

## HOW CEO HUBRIS AFFECTS CORPORATE SOCIAL (IR)RESPONSIBILITY

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*Grounded in the upper echelons perspective and stakeholder theory, this study establishes a link between CEO hubris and corporate social responsibility (CSR). We first develop the theoretical argument that CEO hubris is negatively related to a firm's socially responsible activities but positively related to its socially irresponsible activities. We then explore the boundary conditions of hubris effects and how these relationships are moderated by resource dependence mechanisms. With a longitudinal dataset of S&P 1500 index firms for the period 2001–2010, we find that the relationship between CEO hubris and CSR is weakened when the firm depends more on stakeholders for resources, such as when its internal resource endowments are diminished as indicated by firm size and slack, and when the external market becomes more uncertain and competitive. The implications of our findings for upper echelons theory and the CSR research are discussed.* Copyright © 2014 John Wiley & Sons, Ltd.

## INTRODUCTION

Corporate social responsibility (CSR) reflects the extent to which a firm actively engages in social initiatives in response to a wide range of stakeholder interests (Carroll, 1979; Mattingly and Berman, 2006; McWilliams and Siegel, 2001; Wood, 1991). Its role in a firm's financial and market outcomes has aroused keen interest among scholars in the strategic management field (Choi and Wang, 2009; Godfrey, Merrill, and Hansen, 2009; Hillman and Keim, 2001; Margolis and Walsh, 2003; Orlitzky, Schmidt, and Rynes, 2003). Scholars have devoted themselves to exploring how CSR affects firm financial outcomes such as accounting or market

performance. Though not without controversy (Shane and Spicer, 1983; Wright and Ferris, 1997), research suggests CSR significantly influences a firm's long-term financial performance (Berman *et al.*, 1999; Lev, Petrovits, and Radhakrishnan, 2010; Muller and Kräussl, 2011; Waddock and Graves, 1997; Wang and Qian, 2011).

Given the importance of CSR in firm strategy and performance, as well as its impact on the welfare of numerous stakeholders in society, it is imperative to understand what drives a firm's participation in CSR. Yet “the conceptual determinants of [CSR] ... remain relatively under-developed” (Brammer and Millington, 2008: 1326). Stakeholder theory, the dominant approach in evaluating CSR, argues that a firm is acting in a socially responsible manner by looking after the interests of its stakeholders (McGuire, Dow, and Argheyd, 2003). It stresses that corporate executives determine whether firms respond to or ignore the interests of stakeholders (Donaldson, 1999). This view is consistent with the

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upper echelon theory, which posits that firm strategic decisions, including social performance policies (Chin, Hambrick, and Treviño, 2013), are significantly influenced by corporate executives—in particular, chief executive officers (CEOs) (Hambrick and Mason, 1984). Following this line of research (Finkelstein, Hambrick, and Cannella, 2009; Wong, Ormiston, and Tetlock, 2011), our study investigates how the psychological characteristics of CEOs affect the firm's CSR participation.

One important psychological characteristic affecting firm decisions and outcomes is the CEO's positive self-potency (Hiller and Hambrick, 2005). Finkelstein and his associates (2009: 77) affirm that "the implications of positive self-regard in executives are so substantial ... the construct warrants serious attention and analytic pursuit." This emergent stream of literature has shown that CEO hubris—generally defined as extreme self-confidence and pride (Hayward and Hambrick, 1997; Hiller and Hambrick, 2005)—affects a wide array of firm strategies and outcomes, including corporate financial strategies (Malmendier and Tate, 2005, 2008), managerial risk taking (Li and Tang, 2010; Simon and Houghton, 2003), acquisition premiums (Hayward and Hambrick, 1997), and firm innovation (Tang, Li, and Yang, 2012). However, to the best of our knowledge, the implications of CEO hubris for firm decisions and outcomes have not been extended to the firm's social context, where CEOs can have an influential impact (Chin *et al.*, 2013; Freeman, 1984).

We bring prior research on CEO hubris to the study of CSR by investigating two interrelated research questions. First, we explore the mechanism through which CEO hubris affects CSR by examining how it simultaneously affects a firm's participation in socially responsible as well as socially *irresponsible* activities. Scholars in the CSR field have recently decomposed the construct of CSR into its positive and negative aspects (Godfrey *et al.*, 2009; Kotchen and Moon, 2012; Muller and Kräussl, 2011; Strike, Gao, and Bansal, 2006). The former refers to voluntary corporate actions designed to improve social conditions (Mackey, Mackey, and Barney, 2007); the latter pertains to "the set of corporate actions that negatively affects an identifiable social stakeholder's legitimate claims in the long run" (Strike *et al.*, 2006: 852). A firm can engage in responsible behavior ("good deeds") and irresponsible behavior ("bad deeds") simultaneously, and the two aspects of CSR may

be conceptually distinct and subject to different dynamics (Lange and Washburn, 2012; Mattingly and Berman, 2006). Hence, studying both positive and negative aspects of CSR should allow scholars to unveil new insights. More specifically, we draw upon stakeholder theory (Carroll, 1989; Donaldson and Preston, 1995; Freeman, 1984) and research on CEO hubris (e.g., Hiller and Hambrick, 2005) to argue that, due to their overestimation of their own capabilities and strong sense of self-sufficiency, hubristic CEOs tend to underestimate the firms' dependence on stakeholders for resources and support, resulting in a low level of engagement in socially responsible activities. Moreover, their underestimation of the stakeholders' importance and overconfidence in their own problem-solving capabilities may be manifested in a tendency to engage in socially irresponsible activities.

Second, we examine the contingent factors that mitigate the managerial bias of hubris in the context of how the hubris–CSR relationship could be weakened or strengthened. On the one hand, this should help identify the boundary conditions associated with the impact of CEO hubris; on the other, it substantiates the mechanisms linking hubris to CSR. We argued earlier that hubristic CEOs are less keen on socially responsible activities because they perceive a lower level of dependence on stakeholders for resources and support. Thus, when a firm's resource dependence on stakeholders grows, hubristic CEOs may be forced to engage in more socially responsible activities to garner more stakeholder support. Hence, hubristic CEOs act in a socially irresponsible manner when they fail to realize the importance of stakeholders and thus ignore their interests. Conversely, when they perceive a greater dependence on stakeholders, they will think more carefully before engaging in such irresponsible activities. Therefore, the relationship between CEO hubris and CSR (for both "good" and "bad" deeds) will be weakened when the level of the firm's resource dependence on stakeholders rises.

We examine the level of resource dependence on stakeholders under internal resource and external environmental conditions. We posit that larger firms and firms with more slack will be less reliant on resource inputs from stakeholders, thus strengthening the impact of CEO hubris on CSR. In contrast, the hubris–CSR relationship will be weakened if the firm is small in size and has less slack. Similarly, when market uncertainty is high and competition is fierce, the firm will need more resources from its

stakeholders, prompting the CEO to engage in more social activities and avoid those that might upset stakeholders, thus the impact of CEO hubris on CSR will be weakened.

Testing our hypotheses using a longitudinal dataset of Standard & Poor's (S&P) 1500 index firms during 2001–2010, we find substantial support. Our study makes several notable contributions. First, it enriches the CSR literature by linking upper echelons research, particularly on executive personality, to CSR studies. By demonstrating how a CEO's hubris—an overly positive image of themselves and an important source of managerial decision bias—affects corporate engagement in social responsibility, we advance the research on the antecedents of CSR and understanding of why firms vary in their corporate social activities. Second, we follow recent research on CSR to theoretically and empirically distinguish the negative aspects of CSR from the positive ones (Godfrey *et al.*, 2009; Kotchen and Moon, 2012; Muller and Kräussl, 2011; Strike *et al.*, 2006), and examine the impact of CEO hubris on both. We add to the research on CEO hubris by extending its strategic implications to the social domain, where the managerial decision process and bias can have substantial impacts (Freeman, 1984). More importantly, our study also contributes to the upper echelons perspective by revealing the boundary conditions that mitigate the effects of CEO hubris on a firm's strategic decisions.

