interchangeably.

Psychological models of moral accounting processes apply most directly to personal interpretations and preferences for such actions, which are central to the discretionary decisions of executives in our context. We focus specifically on the prioritization of alternative social causes in CSR and philanthropic efforts, such as contributing to environmental protection, human rights, community welfare, or employees and diversity. The respective emphases on particular social causes reveal the extent of alignment of executives' cognitions and values across domains and roles. At the paper's end, we revisit the extent to which cross-domain mental accounting processes may apply to other types of decision-making.

We test a set of hypotheses derived from the moral regulation model of executive decision-making using CSR performance data of all S&P 500 corporations for the period 2003-2011 and the philanthropic grants made by nonprofit foundations during that same period. Our analyses center on the choices that CEOs of S&P 500 firms with various levels of CSR performance make to join foundation boards and their influence after that point. Our theoretical and empirical model of cross-domain mental accounting does not examine traditional proxy measures (e.g., age, tenure, liberalism, narcissism) for individual cognitive differences. Rather, our theory addresses the underlying premise of consistency between CEOs' cognitivebased preferences and decision-making using the case of social values-based preferences (as expressed through a corporation's strengths on CSR dimensions) and CEOs' related decision-making across domains (as expressed through foundations' grantmaking). Attention to the sequence of choice and allocation priorities on social issues allows for particularly strong tests of (mis)alignment, because both contexts of CSR and philanthropy afford discretion to the individuals of focus, the controlling elites.

This paper contributes primarily to research on managerial cognition and CSR, by providing a first test of the proposition that executives' social values-based influence may not align across domains, because they are likely to engage in moral accounting and compensatory behavior. Our work holds implications for the broader conceptualization of business elites' societal role in allocating resources to diverse social causes. Whether CEOs' value priorities align or misalign across domains is relevant for our understanding of the role of the business elite in society. If executives' personal influence generates consistent allocation

priorities across institutional domains, members of the business elite do indeed direct resources in a more global, comprehensive way than has been recognized to date. If attention to various causes are unrelated or opposite across settings, then perhaps business elites' values and preferences are compartmentalized within a given domain, thus having less far-reaching or effective implications related to societal outcomes. Our findings point to the latter scenario, which suggests that situational and institutional norms may be more potent explanations for allocation patterns across individuals' roles and activity domains.

BUSINESS ELITES' TIES TO THE NONPROFIT DOMAIN

As discussed above, the primary mechanism through which experiences, values, and preferences of controlling elites become systematically reflected in their organizations is their psychological information-processing and decision-making, and the premise for a systematic pattern is *consistency*. Experiences, values, and preferences form relatively stable belief structures and traits that act as habitual perceptual filters, interpretive schemas, and value orientations that systematically guide decision-making (Starbuck and Milliken 1988). Scholars have built on the premise of consistency to examine decisions and outcomes within the corporate domain, and have amassed substantial empirical evidence that top executives influence their organizations with regard to business strategies and CSR policies (Hambrick 2007).

This argument has been extended to *equivalent* elites in nonprofit organizations (e.g., Ritchie et al. 2004). Despite rich descriptive observations of business elites' presence in the leadership of these organizations, few studies have examined corporate executive ties to philanthropy; those that have, present a business-transactional explanation for why ties are created, under various theoretical umbrellas such as resource dependence, social exchange, legitimization, efficiency, and strategic collaboration (e.g., Austin 2010; Galaskiewicz 1991; Marquis et al. 2007; Wang et al. 2008). This research has not considered whether elites' involvement in philanthropic organizations may also be driven by a need to express personal value preferences across distinct institutional and life domains were they may also fulfill decision-making roles (Finkelstein et al. 2008). Our study addresses this dual theoretical and empirical gap using the context of

CSR and nonprofit grantmaking, two morally infused domains of decision-making often influenced by the same elites in their dual roles as corporate CEOs and foundation directors.

As we mentioned, past research has examined CSR either as an instrumental activity (e.g., Flammer and Luo, 2017) in which social responsibility measures are integrated into business models in order to create shareholder value (Freeman et al., 2010; Porter and Kramer, 2011) as part of the firm's "joint welfare function" (Eccles et al. 2014), or as a normative (i.e., institutional) activity in which CSR is typically described to be values-driven and not necessarily tied to a firm's business models (e.g. Haidt 2003). In our paper, we focus on the normative characteristics of CSR.

Prior research in this tradition has argued that CEOs' social values-based priorities influence the development of their firms' CSR orientation and performance (e.g., Waldman et al. 2006). The argument has been that CSR commitments are extensively "maintained, nurtured and advanced by the people who manage them" (Quazi 2003: 822). The mechanism of influence is behavioral consistency. A CEO's values-based priorities become reflected in a firm's CSR actions through a process known as "behavioral channeling," whereby the CEO weighs options and then selects that which most closely suits their values (England 1967). Alternatively, values may influence actions indirectly, through a process known as "perceptual filtering," whereby the CEOs perform a selective search for information that suits their values and then interpret that information in a values-congruent way (England 1967).

A number of social-psychological explanations can account for the selection of courses of action congruent with executives' moral values. For example, because cognitions and attitudes consistent with recalled behavior are more easily accessible, individuals are more likely to engage in that behavior (Albarracin and Wyer 2000). Many psychological theories offer predictions of behavioral consistency, including those related to cognitive dissonance (Festinger 1957), balance theory (Heider 1958), and self-perception (Bem 1972); each suggests that individuals avoid inconsistency due to its psychologically distressing nature (Mulder and Aquino 2013). Overall, if corporate leader's social values-based priorities

extend over an organization's involvement in the social good through personal influence, then elites' priorities regarding the social good are necessarily reflected in their firms' CSR actions.

While consistency-based arguments have had wide appeal in strategy and organization theory research, scholars in social psychology have also shown that such representations are not always accurate construals of people's behaviors. Rather, in some contexts, human behavior can also oscillate between consistency and inconsistency (Mulder and Aquino 2013). Specifically, when considering how moral values affect decision-making, studies in the behavioral ethics and moral psychology traditions reveal the important roles of self-related processes that underlie values-based moral behavior (Joosten et al. 2014).

We build on moral regulation theory in psychology to outline a model of decision-making across situational domains—corporations and nonprofit foundations they simultaneously govern— that accounts for the interplay between personal moral aspirations and contextual influences to explain why seeming inconsistent decision-making may occur. The mechanisms that underlie compensatory—and thus seemingly misaligned—action across domains of social good serve as a useful complement to the traditional emphasis on consistency between executive attributes and decisions found in the majority of strategic leadership and managerial cognition research, including upper echelons.

Below we discuss how moral regulation mechanisms lead to predictions for the effects of CEOs' values on decision-making across domains that depart from the traditional premise of consistency. With focus on corporations and nonprofit foundations as divergent domains in which the same executive can simultaneously fulfill decision-making roles, we examine the influence of social values-based priorities on three morally infused actions that are naturally sequential: (1) joining a foundation's board, (2) choosing the foundation based on its social priorities, and (3) influencing foundation grantmaking after joining.

Moral Regulation in CEO's Expression of Social Values-based Priorities across Domains

Selectivity in CEO-Foundation Board Ties

Given the relative paucity of empirical research using the field of nonprofits, we need to consider how the process by which CEOs become foundation board members. Expectations to act responsibly and "do good" can be considered strong and universal, but also retain sufficient interpretive flexibility to afford elites a broad menu of choices for meeting those mandates. Outside a corporation's CSR practices, business elites also take leadership roles to satisfy their social values-based commitments in nonprofit foundations. The significance of nonprofits as an independent power center in the U.S. has been highlighted by scholars and practitioners as recent as Prewitt (2006) and as early as Useem (1980) and Galaskiewicz (1985). While the nonprofit sector itself is large and diverse, extant research is based on public charities and independent foundations (classified as 501(c)(3) organizations). These foundations³ direct their contributions exclusively to charitable purposes, receive the largest tax deductions, and are required to file IRS reports (Boris and Steuerle 2006). The main difference between the two types of organizations is in their source of support, in that most independent foundations are funded through an initial historical endowment and most public charities are donor-funded on an ongoing basis.

While the process by which business elites come to occupy board positions in non-profit foundations has not received much research attention, we can draw on the rich descriptive accounts of foundations' management, organizing, and activities, for inferences regarding this process. Compared to corporate activities, the grant-making activities of foundations tend to be largely insulated from external checks and far less monitored. The board of trustees represents a foundation's decision-making body, in charge of establishing the social causes on which the foundation will focus and the magnitude of grant allocations for those causes (Lungeanu and Ward 2012). The accountability of a foundation's board of trustee directors is low (Bowen 1994). As such, foundations can select from a large range of social cause priorities, assign them different weights, and change those weights over time. Moreover, the constituency of foundations (i.e., stakeholders) is not always clear, and goal achievement is hard to measure by outsiders or by the foundation's management and board (Bowen 1994). Trustees may listen to donors' interests but are not obliged to do so under law, as best illustrated by Henry Ford's woeful statement when he realized that the Ford Foundation itself would move in directions other than those he favored (Weymouth 1978).

³ Throughout the paper we will refer to public charities and independent foundations as "foundations," with the exception of the Methods section, where distinguishing between the two is necessary for statistical precision.

Business elites' engagement in foundations has often been portrayed as a discretionary activity par excellence, neither required nor standardized (Buchholtz et al. 1999). Business elites are in high demand for their knowledge and skills, fundraising ability, contacts, and image, even more so when they hold top positions in large corporations (DiMaggio and Anheier 1990; Stone and Ostrower 2007). The IRS and potential donors require "certifiable" reporting of financial wealth and assurances that funds are invested wisely (Bowen 1994). Fundraising increases when prominent business leaders make regular appearances at benefits and other public events. Where fundraising is not necessary, directors with business skills are expected to oversee fund investments and are typically deferred to in business matters Bowen (1994). While the vast majority of foundation directors do not receive compensation (Bowen 1994), benefits accrue to CEOs. Because foundations derive legitimacy from "deep public and official support for charitable giving, volunteering, and self-help" (Heydemann and Toepler 2006:5), a CEO's ties to foundations provide benefits in the areas of social recognition and exclusivity of membership (Galaskiewicz 1985; Useem 1980), as well as elite status and influence (e.g., Ostrower 2002). Overall, the descriptive accounts summarized above suggest that the selection process involves gains and a great degree of discretion for both sides. It is likely that CEOs, especially those leading large corporations, control their *choice* of foundation and play a role in the future *allocation* of discretionary resources.

