Follow the Leader (or Not): The Influence of Peer CEOs' Characteristics on Inter-Organizational Imitation

Abhinav Gupta*
589 Paccar Hall
Department of Management and Organization
Foster School of Business
The University of Washington
Seattle, WA 98195
814-777-8584
abhinavg@uw.edu

Vilmos F. Misangyi
416 Business Building
Department of Management and Organization
Smeal College of Business
The Pennsylvania State University
University Park, PA 16802
814-867-2675
vfm10@psu.edu

Keywords: upper echelons, inter-organizational imitation, practice diffusion

Running Head: The Influence of Peer CEOs' Characteristics on Inter-Organizational Imitation

*Corresponding Author. Both authors contributed equally.

RESEARCH SUMMARY

We argue that because charisma and narcissism represent widely-held prototypes of effective and ineffective forms of leadership, respectively, the likelihood that a focal firm will imitate the practices of its peer firms is affected by these peer firms' CEO characteristics. We theorize that peer firm CEO charisma enhances the focal firm's imitation of peer firms' behaviors, while peer

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the Version of Record. Please cite this article as doi: 10.1002/smj.2765

firm CEO narcissism diminishes it. We further posit that the uncertainty of the context affects these imitation processes: industry dynamism and prior experience in a given strategic domain, respectively, strengthens and dampens focal firms' susceptibility to these peer CEOs' attributes. We test and find support for these ideas using a longitudinal sample of Fortune 500 firms in two distinct domains, corporate strategy and corporate social responsibility.

MANAGERIAL SUMMARY

When companies are uncertain about the costs and benefits of strategic actions this may lead them to imitate the actions of peer companies. But given the uncertainty, the challenge for executives is: which companies to emulate and which to ignore? In a sample of Fortune 500 companies, we find that the charisma or narcissism of a peer company's CEO positively or negatively influences, respectively, the degree to which the peer company's strategic actions are imitated. We reason that this is because these particular CEO attributes are widely believed to drive leadership effectiveness or ineffectiveness, respectively. We also find that the effects of these CEO characteristics on imitation are stronger in dynamic industry environments and weaker for companies that already have experience with the given strategy.

Organizational researchers have had a longstanding interest in understanding how and when firms imitate each other's actions. Studies have documented the presence of inter-organizational imitation processes for a multitude of behaviors, such as executive compensation plans (Davis and Greve, 1997), corporate strategies (Haunschild, 1993; Westphal, Seidel, and Stewart, 2001; Zhu and Chen, 2015), and social responsibility practices (Briscoe and Safford, 2008). This imitation process operates through managerial sensemaking and social comparison: when uncertainty about an action's risks and benefits exists, organizational decision-makers look to the behaviors of their peers for cues about the technical and social merits of the action (Cyert and March, 1963; Westphal and Zajac, 1997; Shropshire, 2010). A central question in this literature is: which firms are more likely to be emulated by others? Prior research suggests that certain social-structural attributes (large size; high status) and outcomes (high performance) of referent firms can make their actions more emulation-worthy to observing firms (e.g., Dutton and Freedman, 1985; Haunschild and Miner, 1997; Strang and Still, 2004).

What has yet to be considered is the possibility that attributes of the leaders of peer firms play a role in how their firms' actions are viewed by observing firms. Yet, this issue is an important one given that firms' strategies and actions reflect the decisions of top executives, most notably the CEO (Hambrick and Mason, 1984; Mintzberg, 1973). Indeed, research has shown that external stakeholders frequently view and interpret firms' actions in light of their understanding of who the CEOs are, and what the leaders' attributes imply about the volition of those actions and of their performance potential (Briscoe, Chin, and Hambrick, 2014; Chen and Meindl, 1991; Fanelli, Misangyi, and Tosi, 2009). Moreover, the business press tends to evaluate the actions of firms as though their leaders are the driving forces behind those decisions (Groth, 2011; Luckerson, 2014). Given the salience of CEOs to the outside world, how peer firms'

CEOs' personal attributes can influence the imitation behavior of observing firms remains an intriguing but unexamined topic.

In this study, we integrate research on inter-organizational imitation with insights from research on leadership categorizations to examine how the characteristics of the decision-makers of peer firms—i.e., the peer firms' CEOs—affect focal firms' imitation. Specifically, we build upon the literature on uncertainty-based imitation processes and integrate it with theory and evidence on the socio-cognitive effects of leadership characteristics (i.e., leader categorizations; e.g., Lord and Maher, 1991; Fanelli et al., 2009) to posit that the likelihood that focal firms will emulate the practices of peer firms is affected by the charisma or narcissism of the peer firms' CEOs. We argue that both of these CEO characteristics will influence the contagiousness of peer firms' strategic actions due to the leadership categorizations they evoke—as we discuss below, a focal firm's decision to imitate is subject to an automatic socio-cognitive influence process that is triggered when these particular CEO characteristics are observed. Yet, the selective contagion influence that these two leadership attributes have on the leadership of observing firms will be different: charisma has a positive effect on imitation—given that it is universally recognized as a prototypical form of effective leadership—while narcissism has a negative effect as it embodies all of the characteristics that have been found to be universally perceived as detrimental to effective leadership (Den Hartog et al., 1999; Offermann et al., 1994). Uncertainty both underlies the inter-organizational imitation process (e.g., Lieberman and Asaba, 2006) as well as heightens categorization processes (e.g., Hogg and Terry, 2000), and we therefore also examine the moderating effect of contextual uncertainty in two ways: whether the hypothesized effects of these two peer CEO traits on the imitation process are stronger in contexts involving high

uncertainty—i.e., in highly dynamic industries—and weaker when there is less uncertainty—i.e., when the focal firm has prior experience in the strategic domain.