## THEORETICAL BACKGROUND

### Corporate executives and CSR

CSR reflects the extent to which a firm actively responds to a host of stakeholder demands (Freeman, 1984; Hillman and Keim, 2001; Rowley and Berman, 2000). Stakeholders are defined as individuals or groups of individuals who are affected by, or whose actions can directly affect, a firm's operation (Freeman, 1984; Jones, 1995). They extend beyond shareholders to include employees, customers, suppliers, the community, and even the general public. Stakeholder theorists believe that executives play an important role in CSR, as "stakeholder theory is *managerial* in nature" and "managers [are] the subject of stakeholder theory" (Donaldson, 1999: 238). Indeed, the existing literature on the drivers of CSR has suggested that the characteristics of corporate

executives are closely related to the extent to which firms engage in socially responsible or irresponsible activities (Deckop, Merriman, and Gupta, 2006; Kotchen and Moon, 2012; Manner, 2010; Slater and Dixon-Fowler, 2009; Wong *et al.*, 2011).

Research on how corporate executives influence CSR, however, has focused on their personal backgrounds and experiences. For instance, using a sample of 393 CEOs of S&P 500 companies, Slater and Dixon-Fowler (2009) found that CEOs with international assignment experience engaged their firms more extensively in socially responsible activities. Employing a sample of 650 publicly listed U.S. firms, Manner (2010) found that female CEOs with a bachelor's degree in humanities and a breadth of career experience were more likely inspire better CSR performance. Some researchers have explored how executive tenure and compensation affect CSR (Deckop *et al.*, 2006; Manner, 2010). For example, based on a sample of 313 S&P firms, Deckop and his colleagues (2006) found that a short-term CEO pay focus was negatively related to CSR, whereas a long-term one was positively related. In another study, Kang (2010) found that as CEOs approached retirement, their firms were less likely to pay attention to social issues and engaged in fewer socially responsible initiatives.

The above evidence clearly points to the impact of CEOs' characteristics on their firms' social initiatives. Nevertheless, existing research is almost silent on whether and how the psychological bias of CEOs plays a role in their firms' participation in social practices. Indeed, the field has recently called for an exploration of these questions, as CSR is as much a response to external pressure as it is to internal factors such as the value and psychological orientation of managers (Chin *et al.*, 2013; Chiu and Sharfman, 2011). A few recent studies have already started investigating how cognitive factors influence positive CSR engagement (Chin *et al.*, 2013; Wong *et al.*, 2011). For instance, among a sample of 249 CEOs, Chin *et al.* (2013) found that CEOs' political ideologies influenced their firms' CSR practices: compared with conservative CEOs, liberal CEOs exhibited greater participation in socially responsible activities.

However, these studies rarely draw upon the psychological bias literature to discuss the influence of executives on CSR, and largely ignore a related but distinctive aspect of CSR—socially irresponsible activities. Below, we discuss in more detail the potential influence of executive psychological

characteristics (Hiller and Hambrick, 2005) and examine the influence of CEO hubris on both the positive and negative aspects of CSR.

### **CEO hubris**

Studies affiliated with upper echelons theory have explored the implications of managerial self-potency along several dimensions such as hubris (Hayward and Hambrick, 1997; Li and Tang, 2010; Tang *et al.*, 2012), overconfidence (Simon and Houghton, 2003), optimism (Hmieleski and Baron, 2009), and narcissism (Chatterjee and Hambrick, 2007; Zhu and Chen, 2014). A common theme of these dimensions is executives' overly positive self-assessment (Hiller and Hambrick, 2005). Based on the seminal work of Judge and his colleagues (Judge, Locke, and Durham, 1997; Judge *et al.*, 2002), Hiller and Hambrick (2005: 306) group these types of managerial bias under a single overarching conceptual umbrella called *executive core self-evaluation*, proposing that "the upper reaches of core self-evaluation may be thought of as a scientific validated 'hubris factor.'"

Hubris is a prominent character trait of many corporate executives (Hiller and Hambrick, 2005). Prior research examining "hubris factors" tends to treat the terms *hubris* and *optimistic overconfidence* as synonymous and associated with similar theoretical mechanisms (Hill, Kern, and White, 2012; Malmendier and Tate, 2008). Both hubristic and optimistically overconfident individuals have a habit of overestimating their capabilities and considering themselves superior to the average person (Harrison and Shaffer, 1994; Hilary and Menzly, 2006; Weinstein, 1980). They have a strong sense of self-sufficiency (Hayward and Hambrick, 1997; Simon and Houghton, 2003) and expect positive outcomes to emerge even in uncertain environments (Hribar and Yang, 2013; Li and Tang, 2010; Malmendier and Tate, 2005). By contrast, prior research tends to treat hubris and narcissism differently. Chatterjee and Hambrick (2007: 357) pointed out that "hubris lacks key elements of the narcissistic personality, most notably ... continuous need for affirmation and applause." Unlike a narcissistic CEO, a hubristic CEO cares less about external recognition gained from being socially responsible. Our theoretical development focuses on CEOs' hubristic orientations as the overestimation of their own capabilities and sense of self-sufficiency are argued to have impacts on their CSR decisions.

## **HYPOTHESES**

### **CEO hubris and CSR**

According to the instrumental stakeholder perspective (Clarkson, 1995; Haley, 1991; Saiia, Carroll, and Buchholtz, 2003), firms invest in socially responsible activities to please internal and external stakeholders such as employees, customers, suppliers, external communities, and government agencies (File and Prince, 1998; Hillman and Keim, 2001; Wang, Choi, and Li, 2008). After all, stakeholders feature prominently in their day-to-day operations, and their support is crucial to a firm's success (Freeman, 1984; Freeman, Harrison, and Wicks, 2007). A reputation for being socially responsible has been argued to help firms enhance their image (Fombrun, 1996), gain greater consumer support (Lev *et al.*, 2010; Sen and Bhattacharya, 2001), deepen employee commitment (Greening and Turban, 2000), acquire a higher level of legitimacy from the community (Fombrun, Gardberg, and Barnett, 2000), and develop better relationships with government (Campbell, 2007; Wang and Qian, 2011). For example, employees show greater commitment to firms that are known for excellent staff training programs (Dutton *et al.*, 1994). Customers respond to socially responsible firms via increased demand for their products and services (Bhattacharya and Sen, 2003).

In addition, a remarkable CSR performance can help firms mitigate the risks of reputational loss and secure critical resources from stakeholders, providing insurance-like protection (Fombrun *et al.*, 2000; Godfrey, 2005; Williams and Barrett, 2000). In an event study of 178 negative legal and regulatory actions taken against firms between 1993 and 2003, Godfrey and colleagues (2009) found that firms that engaged in socially responsible activities were more likely to buffer against the threat of negative stakeholder reactions. Among a sample of U.S. public firms between 1991 and 2007, Koh and his colleagues (2014) found that CSR created more value—as indicated by the price of firm equity—for firms facing greater litigation risk. Since firms rely on stakeholders for critical resources and support (Backhaus, Stone, and Heiner, 2002; Dutton *et al.*, 1994), when a firm's survival is highly dependent on the support of internal and external stakeholders for resources (Pfeffer and Salancik, 1978), it is more strongly motivated to initiate social practices that will

benefit stakeholders, while avoiding practices that could harm them.

Upper echelons research suggests that top managers filter, interpret, and construct information and make strategic choices in response to environmental stimuli (Carpenter, Geletkanycz, and Sanders, 2004; Hambrick and Mason, 1984). Accordingly, CEOs' perceived resource dependence on stakeholders tends to affect their firms' engagement in socially responsible practices. Hubristic CEOs are less inclined to participate in socially responsible activities due to a perceived lower dependence on stakeholders. They tend to overestimate their own problem-solving capabilities and level of control while underestimating the resource requirements for their strategic initiatives (Hayward and Hambrick, 1997; Li and Tang, 2010).