Moral Regulation in the CEO's Decision to Join a Foundation's Board of Directors

"A number of individuals from the for-profit sector would join nonprofit boards for reasons of status and with the expectation that they will enjoy a kind of "vacation from the bottom line." [...] many others (including some of the same people) join because of deep personal commitments to their values and purpose. [...] some executives join nonprofit boards in part to shed the "barbarian" image that otherwise may afflict them – either in their own perceptions or in the perceptions of others." (Bowen 1994: 133-134)

The quote above illustrates the variance that exists in CEOs' psychological need to express their moral commitments outside the corporate setting, in the foundations they run through their positions as trustees on the board of directors. Equally important, it illustrates a counterintuitive expectation of inconsistency in how such psychological need will be expressed. Accounting for the actions illustrated in

the quote requires theory that can consider the interplay between personal aspirations and situational influences, and a dynamic model of decision-making to complement those offered by a consistency model.

Like theories in strategic leadership and managerial cognition, moral regulation theory (e.g., Sachdeva et al. 2009) is rooted in social psychology and shares the same expectation that people consider morals-based values central to the self. As a result, people experience a strong motivation to engage in action and express their social values-based priorities (Conway and Peetz 2012). The point of departure from theories of executive decision-making is that people employ different behavioral mechanisms to express their social values-based priorities. Specifically, Jordan et al. (2011) argue that moral behavior is dynamic, and not necessarily leading to predictions of consistency (i.e., alignment). Thus, we can expect misalignment between executives' priorities as espoused in their firms and their behavior and decisions in an outside domain.

Research on moral regulation in social psychology differs from the relatively static, consistencyladen, model of human behavior through the greater weight that it places on situational and dynamic processes. Developed specifically in the context of moral decision-making and social dilemmas, research on moral regulation is based on a simplified "moral accounting" model, in which people seek to balance their metaphorical moral accounts in a manner similar to how they would balance economic transactions (Johnson 1994), which gives rise to behavioral discrepancies (De Cremer and van Dijk 2008). Situational influences and an individual's prior moral aspirations result in subsequent decisions that are seen as underlying inconsistent cross-situational behavior (Zhong et al. 2009). Research on personality supports these arguments, having found only moderate correlation among people's behaviors across situations (Mulder and Aquino 2013).

Under a moral regulation framework, individuals continuously monitor their sense of moral integrity and, when perceiving discrepancies, seek action to resolve them. Moral cleansing (Carlsmith and Gross 1969), whereby subsequent helping behavior is triggered by a need to offset a spoiled self-image, and moral licensing (Monin and Miller 2001), whereby people may refrain from good behavior when they

have accrued a surplus of moral currency, are two mechanisms of self-regulation that people use to maintain a comfortable level of moral behavior (Sachdeva et al. 2009). When considered within the same individual, the self-regulation process highlights how an individual's values-based behavior fluctuates over time as a function of self-perception regarding the current completeness of the moral self (Jordan et al. 2011).

Moral cleansing and moral licensing have been thoroughly documented in social-psychology research. Zhong et al. (2009) showed that MBA students who imagined behaving ethically in a vignette made less ethical decisions in subsequent vignettes; whereas those who imagined behaving unethically in a vignette made more ethical decisions in subsequent vignettes. Sachdeva et al. (2009) showed that affirming one's moral identity by simply writing about one's self using moral words leads people to donate less, while a threatened moral identity yielded by writing about one's self using immoral words increases donation amounts. Merritt et al. (2010) argued that individuals who had established their kindness, generosity, or compassion through previous actions will feel less compelled to donate to charity. These compensatory effects occur because people generally aspire to maintain a comfortable level of moral image (Sachdeva et al. 2009) rather than achieving moral perfection (Monin and Jordan 2009), and thus they will engage in actions to achieve that comfortable level when deviations occur. In other words, people compare their current and desired states and strive to resolve discrepancies to achieve an overall level of moral aspirations (Mulder and Aquino 2013).

Moral regulation processes occur in domains as divergent as consumer choice, political incorrectness, and prosocial choices (see Merritt et al. 2010, for a review). Regulatory actions reflect individual needs to be moral, rather than representing image-related or self-presentational strategies (Aquino and Reed 2002; Jordan et al. 2011). Moreover, regulatory actions can also emerge in situations and domains distinct from those of the preceding moral behavior. For example, Jordan et al. (2011) showed that recalling various past moral actions results in less prosocial activities, while Zhong et al. (2009) showed that making participants recall an unethical deed from their past induced them to generate more cleansing-related words, to judge cleansing products as more desirable, and to use antiseptic wipes. Thus, people

reminded of a "sin" try to wash it away using any means available to them (Mulder and Aquino 2013), even in the literal sense. On the other hand, individuals will refrain from morally charged activities (and sometimes even engage in morally doubtful activities) if they feel they have achieved a satisfactory level of morality.

Similar to work in social psychology examining moral compensation and consistency, we examine here prescriptive social values-based action – actively seeking (or avoiding) to act for social betterment – instead of proscriptive values-based action – actively seeking or avoiding to act in an immoral or harming fashion, because the two are not psychological equivalents (Conway and Peetz 2012; Janoff-Bulman et al. 2009)). Thus, we do not argue that accomplishing a strong CSR performance in a firm will increase a firm's leader motivation to engage in actions such as environmental pollution or hiring only white men. Rather, a moral regulation framework would suggest that corporate leaders who accomplished their values-based inclination toward the social good (as reflected by the organization's CSR performance) will feel less inclined to create ties to foundations. This effect occurs because (a) corporate CSR and foundation activity serve as substitutes for realizing overall moral aspirations and (b) strong CSR performance represents a credit on the CEO's moral balance, which makes the CEO less compelled to engage in additional morally infused behavior. We hypothesize that:

H1: The stronger a firm's CSR performance, the lower the likelihood that the firm's CEO will join the board of trustees of a nonprofit foundation.

Having established our key prediction regarding when to expect a CEO to join a foundation's board, it is now important to understand the choices that CEOs make regarding which foundation to join and the direction of the CEO's influence on the foundation. We examine these in terms of four alternative social issues (i.e., Environmental, Human Rights, Community, and Diversity & Employee Relations) prominent in the corporation's CSR and in the foundation's grantmaking at the time of a CEO's joining and with regard to subsequent allocation priorities.

Moral Regulation in the CEO's Choice of Foundation Social Cause Priorities

The intuition behind the traditional prediction of consistency between social values-based priorities and behavior would predict that corporate leaders who exhibit an inclination toward a specific social issue (as reflected in their firm's CSR performance) will demonstrate tendency towards the same social issue when choosing the foundation and future allocation priorities. The tendency occurs because executives are endowed with relatively stable cognitive characteristics (i.e., belief structures, values, and character traits) that act as perceptual filters, interpretive schemas, and value orientations that systematically guide decisionmaking (Starbuck and Milliken 1988). This psychological model originates from ideas in experiential learning and personality psychology research (Hambrick 2007), and has been applied to show how an individual's prior experiences and preferences affect various firm activities and outcomes.

Experienced-based learning is one cognitive mechanism for alignment. Company pursuit of a social cause such as Diversity, for example, entails recognizing issues relevant to the diversity cause and designing/implementing/monitoring routines to address them. These activities lead to the accumulation of experience unique to the social cause. Because knowledge developed through experiential learning is sticky (Argote and Miron-Spektor 2011; Nonaka and Von Krogh 2009), it would be reasonable to expect that CEOs will join foundations pursuing social causes matching those of the firm's focus. The effect of this alignment mechanism is enhanced further by motivational forces to maintain a cohesive private and public self as a principled person by seeking behavioral congruence across situations (Dutton and Dukerich 1991).

In contrast to this relatively static model of individual behavior, the central insight we draw from the moral regulation model is that people seek to achieve an *acceptable level of overall virtuousness*. In doing so, individuals self-regulate their moral behaviors by compensating for past behaviors in a specific moral category. While a moral accounting model of executives' psychology would generate predictions contrary to those based on consistency arguments, the notion of *overall level of virtuousness* is compatible with psychology research on the concept of "core self-evaluation" (Judge et al. 1997) and its application to managerial cognition, suggesting "CEOs broadly evaluate themselves and their relationships to their environment" (Hiller and Hambrick 2005). This is because two interrelated mechanisms are at work. First, individuals may recognize that there is a multiplicity of interchangeable settings that contribute to feelings of self-worth. Second, they may have the latitude of action to compensate for their behavior in one setting with complementary actions in another. In support of these mechanisms, Jordan et al. (2011) concluded that "individuals use multiple routes to realize their moral selves", a notion in agreement with the original Hambrick and Brandon (1988) idea that executives choose among the alternatives presented to them.

The principles underlying a moral regulation model apply to morally infused decisions such as selecting a foundation to join based on its observable social cause priorities. For example, when a corporation enjoys high CSR performance on environmental issues, the CEO may decide to compensate and join a foundation focused on human rights, community, or employees and diversity issues. While the resulting decision pattern may reflect a discrepancy between social causes of focus for corporate CSR and foundation philanthropy, the pattern is predictable under a moral regulation model because areas of social values-based commitment are psychological substitutes for one another (Gollwitzer et al. 1982; Jordan et al. 2011). Specifically, if satisficing personal aspirations related to a specific social cause will move CEO focus to another cause, then CSR and philanthropy emphases would be predicted to be opposite. Based on the moral regulation line of reasoning, we state the following hypothesis regarding the foundation that a firm's CEO will select to join:

H2: CEOs are more likely to join the boards of foundations that emphasize grantmaking causes dissimilar from those emphasized by the CEO's corporation CSR performance.

Moral Regulation in the CEO's Influence on Foundation Social Cause Priorities

The institutional setting of foundations is associated with a wide range of goals related to social betterment, and activities toward these objectives are subject to low levels of external accountability (Bowen, 1994), as mentioned earlier. One would thus expect corporate executives who become foundation directors to play a role in the *allocation* of discretionary resources.

The mechanism of experiential learning, as described in strategic leadership and managerial cognition research (Argote and Miron-Spektor 2011; Nonaka and Von Krogh 2009) would lead us to predict that corporate executives of companies with CSR strengths related to a specific social issue would prefer to allocate a foundation's resources to that same issue. For example, consider that a company's pursuit of environmental causes consists of recognizing the firm's impact on the environment and designing and implementing routines to address environmental challenges, along with taking other environmental improvement measures. Such activities entail substantial learning that supplement an individual's need for psychological consistency, leading to the expectation that the corporate executive will apply such knowledge in future activities focused on the social good and thus affecting their decision-making in any foundations as well.

However, extension of this argument for CEO decisions across domains generally and in a foundation specifically must be made in the context that the primary function of a trustee director in a foundation is to evaluate grant requests, channel resource flows, and raise resources (Andrés-Alonso et al. 2010), in contrast to typical CEO corporate activities. Considering that consistency patterns are more likely when two behavioral situations are similar (Albarracin and Wyer 2000), thus facilitating the implementation of learned knowledge, one should not necessarily assume that a foundation's subsequent allocation of resources will target social causes similar to those prioritized by the CEO in their firm.

One argument made by scholars examining motivation is that individuals' pursuit of consistency is a product of motivational forces to maintain a cohesive self as a principled person (Albarracin and Wyer 2000; Dutton and Dukerich 1991). However, research in moral regulation has found evidence that moral action is broadly construed, such that individuals can take multiple routes to realize their desired moral selves (Jordan et al. 2011). Individuals generalize across activities within the moral domain and can substitute among disparate social issues to maintain their overarching goal of being a principled person.

Given corporate limitations to business elites' expression of their social domain values, the psychological dynamic of substitution or compensation is more likely to occur outside the corporate domain, where executives can compensate by taking advantage of the greater level of discretion that non-

corporate areas afford them. Taking additional CSR initiatives when the firm already performs well in the social domain (as shown by CSR strengths) may signal that the firm has a large pool of slack resources (Seifert et al. 2004; Walsh et al. 2003) spent without a return (McWilliams and Siegel 2001; Wang et al. 2008), triggering the withholding of critical funds and pessimistic analyst reactions (Ioannou and Serafeim 2015). Thus, moral regulation patterns may be further enhanced by the relative levels of constraint across settings, as based on formal organizational system characteristics, path-dependent learning processes, or environmental factors.

Our prediction of compensation based on moral regulation *complements* rather than replaces one rooted in the consistency argument. Both types of predications can be accurate, as both types of arguments apply when considering together personal aspirations, situational influences, and institutional norms. Indeed, the moral regulation and consistency concepts have a similar basis in psychological and organizational processes; thus in principle they are compatible. Members of the business elite are motivated to reduce the discomfort associated with psychological discrepancies, are guided and constrained by experiential learning, and are influenced by environmental expectations. The difference lies in the extent to which individuals integrate or compartmentalize the domains and roles they inhabit. Based on the moral regulation line of reasoning, we state the following hypothesis regarding how resources are allocated in a foundation influenced by the same member of the business elite, the firm's CEO:

H3: Foundations with a newly elected CEO-director will increase grantmaking to causes dissimilar from those emphasized by the CEO's corporation CSR performance

METHODS

Sample and Data

The sample we use comprises all companies listed in the S&P 500 list during the period from 2003 to 2011. We use annual reports and 10-K filings to code a CEO's tie to a nonprofit foundation board. As secondary sources to link foundations to corporations through a CEO's trusteeship, we used *Hoover's, People, Forbes,* and *Business Week.* We used the *Foundations Directory Online (FDO)* database created

by the Foundation Center to collect the names of foundation directors and to confirm the year in which a CEO was added to the board. After accounting for incomplete data, our panel yielded 677 corporations linked to 309 nonprofit foundations through 1,109 CEOs.

We used the *FDO* database to code variables at the level of the foundation. *FDO* is a leading online funding-research tool developed by the Foundation Center, a national nonprofit service organization founded over 50 years ago to help U.S. foundations become more visible to the general public. The *FDO* lists all U.S. foundations and has compiled their tax files (i.e., 990 forms) since 2003. In addition to general financial information, a foundation's tax file covers the sources and destinations of a foundation's funds, as well as the composition of the foundation's board of trustees. The Foundation Center uses the tax files to consolidate grants disbursed by foundations to 25 social causes (listed in the Supplementary file). Because not all foundations in question have their grants consolidated, we coded manually 77 foundations.

We used the *KLD GlobalSocrates* database to obtain a company's CSR performance indicators, disaggregated by domain. We coded the presence of a corporate foundation or giving program from the *National Directory of Corporate Giving* published by the Foundation Center until 2012, in paper format. To capture the possibility that a CEO's actions are instrumental rather than values-based, we derive a control based on the CSR materiality map created by the Sustainability Accounting Standards Board (SASB). Further, we collected corporate-level financial data, as well as information on boards of directors and top executives from the *WRDS Compustat*, *Execucomp*, and *Risk Metrics* databases, and from firms' annual proxy statements and annual reports. Finally, we derive media sentiment using articles published by U.S. newspapers, which we retrieved through *LexisNexis*.

Analytic Strategy and Measurement

We created: (1) a set of dependent variables reflecting stages of CEO foundation involvement, from joining a foundation's board (H1) to selecting among potential candidates (H2) to influencing the foundation's future allocation of resources to different philanthropic causes (H3), and (2) a subset of variables reflecting personal, corporate, and foundation-level factors. The sequential nature of the decisions we predict allows us to address endogeneity concerns related to self-selection with a model that considers

first whether the CEO joins <u>any</u> foundation (H1) as the first stage of a Heckman two-stage model where foundation selection (H2) and influence (H3) are predicted as the second stage.

Dependent variables

H1 predicts the likelihood that a CEO will join the board of trustees of any nonprofit foundation. We code our first dependent variable *foundation board addition* as a dummy variable that takes the value of "1" if a CEO of any of our S&P 500 firms is listed for the first time on the board of trustees of *any* foundation during our time frame, and takes the value of "0" if a CEO was a trustee of the foundation previously or if the CEO is not part of any foundation board of trustees during the focal period. Out of 1,109 CEOs in our database, 233 CEOs joined a foundation for the first time during 2003-2011. Accounting for a one-year lag structure, our cross-sectional panel yielded 3,580 CEO-year links.

To test H2 and H3, we need to create a measure of similarity in social cause priorities, based on corporation KLD scores and foundation grantmaking. We present a detailed account of the process in the Supplementary file, and a shorter description here. To create corresponding CSR and philanthropic social domains, we mapped the 25 philanthropic social causes provided by FDO onto the KLD dimensions of *Environmental, Human Rights, Community,* and *Employees & Diversity* (Supplementary file). In the process, we merged the KLD dimensions of Employee and Diversity into one domain, due to their similarity and the tendency of some FDO categories to fit both KLD dimensions. In post-hoc analyses (Supplementary file) we test the effects of varying the matching of some FDO causes to KLD dimensions, since this procedure requires a degree of judgment and entails unavoidable imprecisions. Given the novelty of the foundation data used in this paper, the Supplementary file provides information on grantmaking across the four social dimensions for the top 40 foundations in our dataset, split equally between the two main types of independent foundations and charities.

H2 predicts that CEOs select among potential foundations by seeking dissimilarity between foundations' social causes and their firms' CSR strengths at the time that they join the foundation's trustee board. Thus we use as a dependent variable a measure of *similarity in social cause priorities* at foundation selection, calculated as the inverse Mahalanobis distance between the corporate CSR strengths and

foundation allocations across the four social domains. The distance measure is standardized by year, reflecting the relevant risk-set of foundations at that point. The dataset thus includes all possible CEO-foundation dyads for each year in our sample, for a total of 955,307 annual dyadic observations. To give an example, say that CEO John Smith (JS) joined foundation ABC in year 2005. Because there are 309 foundations that JS could have joined in 2005 (the 233 CEOs joined 309 foundations during the period 2003-2011), we created 309 possible CEO-foundation dyads for year 2005: JS-foundation₁, JS-foundation₂, [...], JS – foundation₃₀₉. We repeated this procedure for all CEOs and all years.

H3 concerns how the social causes pursued by the foundation at the time of CEO joining will change after that leader's arrival. In other words, we seek to understand how a CEO's joining will affect the foundation's grantmaking in the future. To test H3 we use the same dyadic similarity measure as in H2, but we estimate a linear growth curve model of similarity, using *CEO time on foundation board* as our independent time variable (as described in the independent variables section). For ease of interpretation, we denote the dependent variable as *similarity in future social cause priorities* after foundation selection. Because we focus only on CEOs who are trustees of a foundation board during the period under examination, the panel for testing H3 consists of all 244 CEO that became foundation directors, yielding 846 CEO-foundation-year observations.

Independent variables

To test H1 (about likelihood to join a foundation board), we follow Flammer and Luo (2017) and measure the focus of a firm's CSR efforts using the index of *KLD* strengths.⁴ We summed the total number of strengths *KLD* awarded the firm in each of the four domains, then divided this sum by the maximum number of strength points that *KLD* can allocate to each domain. Because CSR strengths may vary by industry, we adjusted the measure for a given firm based on the average CSR strength for its industry (SIC2). The independent variable *CSR strengths* is the resulting standardized CSR strengths score.

⁴ As discussed by Flammer and Luo (2017: 169), an alternative measure of CSR performance that takes into account a firm's CSR concerns is methodologically questionable. Therefore, we focus on CSR strengths as our independent variable (but control for *materiality of CSR concerns*).