Two mechanisms seem to be at work here. First, hubristic CEOs tend to overestimate their own capabilities (Hayward and Hambrick, 1997), believing that their fate rests entirely in their own hands (Miller, 1983; Rotter, 1966). As Moore and Healy (2008: 502) illustrate, hubris leads to "the overestimation of one's actual ability, performance, level of control, or chance of success." Such an inflated belief in their own capabilities drives hubristic CEOs to underestimate the risks surrounding their decisions. As noted before, engaging in social practices provides a form of insurance against risks (Godfrey, 2005); a good CSR record works as a buffer for firms when negative events occur (Godfrey *et al.*, 2009; Koh, Qian, and Wang, 2014). However, for hubristic CEOs who in general believe they are fully capable of managing risks without external assistance, the perceived need for insurance-like protection afforded by engaging in socially responsible practices is significantly reduced. As a result, they are less inclined to engage in socially responsible activities than their non-hubristic counterparts.

Second, hubristic CEOs tend to overestimate the resources they possess and underestimate the resources required for their strategic initiatives. Malmendier and Tate (2005) found that hubristic CEOs tended to assume the firm had enough financial resources and distorted their investment decisions to rely more on internal rather than external financing. Among a sample of Chinese CEOs, Li and Tang (2010) found that, when hubristic CEOs believed they had more resources than they actually did, they ended up initiating excessively risky firm strategies. Hence, hubristic CEOs assume that the success of their firms depends less on stakeholders

and more on themselves. Therefore, such firms are less motivated to respond to stakeholder demands, and in turn engage in fewer socially responsible activities.

These two mechanisms suggest hubristic CEOs fail to realize the importance of stakeholders in firm success, and are less likely to invest in socially responsible activities. For example, pursuing a social goal of environmental protection helps foster a positive image in the eyes of customers and communities. However, if a CEO considers that the firm's performance depends on his/her own capabilities rather than on its customers or community (as a hubristic one would do), the CEO would be less likely to take strategic decisions to improve its environmental performance. Synthesizing the above arguments, we anticipate that a higher level of CEO hubris will lead to a lower level of engagement in socially responsible activities by the firm.

*Hypothesis 1a: There is a negative relationship between CEO hubris and firm engagement in socially responsible activities.*

CEO hubris may also influence a firm's participation in socially irresponsible activities. In the ongoing debate over which activities constitute a complete construct of CSR (Mattingly and Berman, 2006), recent studies have observed that firms not only do good but also "do bad," sometimes simultaneously (Fombrun *et al.*, 2000; Muller and Kräussl, 2011; Strike *et al.*, 2006). A firm that engages more in socially responsible activities does not necessarily participate in fewer socially irresponsible ones—despite the fact that engagement in socially irresponsible activities is more likely to attract the attention of observers (Froaman, 1997; Lange and Washburn, 2012). Researchers have increasingly come to consider these two aspects of CSR as conceptually distinct phenomena (Godfrey *et al.*, 2009; Strike *et al.*, 2006), with different implications for firms. While the positive aspect of CSR may be considered as a corporate expense that diverts valuable resources to activities that do not directly enhance shareholder value, the negative aspect of CSR is considered to be a cost-saving strategy that improves firm performance at the cost of reduced stakeholder value (Kotchen and Moon, 2012).

In our study, we have chosen to approach firms' engagement in socially irresponsible activities as another dimension of CSR. We argue that hubristic CEOs will drive the firm to participate in more

socially irresponsible activities precisely due to their belief in their own capabilities and sense of self-sufficiency. Firms engaging in socially irresponsible activities do so for their own benefit at the expense of stakeholders (Frooman, 1997; Mishina *et al.*, 2010). For example, some multinational firms adopt exploitative labor practices in developing economies to lower costs (Connor, 2001). As described earlier, hubristic CEOs believe they have a superior problem-solving capability and that they can handle all potential issues (Hayward and Hambrick, 1997; Hiller and Hambrick, 2005). This suggests that they will be confident that they can expropriate stakeholders for the benefit of the firm and get away with it; even if caught, they are confident about handling any negative consequences. Moreover, given the illusion of self-sufficiency driven by hubris (Hiller and Hambrick, 2005), such CEOs will be less concerned about losing the support of firm stakeholders. For example, a hubristic CEO will not be overly alarmed about losing existing customers due to a violation of environmental standards because he/she believes the firm's products or services are so good that it will continue to attract new customers. For these reasons, hubristic CEOs are easily seduced by the prospective payoff from engaging in socially irresponsible activities and less concerned about ensuing sanctions from stakeholders. We therefore anticipate that a higher level of CEO hubris will lead to a firm engaging in more socially irresponsible activities.

*Hypothesis 1b: There is a positive relationship between CEO hubris and firm engagement in socially irresponsible activities.*

### The moderating effect of resource dependence factors

If CEO hubris does affect a firm's decisions and behaviors in the social domain, influencing both positive and negative aspects of CSR participation, it is important to understand how the syndrome may be limited by boundary conditions (Finkelstein *et al.*, 2009; Hiller and Hambrick, 2005). Identifying boundary conditions helps advance research on CEO hubris and upper echelons studies, not simply when the organization is more or less likely to reflect top executive's cognitive values and psychological biases (Hambrick and Mason, 1984), but also its practical implications. Indeed, prior studies show that the impact of hubristic CEOs on firms'

decision outcomes is usually not value creating (Hayward and Hambrick, 1997; Li and Tang, 2010).

In our context, investment in social activities benefits a broad range of stakeholders and, ultimately, shareholders (Margolis, Elfenbein, and Walsh, 2007). Research suggests that a reputation for being socially responsible can contribute to sustainable competitive advantage (Choi and Wang, 2009). This is precisely why Freeman and colleagues (2004: 366) claim that "stakeholder theory [as the theoretical logic underlying CSR] is decidedly pro-shareholder." In the long run, engaging in more activities that benefit stakeholders and fewer activities that harm them is in the best interest of the firm, so it is critical to identify any contingent factor that may curb a CEO's inflated ego.

Identifying the contingent factors allows us to further test the core logic behind our main hypotheses, which are developed based on hubristic CEOs' perception of a lower dependence on stakeholders for resources and support. Because hubristic CEOs fail to realize the importance of stakeholders in firms' success, they are not motivated to demonstrate social responsibility and may even engage in socially irresponsible activities. While it is difficult to directly model and measure a CEO's perceived resource dependence on stakeholders, it is possible to identify internal and external factors that affect the extent to which a firm relies on stakeholders for resources and support (cf. Wang and Qian, 2011). Specifically, when a firm has no choice but to resort to its stakeholders for help, even a hubristic CEO will have to perform more good deeds to appeal to stakeholders and to refrain from bad ones. Hence, we argue that factors influencing a firm's resource dependence on stakeholders set the boundary conditions for the CEO hubris–CSR relationships.

The extent of a firm's resource dependence on stakeholders can also be determined by its internal and external environments. Below, we discuss the internal conditions that affect a firm's resource dependence on stakeholders, such as firm size and the level of slack. Then, we examine the external resource conditions. Larger firms and firms with more slack are found to be less dependent on their stakeholders for resources and support, which strengthens the impact of CEO hubris on CSR.

#### Firm size

Firm size is a primary indicator of the volume of tangible and intangible resources a firm possesses,

and prior research has shown that larger firms are less likely to fail (Brüderl and Schüssler, 1990; Dobrev, 2001; Levinthal, 1991; Mitchell, 1994). Normally, larger firms have more resources at their disposal (Audia and Greve, 2006). Mitchell (1994), for instance, found that larger businesses tended to have larger pools of financial and managerial resources. Since larger firms are more capable of attracting additional resources (Brüderl and Schüssler, 1990), they will be less dependent on stakeholders for resources and support. By extension, hubristic CEOs of larger firms are more likely to underestimate the necessity of winning over stakeholders, hence they engage in fewer socially responsible activities but more socially irresponsible ones. In other words, the effects of CEO hubris on CSR will be greater in larger firms.

CEOs of smaller firms, bounded by limited resources, are more likely to recognize the importance of stakeholders and seek their support by adopting various types of socially responsible initiatives and avoiding irresponsible ones, and potentially creating a competitive advantage in the process. For instance, firms that foster a good work environment have lower hiring costs and higher retention rates; firms that give back to the community will, for example, face less community opposition (and legal costs) when opening a new factory in the area; firms that "do right" by the government may find lobbying for tax breaks easier (Barnett and Salomon, 2006). Conversely, poor labor relations could damage a small firm's operations significantly. In summary, we posit that firm size moderates the resource dependence mechanism linking CEO hubris and CSR, as follows:

*Hypothesis 2a: The negative relationship between CEO hubris and firm engagement in socially responsible activities will be strengthened when firm size is larger.*

*Hypothesis 2b: The positive relationship between CEO hubris and firm engagement in socially irresponsible activities will be strengthened when firm size is larger.*

#### Firm slack

Firm slack describes the excess resources a firm has to shield itself against environmental change and other external shocks (Bourgeois, 1981; Bromiley,

1991; Singh, 1986). A firm can build up slack by holding cash or financial instruments, or by borrowing less than it can healthily afford (Greve, 2003). Increased slack facilitates experimentation and organizational change (Cyert and March, 1963; March, 1981) as such activities require a substantial input of resources.

When a firm has more slack, the relationship between CEO hubris and CSR is expected to be stronger, since the assumption that the firm can prosper without tapping into stakeholders' resources will be enhanced. The CEO is thus more likely to sidestep socially responsible activities and undertake socially irresponsible actions without scruple. In contrast, when resources are limited, their conviction that there is little need for stakeholder support may begin to waver, so the CEO may question involvement in socially irresponsible activities and decide to engage in more socially responsible activities to win back stakeholders' trust and gain access to valuable resources. For instance, as a powerful stakeholder group, a local community may bear a grudge against firms that ignore environmental protection standards, and take their customers elsewhere. Even hubristic CEOs will worry about the loss of potential customers when their firms' financial reserves are depleting fast. If the firm has a history of poor community relations, public protests will be particularly damaging if it has limited slack. The CEO will have to suppress his/her ego, and be forced to think about how to save the firm's reputation by engaging in socially responsible activities and avoiding socially undesirable ones. Hence, we posit that the higher the slack, the less the need for resources and support from stakeholders, and the stronger the relationship between CEO hubris and CSR.

*Hypothesis 3a: The negative relationship between CEO hubris and firm engagement in socially responsible activities will be strengthened when the firm has more slack.*

*Hypothesis 3b: The positive relationship between CEO hubris and firm engagement in socially irresponsible activities will be strengthened when the firm has more slack.*

Externally, the task environment affects a firm's resource dependence on its stakeholders. Indeed, resource dependence theory suggests that a firm's

dependence on various stakeholders for resources and support heightens as market uncertainty increases and competition intensifies (Pfeffer and Salancik, 1978).

#### *Market uncertainty*

Market uncertainty measures the extent to which a firm's external environment is unstable and unpredictable (Pfeffer and Salancik, 1978). As market uncertainty intensifies, it becomes increasingly difficult for firms to deliver good performance because the market demands are more difficult to predict and the recipe for success that previously worked for them no longer does so (Henderson, Miller, and Hambrick, 2006; Keats and Hitt, 1988). In this context, firms' dependence on stakeholders for resources and support will grow, as will the incentive to maintain a positive image. Socially responsible activities help build goodwill, which buffers against unforeseen problems and may even garner opportunities not available to other firms (Fombrun *et al.*, 2000). To manage the instability of resource inflow associated with increased market uncertainty, firms tend to form strong partnerships with suppliers and distributors (Beckman, Haunschild, and Phillips, 2004).

In a highly uncertain environment, they also depend on sustained government support for access to critical information, favorable policies and regulations, as well as other resources (Hillman, Zardkoohi, and Bierman, 1999). Hence, CEOs will seek to win over government by doing more good deeds and avoiding bad ones. We thus argue that, when market uncertainty increases, hubristic CEOs (who typically underestimate the firm's resource dependence on various stakeholders) will engage in more socially responsible activities—such as making philanthropic donations to the community and encouraging employees to volunteer in community activities—as the importance of stakeholder support becomes apparent. Meanwhile, activities that harm stakeholders will be shunned, for example, manufacturers make an effort to control environmental waste, reduce the use of unrefined oil, etc.

*Hypothesis 4a: The negative relationship between CEO hubris and firm engagement in socially responsible activities will be weakened when market uncertainty is high.*

*Hypothesis 4b: The positive relationship between CEO hubris and firm engagement in socially irresponsible activities will be weakened when market uncertainty is high.*

#### *Market competition*

Similarly, when firms are confronted with a greater level of market competition, they will depend more on various stakeholders for resources. Market competition is likely to intensify with a lower industry concentration (Keats and Hitt, 1988) where there are more competitors in the market (Palmer and Wiseman, 1999). When the number of competitors in an industry increases, the intricacy of the interrelations between different strategic groups also increases (DeSarbo and Grewal, 2008), as well as the potential interconnectedness of competitors (Chen, 1996; Grimm, Lee, and Smith, 2006). Firms operating in more competitive markets often find themselves dealing with more complexity (Hambrick and Finkelstein, 1987) and thus will rely more on stakeholders for sustainable resource inputs. This, in turn, will suppress hubristic CEOs' tendency to overestimate their problem-solving capabilities and their firms' resource endowments, consequently weakening the effects of CEO hubris on CSR. For example, firms that are socially responsible are able to retain their customer base (Brown and Dacin, 1997; Ulmer, 2001); in a fiercely competitive market, customer loyalty is vital for maintaining their market position. Without it, they can lose market share to competitors. Likewise, in such a context, a hubristic CEO will reduce activities that harm stakeholders for fear of losing their support. For example, since "employees constitute the 'front line' of the firm, and are responsible for transforming the firm's inputs into outputs" (Barnett and Salomon, 2006: 1107), in a competitive market, firms need to attract talented employees to secure a competitive advantage (Turban and Greening, 1997). It thus becomes essential for the firm not to mistreat its employees and to avoid being labeled a "bad" employer.

In contrast, in less competitive markets, highly developed rules or norms of interaction prevail (Hambrick and Finkelstein, 1987), which may further strengthen hubristic CEOs' perception that they can handle problems with ease and the firm can prosper without resource inputs and support from stakeholders. In short, given that a firm's resource

dependence on stakeholders increases in a more competitive market, we posit:

*Hypothesis 5a: The negative relationship between CEO hubris and firm engagement in socially responsible activities will be weakened when market competition is high.*

*Hypothesis 5b: The positive relationship between CEO hubris and firm engagement in socially irresponsible activities will be weakened when market competition is high.*

## METHOD

### Data

The data for this study were gathered from multiple reliable sources. We first identified CEOs of S&P 1500 firms for the period from 2001 to 2010 from the ExecuComp database. Then, we merged these firms with data provided by Kinder, Lydenberg, Domini & Co., Inc. (KLD) to obtain our CSR measure. KLD data are widely used in CSR research and are considered the best available for compiling a comprehensive measure of CSR (Choi and Wang, 2009; Hillman and Keim, 2001; Waddock and Graves, 1997). We followed Malmendier and Tate (2008) and Hirshleifer, Low, and Teoh (2012) to construct a media-based measure of CEO hubris. Data on market uncertainty, competition, firm size, slack, and control variables came from the Compustat, the Investor Responsibility Research Center (IRRC), and I/B/E/S databases. We excluded firms for which certain information required for our analysis was missing. Our final sample included 397 firms, 464 unique CEOs, and 1,925 firm-year observations.