To test H2 (related to selection of a particular foundation board), we used the data set of all possible 955,307 annual corporation-foundation dyads and regressed a set of covariates on the similarity between foundation and corporate causes, with the substantive independent variable being a dummy variable of the creation of a tie for that dyad. We name this variable *CEO choice (Corp. – Found. Link)*.

To test H3 (about change in foundation priorities after selection), we used the same analytic strategy and specification. The dependent variable is identical to that used in testing H2, but observed starting the year a CEO joined a foundation's board for as long as the CEO remained part of that board. The independent variable is *time since CEO joined*, effectively estimating a linear growth curve model of similarity.

Control variables

To test H1, we included a number of CEO- and firm-level covariates, as controls. Since H1 examines the likelihood to join *any* foundation, we cannot include foundation-level controls. At an individual level, the decision to step outside the corporate domain may be unlikely for a newly appointed CEO, so we control for *CEO tenure*⁵. Recent empirical research also suggests that women appear to be more charitable than men (Andreoni and Vesterlund 2001), so we control for *Woman CEO. CEO duality* is a common governance structure studied in the context of CSR, so we included this measure as a dummy variable. Finally, we control for *CEO previous director position* in any foundation. Spending time in a foundation captures the personal tendency to be involved in philanthropy more accurately than the alternative of simply donating money (Reed et al. 2007).

At a corporate level, we need to control for the possibility that CEOs would join a foundation when the corporation is doing particularly poorly in terms of social responsibility on dimensions that are specific to their operations (Eccles et al. 2014)⁶⁷. We operationalize the covariate *materiality of CSR*

⁵ CEO age is highly correlated with CEO tenure and its exclusion does not affect results.

⁶ Note also how the normative or institutional CSR listed in the Supplemental file (i.e., CSR initiatives related to secondary stakeholders such as the natural environment, local communities, and broader society) covers most of FDO dimensions but differs from "instrumental CSR" (i.e., CSR initiatives related to primary stakeholders such as consumers and suppliers; see Flammer and Luo (2017) and Godfrey et al. (2009) for research using this distinction.

⁷ In separate analyses, we control for CSR concerns (both instead and in addition to materiality of CSR concerns) and results remain the same. The two measures are moderately correlated at 0.40, but CSR concerns is not a significant predictor.

concerns using the SASB proprietary Materiality Map (described in detail by Khan, Serafeim, and Yoon (2016)), which identifies material sustainability issues on an industry-by-industry basis. First, we coded the industry of each of our company based on SASB's Sustainable Industry Classification System (SICS). Next, we identified which of the SASB issues are material for each industry (SICS) and followed Khan et al. (2016) to match each KLD topic with an SASB issue (see Supplementary file). This allowed us to finally code, for each company, the number of concerns that are likely to be material. Further, CEOs from corporations that have already established a *corporate foundation* may find these entities suitable for the expression of their values and thus have a lower probability of joining nonprofit foundations. We also control for factors that may affect the discretion that CEOs have to pursue social priorities in the firm: *corporate size* using asset value, *corporate performance* using return on sales, and *resource slack* as the ratio of income before taxes and interest charges to interest charges (Bromiley 1991). *Board independence*, measured as the ratio of outside directors to board size, may limit CEO discretion.

Joining a foundation may be driven by the media attention received by the CEO's corporation. We used *LexisNexis* to retrieve all articles published in U.S. newspapers and operationalized *positive media attention* following the procedure established by several prior studies (Bednar 2012; Pfarrer et al. 2010; Tausczik and Pennebaker 2010); they used the Linguistic Inquiry Word Count (LIWC) content analysis program to construct an indicator of the tenor of media coverage based on the Janis-Fadner coefficient of imbalance, which assesses the relative proportion of positive to negative articles and also accounts for the total volume of articles (Deephouse 2000). All controls are lagged, with the exception of *Woman CEO*.⁸

When predicting *similarity in social cause priorities* at foundation selection (H2) and *similarity in future social cause priorities* after foundation selection (H3), we created a number of dyadic covariates to account for alternative dimensions of similarity beyond social priorities: *board size, number of executives, size* (using asset value), and *revenues*.⁹ The similarity measure is the inverse of the Mahalanobis distance

⁸ In separate analyses, we also controlled for *board size, sales*, and *ROA*. These controls are not significant nor influence results. ⁹ Note that we could not control for several factors taken into account when testing H1 and that are already included in dyadic similarity measures: *corporate size* and *board independence*. Controlling for *CEO previous trustee position* is also not possible because the panel used to test H2 and H3 is formed of CEO-foundation dyads (i.e., the CEO needs to be part of a foundation)

between standardized values for equivalent variables for companies and foundations. We also created a measure of *geographic proximity* using the 5-digit ZIP postal codes of the headquarters of the foundation and an executive's corporation. We calculated geographic proximity using an established formula¹⁰ for this measure (Sorenson and Stuart 2001).

In terms of non-dyadic controls, we control for the same corporate-level factors of *corporate* foundation, corporate performance, resource slack, positive media attention, and materiality of CSR concerns, as well as the individual-level factors of CEO tenure, Woman CEO, and CEO duality, as in H1. In addition, we account for the possibility that characteristics of the foundations may predict similarity in social cause priorities. We control for *foundation grantmaking diversity* using the entropy measure (Palepu 1985) that equaled Σ (*Pi* * *ln1Pi*), where *Pi* is the percentage of money donated to a particular social cause out of total grantmaking to all causes. This measure accounts for two elements of diversification: (1) the number of social causes that received grants, and (2) the relative importance of each (Palepu 1985), based on the amount granted. CEOs may be more likely to join foundations with less optimal board sizes: either because a trustee position is not filled (information to which we do not have access) or because the number of trustees is smaller than those at peer foundations. Therefore, we control for foundation relative size of board of trustees using the count of trustees on the foundation's board adjusted by average number of trustees across all foundations in our dataset (updated each year). As we mentioned, we focus on nonprofit foundations categorized as public charities and independent foundations. While the main difference between the two types is their funding sources¹¹, other foundation-specific factors might influence CEO selection of (H2) and influence over (H3) foundations. We illustrate main differences between the two types in the Supplementary file and control for *foundation type* with a dummy variable that takes the value of "1" for independent foundations and "0" for public charities. We include two industry-level (SIC2-based) covariates, industry CSR strengths and industry CSR concerns, which we calculate as the average CSR

¹⁰ $d_{ij} = C \{ \arccos[\sin(lat_i)\sin(lat_j) + \cos(lat_i)\cos(lat_j)\cos(|long_i - long_j|)] \}$, where *latitude* (*lat*) and *longitude* (*long*) are measured in radians and *C* represents a constant based on the radius of the sphere that converts the result into linear units of measure. To convert the result to miles on the surface of the Earth, we use C = 3,437.14.

¹¹ In our dataset, we found that it is very rare that a CEO or his/her company would donate money to the foundation.

strengths and concerns of firms in the same industry as our focal company (updated each year); we also include the Inverse-Mills ratio that results from testing H1.

Analyses and Results

Our results show that moral regulation drives CEOs' choice to join a foundation, the selection of foundations, and subsequent influence on foundation's grantmaking. Results are remarkably robust in terms of direction of effects and significance across various specifications. The effect of the control *materiality of CSR concerns* is especially intriguing, and we discuss it in the Discussion section.

H1 predicted a CEO's choice to join a foundation. We present descriptive statistics and correlations of variables used to test H1 in table 1. Table 2 shows the results of our analysis predicting when an S&P 500 firm's CEO will join a foundation's board. We specify this analysis as a population-averaged time series logit model with robust standard errors and a 1-year lag structure. Results in model 2 of table 2 strongly support the moral regulation predictions of behavioral complementarity (p < 0.01).

H2 and H3 predicted a CEO's foundation selection and subsequent change in foundation priorities, respectively. Table 3 presents descriptive statistics and correlations for variables used in testing H2 and H3. As we mentioned, we test H2 (about selection) using the risk-set of all possible annual corporation-foundation dyads, and we regressed a set of covariates onto similarity between foundation and corporate causes. *The substantive independent variable is a dummy variable of the creation of a company-foundation tie via the CEO*. We specified these analyses as mixed time series regressions. The results of this analysis are reported in table 4 model 2. Since the dependent variable is dyadic similarity, a significant and negative effect means that out of all possible company-foundation dyads that the CEO could have chosen from, they chose one that is less similar in terms of social causes pursued by the corporation versus those pursued by the foundation. Results indicate that CEOs that do join a foundation board will choose foundations with different priorities than their company's CSR strengths (p < 0.01)¹².

¹² It should be noted that p-values are of limited value with a million dyadic observations, a complex data structure, and a combination of limited and continuous independent variables

To test H3, we used the same analytic strategy and specification. However, using the independent variable of *time since the CEO joined* a foundation's board allows us to estimate effectively a linear growth curve model of similarity. A negative significant coefficient means that the longer the CEO is on the board of trustees of the foundation, the greater the divergence between foundation and firm social causes. This regression is run only on those CEO-foundation dyads that had an actual tie, so the CEO-foundation link variable would always be 1 and the cross-sectional panel would amount to 846 CEO-foundation-year observations. The main model of these analyses is reported in table 5 model 2. The CEO's influence is in the direction of social causes dissimilar from those pursued by their corporation (p < 0.05), lending support for H3.

-- Insert Tables 1 through 5 about here --

Post-hoc Analyses and Robustness Checks

The results of all post-hoc analyses and robustness checks are presented in this paper's Supplementary file and discussed below. We tested H1 using a population-averaged time series logit model with robust standard errors and a 1-year lag structure. Implementation using random effects, general estimation equations, and a 1-year autoregressive error structure closely replicated the results presented in table 4. Further, when testing H1, we decomposed the independent variable into its components *Environmental, Human Rights, Community,* and *Employees & Diversity.* Results show that effects are driven primarily by the *Environmental* and *Human Rights* dimensions. Regarding H3, we decomposed the dependent variable of similarity in future social cause priorities into its *Environmental, Human Rights, Components.* Again, as for H1, these tests show that CEO-directors influence the social cause priorities of *Environmental* and *Human Rights.* Note that decomposing the dependent variable of similarity at selection (H2) would not be informative in a test with a million observations and a cross-sectional panel. Finally, we varied the inclusion of foundation categories that might not map as accurately onto the *KLD* dimensions. For example, although spending on Education is a reported CSR practice by many firms, Education is not represented unambiguously in *KLD*, reason why we

included it under *Community* in post-hoc analyses. Similarly, we included Health Organizations and Arts and Culture under *Community*, and we included Religion under *Human Rights*. Results were unaffected.

DISCUSSION

This paper examines the psychological foundation of business elites' contributions to the social good across multiple roles and domains. Although work adopting a normative approach to CSR (versus an instrumental approach (Flammer and Luo 2017))has examined the idea that top executives influence a corporation's CSR orientation (e.g., Banerjee 2001; Buchholtz et al. 1999), less is known about how individuals' values and orientations are expressed outside the corporations they run. This paper's primary contribution is to advance research on managerial cognition beyond the traditional focus on demography and executive power (Golden and Zajac 2001; Hambrick et al. 1996), specifically to include moral facets of their work—CSR and independent philanthropy—while reexamining the theory's foundations in social and organizational psychology. It also extends research on how individual leaders shape organizational policies, by proposing and testing a more indirect way in which business elites' belief structures and values influence their actions; that is, in addition to a simple translation of values and decision-making biases into behaviors, executives also develop and manage overall moral aspirations, which they pursue in a more situational, flexible way.

The mental accounting model of executive behavior outlined in this paper contrasts with the more commonly evoked model of cognitive consistency. We would not, of course, discount consistency as a central dimension of managerial cognition research. First, the mental accounting model of moral regulation allows for 'consistent' overall aspirations that vary between individuals (e.g., in terms of how extensive a contribution to the social good an executive desires to make), and addresses more so the tactical realization of these than higher-level preferences. Second, it is conceivable that the morally laden decision-making around CSR and philanthropic activity prompts the more cognitively effortful processes of mental accounting, while more mundane or routine behaviors follow habituated response patterns. Third, research on the compensatory phenomenon, more generally, has shown that compensation is not circumscribed in

one area of commitment only, and moreover that it is possible for compensation to be triggered in divergent areas of interest (Baumeister and Jones 1978; Gollwitzer et al. 1982). Therefore, the contribution of this study is not least to invite further empirical research in this realm, rather than to offer a decisive test of competing accounts of managerial cognition.

This study has additional implications for governance research, and encourages a broader conceptualization of business elites that considers executives' influence on private sector boards, as connected with their influence in the nonprofit sector—in our case, nonprofit foundations. While, generally, personal priorities motivate elites to undertake (or avoid) active governance roles in distinct institutional domains, the exact mechanism we propose is counterintuitive if one expects leaders to be consistent in the choices they make). We find that CEOs of firms with a strong CSR record are unlikely to join an independent foundation (moral licensing), while those who lack in such strengths are more likely to do so (moral compensation). Moreover, those who do cross sectors seek complementary causes rather than replicating their corporations' strengths. The limited research on these connections is surprising, given the relevance of nonprofit foundations as an institutional field, and the similar advantages and influence foundation board appointments provide compared to corporate boards (Useem 1980). Future research in this realm could examine the relative characteristics, benefits, and drawbacks of serving on newly public firms, private firms, or NGOs, along with whether top executives actively manage their portfolio of board memberships across all domains rather than only within the for-profit sector. What is clear from this study is that decisions *across domains* are *interdependent*, rather than isolated from one another.

Although this paper did not examine directly the strategic advantages conferred by foundation board appointments to directors and firms, consider the provocative example of American Forest Foundation from our dataset. Its board of trustees has executives from two unrelated companies— Weyerhaeuser Company and MeadWestvaco—on its trustee board. These two corporations also engaged in intensive business dealings with each other between 2005 and 2013, ranging from credit facilities to land and business line sales/purchases. While we cannot imply that the two firms benefited from their intersection on the foundation's board (as this would require a separate study that first identifies the largest foundations, their board composition, and then link these foundations with corporations), this example suggests that foundations' boards may be a conduit for information dissemination and, more generally, play an important role in shaping strategic decisions and outcomes for firms much like the often-studied domain of corporate boards does. Relatedly, we wish to note that accounting for instrumental actions in the domain of CSR has typically been a point of contention in CSR. Judging from the effect of our control for materiality across all three predictions, CEOs of firms with CSR concerns that are also material in the firms' industry are more likely to join nonprofit foundations and will choose foundations that spearhead social causes dissimilar from the firm's CSR strengths. These effects are intriguing and encouraging for future research that can examine more closely whether CSR actions reflect instrumental, values-based, or impression management decision-making. More generally, we see great promise for future research that could examine more closely the significance and role of non-profit boards for the corporate domain; examining the characteristics, benefits, and drawbacks of board ties across domains, and the conditions under which the broader cross-domain portfolio of board ties shape firm decisions and outcomes.

For the study of business elites' role in society, the question of whether individuals who can simultaneously influence corporations and foundations tend to align the social responsibility priorities of each is of substantive interest. Our results suggest that CEOs may see philanthropic activities as opportunities for realizing moral goals that they cannot or do not want to emphasize in their business leadership roles. Our finding of misalignment across social domains adds a dynamic that had not yet been considered in studies that were concerned primarily with the collective interest of the managerial elite (Davis and Mizruchi 1999; Useem 1996). The pursuits of corporate executives are, however, multidimensional, such that highly coordinated behavior may still exist in the advancement of shared private sector business, but not in the personal and discretionary engagement in social responsibility.

Like all empirical studies, this one has limitations that offer fruitful directions for future research. We do not observe directly the psychological mechanisms we propose, since this would necessitate a different kind of study than ours. Further, we use a sample of firms that is limited to S&P 500 corporations, and lack full information on foundation board members other than the CEOs studied. We indicated in our introduction that finding compensation in business elite social values-based priorities across institutional domains would indicate that elites have a less far-reaching implication for societal outcomes. We would also suggest however, a degree of caution in interpreting the societal implications of our findings, because we do not know the threshold beyond which donations' magnitude for social causes would seize to be effective. Close studies of decision-making processes and practices in firms and foundations would shed light on how and why executives influence social causes, and we expect research on the cognitive foundations of executive influence to take important steps forward, with a significantly expanded empirical and theoretical footing. Not finding compensatory or consistency effects for the social dimensions of *Community*, and *Employees & Diversity* (see Supplementary files) may be due to the lower public acknowledgement of these dimensions versus the dimensions of Environment and Human rights (Jordan et al. 2011), leading us to suggest future research on the role of infomediaries and social approval (Bundy and Pfarrer 2015; Zavyalova et al. 2012). Finally, social-psychological research suggests that taking compensatory or consistent actions depends on the timing of prior behavior because timing modifies construal levels from concrete (for recent actions) to abstract (for distant actions), and that the length of future behavior depends on the magnitude of prior actions (Aquino and Reed 2002; Conway and Peetz 2012; Reed et al. 2007). Thus, future research should examine how the timing and magnitude of prior behavior may impel CEOs from firms with a specific CSR foci to take on other actions in the firm.

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Table 1. Descriptive statistics and correlations (Hypothesis 1)													
	Mean S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1 Foundation board addition	0.02 0.15												
2 CSR strengths	1.88 3.32	-0.02											
3 CEO tenure	7.04 6.09	0.00	-0.09										
4 Woman CEO ¹	0.02 0.14	0.00	0.11	-0.04									
5 CEO duality	0.68 0.47	0.03	0.12	0.20	-0.04								
6 CEO previous trustee position	0.32 0.47	0.03	0.13	0.10	0.05	0.14							
7 Materiality of CSR concerns	0.68 1.14	0.06	0.07	-0.07	0.00	0.11 (0.05						
8 Corporate foundation	0.49 0.50	0.03	0.30	-0.15	0.06	0.10 (0.03	0.10					
9 Corporate size	9.21 1.43	0.02	0.45	-0.06	-0.01	0.18 (0.18	0.17	0.34				
10 Corporate performance	0.09 0.17	0.03	0.02	0.08	0.03	0.04 (0.03	-0.07	-0.03 0.	04			
11 Resource slack	5.93 0.11	0.00	0.00	0.02	-0.03	-0.01 (0.02	0.00 ·	-0.02 0.	00	0.02		
12 Board independence	0.84 0.10	0.01	0.13	-0.10	0.02	0.06 (0.04	0.08	0.15 0.	15	0.01	-0.01	
13 Positive media attention	0.65 0.26	-0.03	0.09	-0.02	0.02	0.00 (0.02	0.03	0.09 0.	09	0.04	0.00	0.04

	TABLES AND FIGURES	
T.1.1. 1	Description statistics and some lations (II-model and the signal	`

N = 3,580, ¹ All variables except *foundation board addition* and *woman CEO* are lagged.

Table 2. Regression Estimates H1, CEO Joining a Foundation Board (PA time series logit model)

	Model 1	Model 2
CSR strengths		-2.150**
		(0.036)
CEO tenure	0.069	-0.055
	(0.021)	(0.021)
Woman CEO	0.117	0.311
	(0.630)	(0.613)
CEO duality	1.160	1.291
	(0.305)	(0.305)
CEO previous trustee position	0.592	0.697
	(0.257)	(0.254)
Materiality of CSR concerns	1.781**	1.748**
	(0.085)	(0.084)
Corporate foundation	1.437 +	1.687*
	(0.242)	(0.243)
Corporate size	-0.158	0.627
	(0.096)	(0.105)
Corporate performance	1.483**	1.453**
	(0.477)	(0.475)

Resource slack	0.267	0.260
	(0.229)	(0.221)
Board independence	0.312	0.409
	(1.134)	(1.120)
Positive media attention	-1.340+	-1.235+
	(0.419)	(0.411)
Constant	-6.632***	-7.396***
	(1.840)	(1.885)
Observations	3580	3580
Wald chi2	31**	40***

All except Constant are standardized beta coefficients. Robust standard errors in parentheses. Two-tailed tests. + p < 0.1 * p < 0.05 ** p < 0.01 *** p < 0.001.