### Measures

#### CSR

Following previous research, we measured CSR at year  $t$  based on five dimensions from the KLD data: community, diversity, employee relations, environment, and product (Choi and Wang, 2009). These dimensions were chosen because they are of the greatest interest to stakeholders and are usually the main focus in CSR research (e.g., Wang and Choi, 2013). In addition, managing relationships

with stakeholders through corporate social involvement along these five dimensions has been considered to have important implications for firm market performance (Hillman and Keim, 2001).

Each of the five dimensions involves different categories of CSR strengths and concerns (weakness). Within each of these categories are items to which KLD assigns a 1 or 0 according to whether or not a firm meets certain criteria (Mattingly and Berman, 2006). We consider all the strength items to be consistent with acting socially responsible and all the concerns items to be consistent with acting socially irresponsible (Kotchen and Moon, 2012). We created a *CSR Strength* variable by summing the number of strengths across the five dimensions to measure the extent of a firm's participation in socially responsible activities (Kotchen and Moon, 2012; Strike *et al.*, 2006). Similarly, the *CSR Concern* variable is the total number of concerns across the five dimensions, indicating the extent of a firm's participation in socially irresponsible activities (Godfrey *et al.*, 2009; Strike *et al.*, 2006).

#### CEO hubris

Conducting research on executive psychological orientation is challenging as CEOs of large public firms tend to be unwilling to respond to surveys about personality traits such as hubris, and any responses may suffer from social desirability bias (Cycyota and Harrison, 2002; Krosnick, 1999; Tourangeau and Yan, 2007). One promising and practical alternative approach is to use unobtrusive indicators (Chatterjee and Hambrick, 2007; Webb and Weick, 1983). Accordingly, we adopted Malmendier and Tate's (2008) media-based measure of CEO hubris using data collected from business press coverage. This measure has also been employed by Hirshleifer *et al.* (2012) and Hribar and Yang (2013). Specifically, we sought out all news articles that mention each of the CEOs of our sample firms in a range of major publications including *The New York Times*, *Business Week*, *The Financial Times*, *The Economist*, and *The Wall Street Journal* (Hirshleifer *et al.*, 2012; Malmendier and Tate, 2008). Like Hirshleifer *et al.* (2012). We cumulated articles published between the first year the CEO was in office and year  $t - 1$ .

For those CEOs with media coverage, we counted the total number of times they were described by the press using terms that suggested confidence ("confident," "confidence," "optimistic," or "optimism")

after assuming their present positions. Similarly, we counted the total number of times that the CEOs were described by the press using terms that suggested conservatism ("reliable," "cautious," "conservative," "practical," "frugal," "steady," "not confident," or "not optimistic"). We only counted the terms if they appeared within ten words of the CEO's name. Next, we constructed a *CEO Hubris Continuous* measure by taking the difference between the number of times the "confident" terms appeared, the number of times the "conservatism" terms appeared, scaling that by the sum of the two numbers for a specific CEO.

The level of CEO hubris may not be a continuous variable, and a CEO may only be thought of as hubristic if his or her hubris level exceeds a certain threshold. To account for this, we used an ordered categorical variable as our main CEO hubris measure instead of a continuous variable. The variable *CEO Hubris* takes the value of 1 if the CEOs are in the top quintile as measured by the *CEO Hubris Continuous* variable, indicating they are really over-confident or hubristic. The variable *CEO Hubris* takes the value of -1 if the CEOs are in the bottom quintile as measured by the *CEO Hubris Continuous* variable, indicating they are less confident. The remaining CEOs receive a value of 0 in *CEO Hubris* measure, indicating they are neutral. In the robustness checks discussed below, we replicated the main findings with the *CEO Hubris Continuous* measure.

#### *Moderating variables*

The two moderators representing the internal firm condition are firm size and firm slack. *Firm Size* was measured by the natural logarithm of firms' total assets at year  $t - 1$ . *Slack* was measured by firms' cash holding scaled by firms' market capitalization at year  $t - 1$ . Firms with more cash on hand have less need to raise funds externally, which suggests that they are less limited by resources.

The external environmental moderators were measured at the industry level. An industry is defined by a two-digit SIC code. *Market Uncertainty* was measured by the industry median of the analyst forecast dispersion (i.e., the standard deviation of analyst earnings per share forecasts scaled by share price) at year  $t - 1$ . Analyst dispersion has been widely used as a measure of uncertainty surrounding a firm (Jorgensen, Li, and Sadka, 2012; Rogers, Skinner, and Van Buskirk, 2009; Zhang, 2006). *Market Competition* was measured by the

natural logarithm of one minus the four-firm concentration ratio divided by four-firm concentration ratio at year  $t - 1$ . The four-firm concentration ratio was calculated by dividing the combined sales of the four largest firms (based on sales) in an industry by the total sales of that industry (Palmer and Wiseman, 1999).

#### *Control variables*

A firm's CSR in the prior year was controlled for as it captures the firm's CSR history (Barnett, 2007). Firm performance, age, and risk have all been shown to affect a firm's engagement in social activities (e.g., Adams and Hardwick, 1998; Waddock and Graves, 1997). Firms with better financial performance are more likely to engage in social activities since they can afford to do so. Firm performance, indicated by *ROA* (return on assets) and *MTB* (market-to-book ratio), was thus controlled for. *Firm age* was measured by the number of years since the year in which the firm appeared in the CRSP database for the first time. *Firm Risk* was measured by the ratio of long-term debt to equity (Bromiley, 1991). *Analyst Coverage* was also controlled for by including the number of analysts issuing earnings forecasts for the firm at the end of year  $t - 1$  (Chen, Chittor, and Vissa, 2014; Wiersema and Zhang, 2011). In addition, we controlled for *CEO Tenure*, *CEO Gender*, and *CEO Firm Ownership*. Since our measure of CEO hubris was obtained from media reports, we further included a control variable—the natural logarithm of the *Total number of news articles* written about the CEO. Finally, we controlled for industry (SIC two-digit) and year fixed effects. We calculated the robust standard errors clustered by industry.

## RESULTS

Table 1 presents descriptive statistics and correlations for the variables. The pairwise correlations among the independent variables are not particularly high. A further check of the variance inflation factor (VIF) of the variables (including the interaction terms) did not reveal any serious multicollinearity problem, with a maximum VIF of 2.33 and a mean VIF of 1.41 (Cohen *et al.*, 2003). Our main findings are summarized in Panels A and B of Table 2. Panel A summarizes the results of testing the hypotheses related to