Table 3. Descriptiv	ve statist	ics and	correla	ations	(Нурс	otheses	s 2&3)				
	Mean	SD	1	2	3	4	5	6	7	8	9
1 Similarity in social cause priorities	-1.99	2.03									
2 CEO choice (Corp Found. Link	2.82	2.05	0.00								
3 Time since CEO joined	0.00	0.03	0.00	0.04							
4 Similarity in board size	-1.12	0.81	0.00	-0.08	-0.01						
5 Similarity in number of executives	-1.07	0.84	0.01	-0.07	0.00	0.51					
6 Similarity in size	-0.52	1.31	0.47	0.12	0.00	0.07	0.00				
7 Similarity in revenues	-0.71	1.24	0.33	0.09	0.00	0.13	0.10	0.48			
8 Geographic proximity	1011.24	746.05	-0.04	-0.05	-0.03	0.00	0.00	-0.03	-0.02		
9 Corporate foundation	0.53	0.50	-0.10	0.02	0.00	0.01	0.00	-0.07	-0.08	-0.04	
10 Corporate performance	0.09	0.29	0.00	-0.04	0.00	-0.02	0.00	0.04	0.01	0.01	-0.02
11 Resource slack	5.94	0.05	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01	-0.02
12 Positive media attention	0.65	0.25	-0.03	0.04	0.00	0.00	-0.01	-0.01	0.01	0.00	0.09
13 Materiality of CSR concerns	0.71	1.16	-0.03	-0.04	0.00	0.06	-0.06	0.04	-0.10	-0.04	0.09
14 CEO tenure	8.01	6.01	0.04	0.17	0.01	-0.08	0.00	0.03	0.03	0.03	-0.17
15 Woman CEO	0.02	0.14	-0.03	-0.07	0.00	0.03	0.00	0.02	0.00	-0.01	0.06
16 CEO duality	0.71	0.45	-0.04	0.15	0.01	0.02	0.00	-0.02	-0.02	-0.09	0.12
17 Foundation grantmaking diversity	0.83	0.80	-0.11	0.03	-0.01	0.14	0.13	-0.09	-0.02	0.00	0.00
18 Foundation relative size of board of trustee	1.00	1.27	-0.05	0.00	0.01	-0.57	-0.56	0.03	-0.11	-0.02	0.00
19 Foundation type	0.57	0.49	0.02	0.07	-0.01	0.16	0.15	-0.07	0.03	0.03	0.00
20 Industry CSR strengths	1.50	0.71	-0.09	0.11	0.00	0.01	-0.02	-0.03	-0.10	-0.04	0.16
21 Industry CSR weaknesses	2.34	0.94	-0.02	0.11	0.00	0.08	-0.02	0.03	-0.12	-0.04	0.07
	10	11	12	13	14	15	16	17	18	19	20
11 Resource slack	0.01										
12 Positive media attention	0.03	-0.01									
13 Materiality of CSR concerns	-0.02	0.00	0.03								
14 CEO tenure	0.04	0.02	-0.01	-0.06							
15 Woman CEO	0.01	-0.07	0.01	-0.01	-0.04						
16 CEO duality	0.03	0.01	0.00	0.11	0.17	-0.05					
17 Foundation grantmaking diversity	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
18 Foundation relative size of board of trustee	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.32			
19 Foundation type	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	-0.57		
20 Industry CSR strengths	-0.04	-0.01	0.04	0.21	-0.07	0.05	0.07	0.00	0.00	0.01	
21 Industry CSR weaknesses	-0.03	0.02	0.01	0.48	-0.07	0.02	0.07	0.00	0.00	0.01	0.51

N = 955,564 when testing H2; N = 849 when testing H3

	Model 1	Model 2
CEO choice (Corp. – Found. Link)		-0.003**
		(0.083)
Similarity in board size	-0.027***	-0.027***
	(0.003)	(0.003)
Similarity in number of executives	-0.009***	-0.009***
	(0.002)	(0.002)
Similarity in size	0.321***	0.321***
	(0.002)	(0.002)
Similarity in revenues	0.251***	0.251***
	(0.002)	(0.002)
Geographic proximity	-0.033***	-0.033***
	(0.000)	(0.000)
Corporate foundation	-0.050***	-0.050***
	(0.005)	(0.005)
Corporate performance	0.009***	0.009***
	(0.004)	(0.004)
Resource slack	-0.001**	-0.001**
	(0.022)	(0.022)
Positive media attention	-0.010***	-0.010***
	(0.005)	(0.005)
Materiality of CSR concerns	-0.037***	-0.037***
	(0.002)	(0.002)
CEO tenure	-0.032***	-0.032***
	(0.000)	(0.000)
Woman CEO	-0.028***	-0.028***
	(0.020)	(0.020)
CEO duality	-0.034***	-0.034***
	(0.005)	(0.005)
Foundation grantmaking diversity	-0.077***	-0.077***
	(0.003)	(0.003)
Foundation relative size of board of trustee	-0.041***	-0.041***
	(0.003)	(0.003)
Foundation type	0.060***	0.060***
	(0.008)	(0.008)
Industry CSR strengths	-0.064***	-0.064***
	(0.003)	(0.003)
Industry CSR weaknesses	0.020***	0.020***
	(0.002)	(0.002)
Inverse-Mills ratio	-0.053***	-0.053***
	(0.003)	(0.003)
Observations	955307	955307
Wald chi2	157075***	157085***
R2(overall)	0.25	0.25
Auto-corr Coef.	0.158	0.158

Table 4. Mixed Time Series Regression Estimates H2, CEO Selection of	of
Foundation (Similarity with CSR Strengths)	

Standardized beta coefficients. Standard errors in parentheses Two-tailed tests. + p < 0.1 * p < 0.05 ** p < 0.01 *** p < 0.001*p*-values are of limited value with a million dyadic observations, a complex data structure, and a combination of limited and continuous independent variables.

	Model 1	Model 2
Time since CEO joined		-0.062*
		(0.026)
Similarity in board size	0.047	0.067
	(0.086)	(0.088)
Similarity in number of executives	-0.067+	-0.072+
	(0.075)	(0.075)
Similarity in size	0.162***	0.171***
	(0.074)	(0.074)
Similarity in revenues	0.126*	0.130**
	(0.106)	(0.106)
Geographic proximity	0.061	0.059
	(0.000)	(0.000)
Corporate foundation	-0.034	-0.020
	(0.168)	(0.170)
Corporate performance	0.016	0.014
	(0.088)	(0.088)
Resource slack	-0.005	-0.005
	(3.437)	(3.430)
Positive media attention	-0.026	-0.024
	(0.165)	(0.165)
Materiality of CSR concerns	-0.044	-0.058
	(0.066)	(0.066)
CEO tenure	0.119**	0.155***
	(0.012)	(0.012)
Woman CEO	-0.086+	-0.091+
	(0.581)	(0.581)
CEO duality	-0.105**	-0.094*
	(0.179)	(0.181)
Foundation grantmaking diversity	-0.132**	-0.136**
	(0.116)	(0.116)
Foundation relative size of board of trustee	-0.001	0.019
	(0.086)	(0.087)
Foundation type	0.106	0.114 +
	(0.257)	(0.257)
Industry CSR strengths	-0.140***	-0.128***
	(0.085)	(0.086)
Industry CSR weaknesses	0.009	0.027
	(0.073)	(0.074)
Inverse Mills ratio	-0.085*	-0.083*
	(0.122)	(0.121)
Observations	846	846
Wald chi2	101***	106***
R2(overall)	0.23	0.24
Auto-corr Coef.	0.209	0.209

Table 5. Mixed Time Series Regression Estimates H3, CEO Influence on Foundation Future Resource Allocations (Similarity with CSR Strengths)

Standardized beta coefficients. Standard errors in parentheses Two-tailed tests. + p<0.1 * p<0.05 ** p<0.01 *** p<0.001

SUPPLEMENTARY FILE

Analytic strategy to operationalize similarity in social cause priorities (H2 & H3)

While philanthropic and CSR causes reflect identical societal issues, the databases recording them—the FDO and KLD, respectively—report them in different ways. Therefore, we took several steps to operationalize similarity between philanthropic and CSR priorities. First, the FDO database uses the foundation's tax files to consolidate allocation of grants into 25 philanthropic categories (FDO 2009; NCFP 2006), and does so for 75% of our sample's total of 309 foundations. To measure philanthropic focus for the remaining foundations, we used the tax files to determine the dollar amounts granted by foundations to each of the 25 philanthropic categories (this information can span 100 pages in the tax file). These categories range from causes such as the rule of law to environmental and employment issues. We used the descriptions of the donations and recipients in the tax file to categorize each donation under one of the 25 philanthropic causes, sum the amounts granted for each cause, and then calculate the monetary weight of each cause in the foundation's overall annual grantmaking. Descriptive characteristics of nonprofit foundations are presented in table A.

Next we created corresponding categories of causes for both domains. As we mentioned, the FDO uses a total of 25 dimensions of social causes. KLD uses six dimensions of social responsibility: Environment, Human Rights, Community, Diversity, Employee Relations, and Corporate Governance. The KLD dimension of Corporate Governance does not have an FDO equivalent, so we did not include it in the similarity measure. To create corresponding philanthropic and CSR domains, we mapped the 25 philanthropic social causes provided by FDO onto the KLD dimensions (table B). In the process, we merged the KLD dimensions of Employee and Diversity into one domain (i.e., Employee & Diversity), due to their similarity and the tendency of some FDO categories to fit both KLD dimensions. In post-hoc analyses reported below (tables C and D) we re-test H2 and H3 to see the effects of varying the matching of some FDO causes to KLD dimensions, since this procedure requires a degree of judgment and entails unavoidable imprecisions.