Table 1. Descriptive statistics and correlations

Variable	Mean	Median	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. CEO hubris	0.037	0.000	0.666																	
2. ROA	0.047	0.046	0.080	<b>-0.05</b>																
3. Firm risk	0.997	0.505	1.611	-0.03	<b>-0.23</b>															
4. MTB	1.976	1.560	1.214	-0.03	<b>0.51</b>	<b>-0.20</b>														
5. Analyst coverage	14.513	14.000	7.692	<b>-0.08</b>	<b>0.15</b>	<b>-0.16</b>	<b>0.28</b>													
6. Firm age	32.797	25.000	23.846	<b>-0.10</b>	<b>0.13</b>	<b>0.06</b>	<b>-0.06</b>	0.03												
7. CEO tenure	8.195	6.000	7.284	<b>0.04</b>	-0.03	<b>-0.10</b>	-0.02	<b>-0.09</b>	<b>-0.20</b>											
8. Male CEO	0.973	1.000	0.162	<b>-0.04</b>	-0.02	0.03	0.01	0.08	-0.04	<b>0.08</b>										
9. Ownership	0.020	0.002	0.057	<b>0.08</b>	<b>0.07</b>	<b>-0.06</b>	<b>0.10</b>	-0.14	-0.15	<b>0.37</b>	<b>0.04</b>									
10. Total number of news articles	1.315	1.099	0.753	-0.07	0.03	<b>0.05</b>	<b>0.05</b>	0.26	0.11	-0.07	0.02	0.00								
11. Firm size	9.275	9.370	1.646	0.01	<b>-0.04</b>	<b>0.21</b>	<b>-0.27</b>	<b>0.42</b>	<b>0.33</b>	<b>-0.24</b>	0.00	<b>-0.21</b>	<b>0.32</b>							
12. Slack	0.232	0.094	0.449	0.00	<b>-0.28</b>	<b>0.36</b>	<b>-0.25</b>	<b>-0.06</b>	<b>-0.11</b>	<b>-0.07</b>	<b>0.04</b>	-0.03	<b>0.08</b>	<b>0.30</b>						
13. Market uncertainty	0.115	0.072	0.128	0.02	-0.16	0.10	-0.20	0.00	-0.01	<b>0.07</b>	0.03	-0.02	0.03	<b>0.11</b>	<b>0.12</b>					
14. Market competition	1.365	1.479	0.525	<b>-0.05</b>	<b>-0.04</b>	-0.10	<b>0.09</b>	0.11	<b>0.12</b>	0.03	-0.03	<b>-0.05</b>	<b>-0.06</b>	0.01	<b>-0.13</b>	<b>-0.13</b>				
15. Prior CSR strength	3.431	2.000	3.366	<b>-0.06</b>	<b>0.14</b>	<b>0.04</b>	<b>0.05</b>	<b>0.36</b>	<b>0.41</b>	-0.25	<b>-0.14</b>	<b>-0.20</b>	<b>0.37</b>	<b>0.55</b>	<b>0.09</b>	-0.02	<b>0.07</b>			
16. Prior CSR concern	2.611	2.000	2.456	<b>0.09</b>	-0.02	<b>0.11</b>	<b>-0.19</b>	<b>0.16</b>	<b>0.44</b>	-0.22	<b>-0.06</b>	<b>-0.17</b>	<b>0.19</b>	<b>0.54</b>	<b>0.07</b>	<b>0.19</b>	-0.03	<b>0.41</b>		
17. CSR strength	3.792	3.000	3.632	<b>-0.07</b>	<b>0.15</b>	<b>0.03</b>	<b>0.06</b>	<b>0.37</b>	<b>0.40</b>	-0.24	<b>-0.15</b>	<b>-0.20</b>	<b>0.37</b>	<b>0.55</b>	<b>0.07</b>	-0.03	<b>0.07</b>	<b>0.94</b>	<b>0.41</b>	
18. CSR concern	2.776	2.000	2.490	<b>0.10</b>	-0.01	<b>0.11</b>	<b>-0.18</b>	<b>0.16</b>	<b>0.44</b>	-0.22	<b>-0.04</b>	<b>-0.16</b>	<b>0.19</b>	<b>0.55</b>	<b>0.08</b>	<b>0.18</b>	<b>-0.04</b>	<b>0.41</b>	<b>0.92</b>	<b>0.42</b>

*N* = 1,925.

Correlations that are significant at a level below 10 percent (two-tailed) are in bold.

Table 2. Regression analysis of CEO hubris on a firm's CSR

	CSR strength				
	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Panel A. Corporate responsible activities: CSR strength</b>					
Prior CSR strength	0.917*** (79.72)	0.917*** (80.11)	0.917*** (79.12)	0.917*** (78.76)	0.917*** (79.51)
ROA	0.818*** (3.71)	0.816*** (3.73)	0.790*** (3.58)	0.796*** (3.69)	0.814*** (3.84)
Firm risk	-0.025 (-1.42)	-0.025 (-1.43)	-0.024 (-1.37)	-0.025 (-1.40)	-0.025 (-1.39)
MTB	0.048 (1.59)	0.048 (1.58)	0.051† (1.69)	0.050 (1.66)	0.051† (1.70)
Analyst coverage	0.002 (0.44)	0.002 (0.40)	0.001 (0.35)	0.001 (0.30)	0.001 (0.31)
Firm age	0.000 (0.04)	0.000 (0.03)	0.000 (0.29)	0.000 (0.32)	0.000 (0.35)
CEO tenure	-0.002 (-0.87)	-0.002 (-0.84)	-0.003 (-1.06)	-0.003 (-1.16)	-0.003 (-1.13)
Male CEO	-0.490*** (-4.14)	-0.493*** (-4.12)	-0.478*** (-4.01)	-0.482*** (-4.07)	-0.483*** (-4.10)
Ownership	-0.066 (-0.15)	-0.086 (-0.19)	-0.093 (-0.22)	-0.071 (-0.17)	-0.085 (-0.20)
Total number of news articles	0.030 (0.64)	0.028 (0.62)	0.029 (0.65)	0.031 (0.69)	0.029 (0.68)
Firm size	0.245*** (9.42)	0.246*** (9.49)	0.240*** (9.11)	0.239*** (9.07)	0.240*** (9.23)
Slack	-0.095* (-2.17)	-0.098* (-2.11)	-0.100* (-1.96)	-0.104* (-2.09)	-0.103* (-1.98)
Market uncertainty	-0.276 (-1.64)	-0.272 (-1.64)	-0.259 (-1.54)	-0.285† (-1.77)	-0.290† (-1.77)
Market competition	-0.301 (-1.05)	-0.303 (-1.07)	-0.276 (-0.99)	-0.277 (-0.99)	-0.281 (-1.01)
CEO hubris	-0.086* (-2.17)	-0.088* (-2.15)	-0.079† (-1.95)	-0.081* (-1.97)	-0.083* (-2.00)
CEO hubris × firm size		-0.016 (-0.68)	0.006 (0.24)	0.003 (0.14)	0.001 (0.06)
CEO hubris × slack			-0.181** (-2.71)	-0.198** (-2.68)	-0.183* (-2.46)
CEO hubris × market uncertainty				0.348† (1.74)	0.354† (1.72)
CEO hubris × market competition					0.053 (0.59)
Industry fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Adjusted $R^2$	0.908	0.908	0.908	0.908	0.908
Observations	1,925	1,925	1,925	1,925	1,925
<b>Panel B. Corporate irresponsible activities: CSR concern</b>					
	Model 6	Model 7	Model 8	Model 9	Model 10
Prior CSR concern	0.823*** (42.84)	0.822*** (43.11)	0.822*** (43.14)	0.822*** (42.71)	0.821*** (42.08)
ROA	-0.006 (-0.02)	0.001 (0.00)	-0.003 (-0.01)	-0.010 (-0.03)	-0.045 (-0.15)
Firm risk	-0.019 (-1.12)	-0.020 (-1.16)	-0.019 (-1.16)	-0.018 (-1.06)	-0.019 (-1.11)