The final CSR strengths and foundation allocations measures we used to calculate the similarity dependent variables (which, as we mentioned, uses the Mahalanobis distance between the two) consist of two sets of four variables each, representing the four dimensions of social good: *Environmental*, *Human Rights*, *Community*, and *Employees & Diversity* (again corresponding closely to the recently popular "ESG"—environmental, social, and governance—dimensions but separating the social dimension into employment- and non-employment-based social impact). Tables E and F illustrate foundation grantmaking allocations across the four social dimensions (using unstandardized values for the top 20 independent foundations and the top 20 charities, as primary types of foundations) with the help of heat maps. Of course, we standardize these measures before operationalizing our final similarity dependent variable.

This supplementary file further contains the following illustrations and tables mentioned in the post-hoc analyses section of the manuscript: table G showing the matching between KLD and SASB sustainability indicators, table H showing the test of H1 using alternative statistical specifications, and tables I and J showing tests of H1 and H3 on each CSR dimension of *Environmental*, *Human Rights*, *Community*, and *Employees & Diversity*.

SUPPLEMENTARY FILE TABLES

Characteristics	Independent foundation	Public charity
Min of board size	0	0
Max of board size	55	174
Min of contribution diversity	0	0
Max of contribution diversity	2.64	1.99
Min of count causes	0	0
Max of count causes	26	19

Table A. Characteristics of nonprofit foundations (study panel)

Table B. Matrix of FDO (philanthropic topics) and KLD (CSR topics) match

KLD dimensions	Environmental	Human Rights	Community	Diversity & Employees	Other FDO dimensions
	Animals/Wildlife	Civil/Human Rights	Community Development	Employment	Social Sciences
	Environment	International/Foreign Affairs	Crime/Law Enforcement		Recreation
	Agriculture/Food	Public Affairs	Youth Development		Science
			Human Services		Religion*
FDO Dhilonthronia			Mental Health		Arts and Culture**
dimensions			Safety/Disasters		Medical Research
unitensions			Health		Other
			Philanthropy/Voluntarism		Health Organizations**
			Housing/Shelter		Education**
					Media/Communications

Mapping developed by the first author, reproduced by the second author, and validated by several nonprofit practitioners.
"Other FDO dimensions" contains philanthropic social causes which could not be matched to KLD

3. When testing H2 and H3, we varied the inclusion of "Other FDO dimensions" under the KLD dimensions of Human Rights (denoted with "*") and Community (denoted with **). Results are essentially the same.

	Model 1	Model 2	Model 3	Model 4	Model 5
		Education	Arts and	Health org.	Religion
	Paper	under	culture under	under	under Human
		Community	Community	Community	rights
CEO choice (Corp. – Found. Link)	-0.003**	-0.003**	-0.003**	-0.003**	-0.003**
	(0.083)	(0.080)	(0.080)	(0.084)	(0.080)
Similarity in board size	-0.027***	-0.028***	-0.028***	-0.026***	-0.028***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Similarity in number of executives	-0.009***	-0.009***	-0.009***	-0.008***	-0.008***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Similarity in size	0.321***	0.345***	0.343***	0.353***	0.341***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Similarity in revenues	0.251***	0.239***	0.246***	0.232***	0.246***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Geographic proximity	-0.033***	-0.030***	-0.029***	-0.031***	-0.031***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Corporate foundation	-0.050***	-0.051***	-0.050***	-0.050***	-0.050***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Corporate performance	0.009***	0.009***	0.009***	0.009***	0.009***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Resource slack	-0.001**	-0.001*	-0.001*	-0.001	-0.001*
	(0.022)	(0.022)	(0.022)	(0.023)	(0.022)
Positive media attention	-0.010***	-0.010***	-0.010***	-0.010***	-0.010***
	(0.005)	(0.004)	(0.004)	(0.005)	(0.004)
Materiality of CSR concerns	-0.037***	-0.038***	-0.037***	-0.040***	-0.038***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
CEO tenure	-0.032***	-0.032***	-0.032***	-0.027***	-0.032***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Woman CEO	-0.028***	-0.029***	-0.029***	-0.029***	-0.029***
	(0.020)	(0.020)	(0.020)	(0.021)	(0.020)
CEO duality	-0.034***	-0.034***	-0.033***	-0.034***	-0.033***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Foundation grantmaking diversity	-0.077***	-0.083***	-0.080***	-0.082***	-0.084***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Foundation relative size of board of trustee	-0.041***	-0.050***	-0.048***	-0.048***	-0.050***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Foundation type	0.060***	0.057***	0.052***	0.057***	0.057***
	(0.008)	(0.008)	(0.007)	(0.008)	(0.007)
Industry CSR strengths	-0.064***	-0.065***	-0.065***	-0.069***	-0.065***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Industry CSR weaknesses	0.020^{***}	0.018^{***}	0.018^{***}	0.020^{***}	0.018^{***}
Inverse-Mills ratio	(0.002)	(0.002)	(0.002)	(0.003)	(0.002)
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Observations	955307	955307	955307	955307	955307
Wald chi2	157085***	168062***	169579***	168750***	170382***
R2(overall)	0.25	0.27	0.27	0.27	0.27
Auto-corr Coef.	0.158	0.147	0.170	0.169	0.147

Table C. Tests of H2 by varying the inclusion of FDO social causes into KLD dimensions

Standardized beta coefficients. Standard errors in parentheses; Two-tailed tests. *p*-values are of limited value with a million dyadic observations, a complex data structure, and a combination of limited and continuous variables.

Table D. Tests of H3 by varying the inclusion of FDO social causes into KLD dimensions

Standardized beta coefficients. Standard errors in parentheses Two-tailed tests. + p<0.1 * p<0.05 ** p<0.01 *** p<0.001

Foundation Name	Environmental	Governance	Community	Employees & Diversity	Other
Gates Foundation, Bill & Melinda					
Packard Foundation, David and Lucile, The					
The John D. and Catherine T. MacArthur Foundation					
Mellon Foundation, Andrew W., The					
Starr Foundation, The					
Casey Foundation, Annie E., The					
Reynolds Foundation, Donald W.					
Sandler Family Supporting Foundation					
Duke Charitable Foundation, Doris					
Houston Endowment Inc.					
Dell Foundation, Michael and Susan, The					
Sloan Foundation, Alfred P.					
Keck Foundation, W. M.					
Bradley Foundation, Inc., Lynde and Harry, The					
Weill Family Foundation, The					
Welch Foundation, Robert A., The					
Skillman Foundation, The					
Dow Foundation, Herbert H. and Grace A., The					
Marriott Foundation, J. Willard and Alice S., The					
The Skoll Foundation					

Table E. Top 20 Independent foundations (by contributions made)

Notes: The darker the color of the cell, the more contributions are made for that social issue. *Other* contains mostly Education related grantmaking, which we included under *Community* in post-hoc analyses (with no changes in results).

Table F. Top 20 Public charities (by contributions made)

Foundation Name	Environmental	Governance	Community	Employees & Diversity	Other
United States Fund for UNICEF					
University of Wisconsin Foundation					
Save The Children Federation, Inc.					
University of Illinois Foundation					
Juvenile Diabetes Research Foundation International					
United Negro College Fund, Inc.					
Robin Hood Foundation, The					
Twin Cities United Way, Greater					
McCormick Foundation, Robert R.					
Boys & Girls Clubs of America					
United Way of New York City					
Georgia Tech Foundation, Inc.					
Wisconsin Alumni Research Foundation					
New York-Presbyterian Fund, Inc.					
University of Cincinnati Foundation					
International Rescue Committee, Inc.					
Lucile Packard Foundation for Children's Health					
National Merit Scholarship Corporation					
Iowa State University Foundation					
ClimateWorks Foundations					

Notes: The darker the color of the cell, the more contributions are made for that social issue. *Other* contains mostly Education related grantmaking, which we included under *Community* in post-hoc analyses (with no changes in results).

KLD dimension	KLD Variable	KLD Variable Description	SASB Issue	SASB dimension
	COM_con_A	Investment Controversies (1991 to 2009)	Fair disclosure and labeling	Social Capital
Community	COM_con_B	Community Impact (from 1991)	Access and affordability	Social Capital
	COM_con_D	Tax Disputes (1991 to 2009)	Customer welfare	Social Capital
	DIV_con_A	Workforce Diversity (from 1991)	Diversity and inclusion	Human Capital
	DIV_con_B	Non-Representation (from 1993 through 2011)	Diversity and inclusion	Human Capital
	DIV_con_C	Board of Directors - Gender (from 1991)	Diversity and inclusion	Human Capital
	EMP_con_A	Union Relations (from 1991)	Labor relations	Human Capital
Diversity & Employees	EMP_con_B	Employee Health & Safety (from 1991)	Employee health, safety and wellbeing	Human Capital
	EMP_con_C	Workforce Reductions (1991 to 2009)	Recruitment, development and retention	Human Capital
	EMP_con_D	Retirement Benefits Concern (1992 to 2009)	Compensation and benefits	Human Capital
	EMP_con_F	Supply Chain (from 1998)	Supply chain management	Leadership & Governance
	HUM_con_F	Labor Rights Concern (1998 to 2009)	Fair labor practices	Human Capital
	ENV_con_A	Hazardous Waste (1991 to 2009)	Waste and hazardous materials management	Environment
	ENV_con_B	Regulatory Compliance (from 1991)	GHG emissions	Environment
	ENV_con_C	Ozone Depleting Chemicals (1991 to 2009)	GHG emissions	Environment
	ENV_con_D	Toxic Spills & Releases (from 1991)	Air quality	Environment
	ENV_con_E	Agriculture Chemicals (1991 to 2009)	Waste and hazardous materials management	Environment
	ENV_con_F	Climate Change (from 1999)	GHG emissions	Environment
Environmental	ENV_con_G	Impact of Products & Services (from 2010)	Fuel management	Environment
	ENV_con_H	Biodiversity & Land Use (from 2010)	Biodiversity impacts	Environment
	ENV_con_I	Operational Waste (from 2010)	Environmental, social impacts on assets & operations	Business Model & Innovation
	NUC_con_A	Involvement (1991 to 2002)	Waste and hazardous materials management	Environment
	NUC_con_C	Design (1991 to 2002)	Energy management	Environment
	NUC_con_D	Fuel Cycle/Key Parts (1991 to 2002)	Fuel management	Environment
	HUM_con_A	South Africa (1991 to 1994)	Regulatory capture and political influence	Leadership & Governance
	HUM_con_B	Northern Ireland (1991 to 1994)	Regulatory capture and political influence	Leadership & Governance
	HUM_con_C	Support for Controversial Regimes (from 1994)	Business ethics and transparency of payments	Leadership & Governance
Humon Dights	HUM_con_D	Mexico (1994 to 2001)	Regulatory capture and political influence	Leadership & Governance
Tuman Rights	HUM_con_G	Indigenous Peoples Relations Concern (2000 to 2009)	Materials sourcing	Leadership & Governance
	HUM_con_H	Operations in Sudan (from 2010 to 2011)	Regulatory capture and political influence	Leadership & Governance
	CGOV_con_I	Political Accountability Concern (2005 to 2007)	Regulatory capture and political influence	Leadership & Governance

Table G. KLD – SASB Matching (adapted from Khan et al. 2016)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	paper (xtlogit pa)	xtlogit re	xtprobit pa	xtprobit re	xtregar	xtgee
CSR strengths	-2.150**	-2.172*	-0.929**	-0.964*	-0.043*	-0.042**
	(0.036)	(0.047)	(0.014)	(0.020)	(0.001)	(0.001)
CEO tenure	-0.055	-0.031	-0.024	-0.016	0.000	-0.002
	(0.021)	(0.020)	(0.009)	(0.008)	(0.000)	(0.000)
Woman CEO	0.311	0.304	0.111	0.118	0.007	0.007
	(0.613)	(0.756)	(0.261)	(0.337)	(0.019)	(0.016)
CEO duality	1.291	1.274	0.529	0.547	0.024	0.024
-	(0.305)	(0.286)	(0.123)	(0.120)	(0.006)	(0.005)
CEO previous trustee position	0.697	0.872	0.276	0.348	0.014	0.019
	(0.254)	(0.262)	(0.107)	(0.111)	(0.006)	(0.006)
Materiality of CSR concerns	1.748**	1.757**	0.772**	0.792**	0.052**	0.052*
-	(0.084)	(0.082)	(0.037)	(0.038)	(0.002)	(0.003)
Corporate foundation	1.687*	1.709*	0.698*	0.714+	0.037+	0.037*
	(0.243)	(0.257)	(0.102)	(0.110)	(0.006)	(0.005)
Corporate size	0.627	0.572	0.267	0.251	0.013	0.012
•	(0.105)	(0.099)	(0.044)	(0.042)	(0.002)	(0.002)
Corporate performance	1.453**	1.501*	0.684**	0.717*	0.027	0.029*
	(0.475)	(0.663)	(0.234)	(0.322)	(0.015)	(0.011)
Resource slack	0.260	0.259	0.108+	0.110	0.003	0.003**
	(0.221)	(2.319)	(0.077)	(0.941)	(0.023)	(0.002)
Board independence	0.409	0.449	0.203	0.221	0.007	0.006
L.	(1.120)	(1.341)	(0.457)	(0.576)	(0.027)	(0.020)
Positive media attention	-1.235+	-1.226+	-0.542+	-0.546+	-0.029+	-0.031
	(0.411)	(0.404)	(0.177)	(0.178)	(0.010)	(0.012)
Constant	-7.396***	-7.509	-3.543***	-3.637	-0.0306	-0.0280
	(1.885)	(13.835)	(0.724)	(5.617)	(0.140)	(0.029)
lnsig2u		-1.600		-2.916		· /
0		(2.465)		(1.807)		
Observations	3580	3580	3580	3580	3580	3580
Wald chi2	40	28	42	26	26	34
Notes: All except Constant are s Two-tailed tests. $+ p < 0.1 * p <$ All controls are lagged with the	tandardized beta coeff 0.05 ** p < 0.01 *** p exception of Woman C	icients. Robust o < 0.001 CEO	standard error	s in parenthes	es	

Table H. Tests of H1 using alternative specifications

	Model1	Model2	Model3	Model4
	Environmental	Governance	Community	Employees & Diversity
CSR strengths - Environmental	-3.417**	-1.807***	-0.393	-0.563
	(0.197)	(0.429)	(0.187)	(0.120)
CEO tenure	0.016	0.074	0.034	0.045
	(0.020)	(0.020)	(0.020)	(0.021)
Woman CEO	0.169	0.125	0.127	0.116
	(0.626)	(0.632)	(0.627)	(0.630)
CEO duality	1.340	1.104	1.164	1.167
	(0.308)	(0.307)	(0.305)	(0.305)
CEO previous trustee position	0.589	0.596	0.613	0.609
	(0.259)	(0.256)	(0.254)	(0.255)
Materiality of CSR concerns	1.966**	1.769**	1.725**	1.773**
	(0.083)	(0.086)	(0.085)	(0.085)
Corporate foundation	1.718*	1.428 +	1.495 +	1.475+
	(0.243)	(0.244)	(0.244)	(0.243)
Corporate size	0.272	-0.051	-0.004	-0.053
	(0.093)	(0.097)	(0.101)	(0.096)
Corporate performance	1.386**	1.451**	1.443**	1.477**
	(0.480)	(0.481)	(0.481)	(0.478)
Resource slack	0.227	0.266+	0.271	0.254
	(0.227)	(0.220)	(0.229)	(0.230)
Board independence	0.256	0.242	0.223	0.232
	(1.223)	(1.205)	(1.195)	(1.187)
Positive media attention	-1.174+	-1.322+	-1.327+	-1.304+
	(0.416)	(0.420)	(0.418)	(0.417)
Constant	-6.686***	-6.629***	-6.694***	-6.516***
	(1.847)	(1.834)	(1.904)	(1.870)
Observations	3557	3557	3557	3557
Wald chi2	43 ***	50***	30**	31**

Table I. Test of H1 on each CSR dimension

Wald chi2357557557557Notes: All except Constant are standardized beta coefficients. Robust standard errors in parenthesesTwo-tailed tests. + p < 0.1 * p < 0.05 ** p < 0.01 *** p < 0.001</td>All controls are lagged with the exception of Woman CEO

	Model 1	Model 2	Model 3	Model 4
	Environmental	Governance	Community	Employees & Diversity
Time since CEO joined	-0.084**	-0.096**	-0.023	-0.019
	(0.014)	(0.021)	(0.013)	(0.015)
Similarity in board size	-0.039	0.142**	0.038	0.092+
	(0.045)	(0.067)	(0.042)	(0.051)
Similarity in number of executives	0.012	-0.078+	-0.065	-0.082*
	(0.038)	(0.056)	(0.036)	(0.043)
Similarity in size	0.018	0.253***	0.202***	0.073
	(0.040)	(0.058)	(0.034)	(0.043)
Similarity in revenues	0.092+	0.061	0.223***	0.114*
	(0.057)	(0.083)	(0.049)	(0.062)
Geographic proximity	0.070	-0.034	0.001	-0.009
	(0.000)	(0.000)	(0.000)	(0.000)
Corporate foundation	-0.088*	0.028	-0.131**	0.072
	(0.089)	(0.130)	(0.080)	(0.099)
Corporate performance	0.005	0.026	0.003	0.016
1 1	(0.042)	(0.063)	(0.041)	(0.052)
Resource slack	0.009	-0.008	-0.009	-0.013
	(1.610)	(2.442)	(1.629)	(2.040)
Positive media attention	-0.023	-0.004	-0.028	0.005
	(0.078)	(0.118)	(0.078)	(0.098)
Materiality of CSR concerns	-0.184***	-0.001	-0.079	-0.041
	(0.034)	(0.051)	(0.031)	(0.038)
CEO tenure	0.057	0.149**	0.086+	0.139**
	(0.007)	(0.010)	(0.006)	(0.007)
Woman CEO	-0.167***	-0.032	-0.004	-0.090+
	(0.326)	(0.467)	(0.266)	(0.337)
CEO duality	-0.034	-0.105*	-0.038	-0.042
	(0.094)	(0.139)	(0.086)	(0.105)
Foundation grantmaking diversity	-0.094*	-0.028	-0.010	-0 174***
i oundation grantmaking divorsity	(0.059)	(0.020)	(0.054)	(0.068)
Foundation relative size of board of trustee	0.015	0.063	0.054	-0.032
Toundation relative size of board of trastee	(0.046)	(0.067)	(0.041)	(0.051)
Foundation type	0.094	-0.006	0.103	0.084
i oundation type	(0.139)	(0.202)	(0.118)	(0.149)
Industry CSR strengths	-0.046	(0.202)	-0.056	-0 140***
industry CSR strengths	(0.044)	(0.065)	(0.042)	(0.050)
Industry CSR weaknesses	0.097**	0.036	0.101*	-0.015
industry CSK weakiesses	(0.037)	(0.055)	(0.035)	-0.013
Inverse Mills ratio	-0.063*	-0.005	(0.033)	(0.043)
inverse wins ratio	-0.005	-0.003	(0.057)	(0.072)
Observations	(0.039) 846	(0.000) 846	(0.037) 846	(0.07 <i>2)</i> 846
Wold chi?	040	62***	040	0 4 0 70***
	/4····	0.05	0.27	0.17
K2(OVETAIL)	0.27	0.05	0.22	0.17
Auto-corr Coel.	U. 1//	0.149	U. 338	U.128

Table J. Test of H3 on each CSR dimension

Auto-coll Coll0.3770.3490.3490.5380.128Standardized beta coefficients. Standard errors in parentheses; Two-tailed tests. + p<0.1 * p<0.05 ** p<0.01 *** p<0.001</td>