Table 2. Continued

	CSR concern				
	Model 6	Model 7	Model 8	Model 9	Model 10
<b>Panel B. Corporate irresponsible activities: CSR concern</b>					
MTB	0.015 (0.85)	0.015 (0.86)	0.015 (0.88)	0.016 (0.95)	0.015 (0.85)
Analyst coverage	-0.007† (-1.87)	-0.007† (-1.72)	-0.007† (-1.72)	-0.006 (-1.64)	-0.006 (-1.65)
Firm age	0.002 (1.28)	0.002 (1.29)	0.002 (1.28)	0.002 (1.26)	0.002 (1.22)
CEO tenure	-0.004† (-1.86)	-0.005† (-1.93)	-0.005† (-1.93)	-0.004† (-1.78)	-0.005† (-1.84)
Male CEO	0.179 (1.40)	0.185 (1.47)	0.187 (1.47)	0.191 (1.51)	0.189 (1.50)
Ownership	0.163 (0.65)	0.206 (0.81)	0.205 (0.81)	0.178 (0.71)	0.206 (0.83)
Total number of news articles	0.017 (0.35)	0.020 (0.41)	0.020 (0.41)	0.018 (0.37)	0.021 (0.45)
Firm size	0.173*** (5.71)	0.170*** (5.74)	0.170*** (5.64)	0.170*** (5.67)	0.171*** (5.75)
Slack	0.145 (1.57)	0.151† (1.66)	0.151† (1.66)	0.157† (1.75)	0.155† (1.77)
Market uncertainty	-0.016 (-0.10)	-0.017 (-0.11)	-0.016 (-0.10)	0.017 (0.09)	0.026 (0.13)
Market competition	-0.178 (-0.66)	-0.191 (-0.70)	-0.188 (-0.69)	-0.187 (-0.68)	-0.181 (-0.65)
CEO hubris	0.057* (1.97)	0.060* (2.12)	0.061* (2.06)	0.064* (2.19)	0.069* (2.37)
CEO hubris × firm size		0.032* (2.14)	0.035* (1.99)	0.038* (2.27)	0.042* (2.39)
CEO hubris × slack			-0.023 (-0.40)	-0.003 (-0.05)	-0.035 (-0.67)
CEO hubris × market uncertainty				-0.433** (-3.34)	-0.445*** (-3.56)
CEO hubris × market competition					-0.113† (-1.94)
Industry fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Adjusted $R^2$	0.865	0.865	0.865	0.865	0.865
Observations	1,925	1,925	1,925	1,925	1,925

Standard errors are clustered by industry.  $T$ -statistics are reported in parentheses.

\*\*\*, \*\*, \*, and † indicate significance levels below 0.1, 1, 5, and 10 percent, respectively (two-tailed).

socially responsible activities (Hypotheses 1a, 2a, 3a, 4a, and 5a). The dependent variable is *CSR Strength*. Model 1 includes all the control variables, moderating variables, and the main independent variable—*CEO Hubris*. *CEO Hubris* is negatively related to *CSR Strength* ( $\beta = -0.086, p < 0.05$ ), supporting Hypothesis 1a. The effect is also economically significant: when *CEO Hubris* changes from -1 to 1 (from less hubristic to more hubristic), compared to the mean (median) *CSR Strength* of our sample, socially responsible activities are reduced by about 4.54 percent (5.73%).

We tested the moderating effects on *CSR Strength* using Models 2–5 in Panel A of Table 2. We added the interactions between *CEO Hubris* and moderating variables progressively. All interactions terms were mean centered to avoid any potential multicollinearity issue (Aiken and West, 1991). In Model 2, the interaction between *CEO Hubris* and *Firm Size* is negative but not statistically significant ( $\beta = -0.016, p = 0.500$ ). Though the sign of the coefficient is consistent with our prediction, we did not find statistical support for Hypothesis 2a from our sample. In Model 3, the interaction term

between *CEO Hubris* and *Slack* is negative and significant ( $\beta = -0.181$ ,  $p < 0.01$ ). This suggests that, when firms have more slack, the effect of *CEO Hubris* on *CSR Strength* strengthens, consistent with Hypothesis 3a. The interaction between *CEO Hubris* and *Market Uncertainty* in Model 4 is positive and marginally significant ( $\beta = 0.348$ ,  $p < 0.10$ ), consistent with Hypothesis 4a that, for firms facing higher market uncertainty, the effect of *CEO Hubris* on *CSR Strength* is weaker. In Model 5, we include all four interactions. In particular, the interaction between *CEO Hubris* and *Market Competition* is positive but statistically insignificant ( $\beta = 0.053$ ,  $p = 0.560$ ). Therefore, Hypothesis 5a, which predicts that for firms facing higher market competition the effect of *CEO Hubris* on *CSR Strength* is weaker, was not supported by our data.

Panel B of Table 2 summarizes the results of testing the hypotheses related to socially irresponsible activities (Hypotheses 1b, 2b, 3b, 4b, and 5b). The dependent variable is *CSR Concern*. Model 6 includes all the control variables, moderating variables, and the main independent variable—*CEO Hubris*. *CEO Hubris* is positively related to *CSR Concern* ( $\beta = 0.057$ ,  $p < 0.05$ ), supporting Hypothesis 1b. The effect is also economically significant: when *CEO Hubris* changes from -1 to 1 (from less hubristic to more hubristic), compared to the mean (median) *CSR Concern* of our sample, socially irresponsible activities increase by about 4.10 percent (5.70%).

We tested the moderating effects on *CSR Concern* using Models 7–10 in Panel B of Table 2. In Model 7, the interaction between *CEO Hubris* and *Firm Size* is positive and significant ( $\beta = 0.032$ ,  $p < 0.05$ ). This suggests that, when firms are larger, the effect of *CEO Hubris* on *CSR Concern* strengthens, lending support to Hypothesis 2b. In Model 8, the interaction term between *CEO Hubris* and *Slack* is negative but not statistically significant ( $\beta = -0.023$ ,  $p = 0.714$ ), so Hypothesis 3b is not supported by our sample. Model 9 shows that the interaction between *CEO Hubris* and *Market Uncertainty* is negative and significant ( $\beta = -0.433$ ,  $p < 0.01$ ), consistent with Hypothesis 4b that for firms facing high market uncertainty the effect of *CEO Hubris* on *CSR Concern* is weaker. In Model 10, the interaction between *CEO Hubris* and *Market Competition* is negative and marginally significant ( $\beta = -0.113$ ,  $p < 0.10$ ). This lends support to Hypothesis 5b: for firms facing higher market

competition, the effect of *CEO Hubris* on *CSR Concern* is weaker.

In summary, the results were generally consistent with our hypotheses. The main effects of *CEO hubris* (Hypotheses 1a and 1b) were supported. The moderating effect of firm size was found in the model predicting socially irresponsible activities (Hypothesis 2b). More slack was found to strengthen the effect of *CEO hubris* in the model predicting socially responsible activities (Hypothesis 3a). We also found evidence supporting the moderating effects of market uncertainty in models predicting both positive and negative aspects of *CSR* (Hypotheses 4a and 4b). Market competition was found to weaken the main effects of *CEO hubris* on socially irresponsible activities (Hypothesis 5b).

We also conducted a robustness check with *CEO Hubris Continuous* as the *CEO hubris* measure, and the results are presented in Table 3. The results using *CSR Strength* as dependent variable are presented in the first column (Model 11) and using *CSR Concern* as dependent variable are presented in the second column (Model 12). The coefficients of *CEO Hubris Continuous* are significant and consistent with our expectations in both columns ( $\beta = -0.071$ ,  $p < 0.05$  in Model 11; and  $\beta = 0.068$ ,  $p < 0.01$  in Model 12), suggesting that our results are robust to alternative constructions of the hubris measure.

## DISCUSSION

Steve Jobs, former CEO of Apple Inc., was known for his extreme self-confidence or hubris. Although he achieved prodigious success, “Job’s cocky attitude and the lack of management skills contributed to Apple’s problem” (Koontz and Wehrich, 2007: 331). According to *Fortune* (2008), “Jobs likes to make his own rules, whether the topic is computers, stock options, or even pancreatic cancer. The same traits that make him a great CEO drive him to put his company, and his investors, at risk.” Interestingly, Jobs was also attacked for not publicly boasting about corporate philanthropy and ending Apple’s philanthropic programs in 1997 (Sorkin, 2011).<sup>1</sup>

<sup>1</sup> Recent news claims that Steve Jobs and family have been donating to charities for more than two decades anonymously (<http://appleinsider.com/articles/13/05/24/steve-jobs-family-has-been-giving-money-away-anonymously-for-more-than-2-decades>). Our focus is on the influence of *CEO hubris* on a firm’s (Apple) social engagement.

Table 3. Robustness analysis: continuous measure of CEO hubris

	DV: CSR strength Model 11	DV: CSR concern Model 12
Prior CSR (CSR strength in Model 11; CSR concern in Model 12)	0.917*** (79.77)	0.822*** (43.47)
ROA	0.832*** (3.85)	-0.011 (-0.04)
Firm risk	-0.027 (-1.50)	-0.018 (-1.07)
MTB	0.046 (1.52)	0.016 (0.94)
Analyst coverage	0.002 (0.42)	-0.007† (-1.83)
Firm age	0.000 (0.04)	0.002 (1.35)
CEO tenure	-0.002 (-0.90)	-0.004† (-1.81)
Male CEO	-0.491*** (-4.27)	0.180 (1.41)
Ownership	-0.077 (-0.18)	0.154 (0.61)
Total number of news articles	0.037 (0.80)	0.012 (0.24)
Firm size	0.245*** (9.49)	0.173*** (5.64)
Slack	-0.090* (-2.19)	0.142 (1.54)
Market uncertainty	-0.264 (-1.59)	-0.021 (-0.13)
Market competition	-0.285 (-0.98)	-0.184 (-0.68)
CEO hubris continuous	-0.071* (-2.12)	0.068** (3.09)
Industry fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Adjusted $R^2$	0.907	0.865
Observations	1,925	1,925

Standard errors are clustered by industry.  $T$ -statistics are reported in parentheses.

\*\*\*, \*\*, \*, and † indicate significance levels below 0.1, 1, 5, and 10 percent, respectively (two-tailed).

We use the same regression model as in Table 2. Instead of using *CEO Hubris*, we use the continuous variable *CEO Hubris Continuous* as our independent variable.

Is this combination of CEO hubris and inattention to CSR pure coincidence? This paper suggests that the two go hand in hand. Using a longitudinal archival dataset of S&P 1500 index companies from 2001 to 2010, we found strong empirical evidence that CEO hubris led firms to participate in fewer socially responsible activities and more socially irresponsible ones. These effects were weakened

when the firm was more dependent on stakeholders for resources.

Studying CSR has important strategic implications for firms, as investments made in enhancing social responsibility are best focused on building primary stakeholder relationships that are not easily replicated by competitors (Ramchander, Schwebach, and Staking, 2012). As such, researchers have been eager to identify the drivers of CSR. While some attend to the sociocognitive variables influencing the role of corporate executives in CSR (e.g., Wong *et al.*, 2011), to the best of our knowledge, none examine the effect of managerial psychological bias on CSR. This study therefore contributes to the literature by directly linking the two streams of research on CEO hubris and CSR. Indeed, studying hubris is not only relevant but also important for CSR research, as “no problem in judgment and decision making is more prevalent and more potentially catastrophic than [hubris]” (Plous, 1993: 217).

As one of the first empirical studies to test the relationship between CEO hubris and CSR, our paper contributes to upper echelons theory as well as the CSR literature. First, upper echelons theory predicts that top managers’ psychological characteristics are important determinants of firm behavior and outcomes (Hambrick, 2007; Hambrick and Mason, 1984). Affiliated research, which emphasizes the consequences of executive psychological bias on firms, has demonstrated that firms eventually pay for this bias (Chatterjee and Hambrick, 2007). Yet, the question of how top executives’ hubris influences CSR remains unanswered. It is equally imperative to investigate the effect of CEO hubris on a firm’s social behavior because, while executive effects may be stronger in the social (Donaldson, 1999; Freeman, 1984) than in the financial domain, it is generally assumed that market performance is largely influenced by external environmental factors and competition (Chen, 1996; Dess and Beard, 1984). Our findings suggest that, in addition to the costs identified in previous studies (Hayward and Hambrick, 1997; Li and Tang, 2010), CEO hubris also hinders long-term sustainability as it leads to a lower level of participation in socially responsible activities and a higher level of participation in socially irresponsible ones.

Perhaps more importantly, we identify conditions under which managerial bias may be mitigated. Given the impact of CEO hubris on firm strategy and performance, it is important to identify any boundary conditions that may limit the hubris

effects and reduce undesirable effects (e.g., Li and Tang, 2010). In seeking to identify factors that may limit inattention to socially responsible activities as well as unwanted engagement in socially irresponsible activities, we find that the effect of CEO hubris on CSR is weaker when the firm has a higher dependence on stakeholders for resources. By identifying conditions under which this cognitive bias may in fact be mitigated in areas such as CSR, we enrich the hubris research and upper echelons theory by extending understanding of the managerial implications of CEO hubris.

### Limitations and future research

The sample used in our main analyses only included those CEOs with media coverage, hence there could potentially be sample selection bias because firms whose CEOs invite media attention tend to be larger, have higher leverage and market-to-book ratios, and attract more analyst coverage. To address this concern, we controlled for these factors in our analyses. In additional analysis, we followed Hribar and Yang (2013) and coded the hubris of CEOs with no media coverage as 0 (as it is reasonable to assume that those CEOs are not overly confident). We also merged the ExecuComp database and the KLD dataset and generated a larger sample of observations (2,091 unique firms, 3,103 unique CEOs, and 12,518 observations). Our conclusions based on this larger sample were not affected.

The CEO hubris measure employed in this study deserves more discussion. Scholars have previously adopted an index measure of CEO hubris by incorporating three sources of CEO hubris: recent organizational success, media praise, and executive self-importance (Hayward and Hambrick, 1997). CEO hubris may also be measured by overoptimism in management earnings forecasts, after controlling for factors that may influence such optimism (Ben-David, Graham, and Harvey, 2006; Hilary and Hsu, 2011). Nevertheless, these measures tend to be based on different assumptions regarding the direction of causality and thus have different implications. For example, the index measure proposed by Hayward and Hambrick (1997) is mainly based on the *antecedents* of CEO hubris; i.e., the measure itself influences CEO hubris as it assumes that evidence of prior success increases the likelihood that an executive will subsequently behave in a hubristic manner (Mishina *et al.*, 2010). Alternatively,

whereas measures of overoptimism in management forecasts refers to the *consequences* of CEO hubris; it is a behavioral-reflective approach measure that captures how a CEO would make a management forecast if the CEO is hubristic. By contrast, our measure is a media-based reflective measure (Malmendier and Tate, 2008) that captures how external audiences perceive the hubristic state of the focal CEO. Given the fact that our theory mainly deals with the interrelations between CEOs and external audiences or stakeholders, this is probably the most appropriate in our context. Future research should discuss the application of different measures in other contexts.

Although we use stakeholder theory to explain the mechanism linking CEO hubris and CSR, we have not directly measured the resources or support provided by particular stakeholder groups. Our contribution would have been sharper had we been able to directly measure stakeholders' resources or support using surveys. Future research should consider this possibility and try to confirm the theoretical propositions in this study.

Relatedly, future research could explore the potential role of corporate governance mechanisms in the CEO hubris–CSR relationship. Managerial bias such as CEO hubris may lead to decisions and outcomes that are not in the best interests of stakeholders (Hayward and Hambrick, 1997; Li and Tang, 2010)—in this context, it hampers social initiatives—hence, it is important to design and put in place an effective corporate governance structure to curb managerial bias. Future efforts should try to identify a number of prominent incentive- or monitoring-based governance measures that firms could adopt to prevent hubristic CEOs from making poor decisions regarding CSR.

Finally, the findings here apply to public firms but cannot necessarily be extended to private firms, since they have different constraints and objectives and deal with different stakeholders. It is therefore important to extend these predictions to other social and cultural contexts. Margolis and Walsh (2003: 278) encouraged CSR research to stress the importance of developing models that incorporate omitted variables, testing mediating mechanisms and contextual conditions. We leave it to other researchers to validate our conclusions for firms with different ownership structures and that are embedded in different social contexts (cf. Wiersema and Bird, 1996). Such an investigation would provide insights into Jensen's (2002) "enlightened"

stakeholder theory, which postulates that firms should consider all types of stakeholders as an appropriate objective function.

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