We expect these theorized leadership effects to occur in any domains that involve means-end uncertainty and thus developed general hypotheses. We then tested our hypotheses in different strategic domains in which decision-makers lack ex-ante knowledge about the performance benefits of the actions. In particular, we examined strategic actions aimed at corporate social responsibility (CSR) as well as corporate strategy, the latter with respect to product market diversification and international diversification. After decades of research, the relationship between CSR and firm performance is decidedly equivocal (e.g., Di Giuli and Kostovetsky, 2014; McWilliams and Siegel, 2000; Orlitzky, Schmidt, and Rynes, 2003). The performance implications of product market and international diversification are also not clear (Hill & Hoskisson, 1987; Hitt, Hoskisson, and Kim, 1997; Palich, Cardinal, & Miller, 2000; Tihanyi, Griffith, and Russell, 2005; Hitt, Tihanyi, Miller and Connelly, 2006). At the same time, these strategic behaviors are quite salient. The costly nature of CSR practices, and thus the controversy that surrounds them, draws attention to these practices (e.g., Hiatt, Grandy, and Lee, 2015). Diversification is a high profile strategic decision fraught with complexities and uncertainty as firms struggle with integrating new businesses into their existing corporate structures and with the cultural, political and legal challenges of maintaining operations in other countries (Tihanyi et al., 2005; Hitt et al., 2006). Furthermore, these practices are especially relevant to our current inquiry given that previous research has considered how focal firm CEOs' charisma (Wowak et al., 2015) or narcissism (Petrenko et al., 2015; Zhu and Chen, 2015) affect the implementation of these practices.

The primary aim of this study is to contribute to research on inter-organizational imitation, which has thus far emphasized that social-structural attributes of firms affect the perceived emulation-worthiness of their decisions, by examining whether leaders also play a crucial role in affecting the imitation process. . Our study and its findings advance this research stream by showing that peer firm leadership characteristics—in particular, CEO charisma and narcissism—do indeed influence the degree to which firms' strategic behaviors are emulated by other firms in the peer group. In suggesting that firm strategies can be influenced by the attributes of CEOs leading *other* firms through socio-cognitive processes, our study also advances research on upper echelons, which has until now focused on how CEOs' attributes affect the strategies of their own focal firms. Thus, the socio-cognitive approach to leadership advanced here opens up a whole new avenue for future upper echelons research, as well as strategic leadership, more generally.

THEORETICAL BACKGROUND

Prior research has documented the prevalence of inter-organizational imitation in many organizational fields, including corporations (Davis, 1991), universities (Briscoe et al., 2015), and hospitals (Westphal, Gulati, and Shortell, 1997). Inter-organizational imitation occurs as an information-based contagion which operates through social comparison processes as a means of reducing uncertainty (see, Greve, 1995; Lieberman and Asaba, 2006). While scholars have applied diverse epistemic and methodological lenses to study it, the contagion of behaviors across firms has received significant support across a variety of domains, including economics ("information cascades" or "herding", e.g., Bikhchandani, Hishleifer, and Welch, 1992), population ecology ("legitimation"; e.g., Hannan and Carroll, 1992), institutional sociology

("mimetic isomorphism", e.g., DiMaggio and Powell, 1983), and behavioral strategy ("vicarious learning" or "imitation", e.g., Cyert and March, 1963; Geletkanycz and Hambrick, 1997; Westphal et al., 2001).

In their comprehensive review of the inter-organizational imitation literature, Lieberman and Asaba (2006) highlighted that regardless of whether inter-firm contagion operates through unconscious socio-cognitive processes (i.e., herding, isomorphism; legitimation) or more consciously deliberative processes (i.e., vicarious learning; risk reduction), all such imitation has a basis in rationality and is founded in perceptions of effectiveness (see also Strang & Meyer, 1993). Theory and evidence suggest that actors resort to imitation when they are faced with means-ends ambiguity about the potential benefits of enacting particular practices or behaviors. Firm executives are considered to be boundedly-rational decision makers who use simplified models of reality that are shaped by their experiences, values, and beliefs (March and Simon, 1958) and who rely on cognitive shortcuts and easily accessible information whether or not it is the most diagnostic (e.g., Cyert and March, 1963; Geletkanycz and Hambrick, 1997). The costs and benefits of strategic decisions are frequently not known with certainty, yet stakeholder scrutiny of such actions tends to be high; thus, executives tend to reduce this uncertainty by observing external referents, such as their peers, and using their behaviors and practices as cues for effectiveness (e.g., see Greve, 1995; Westphal and Zajac, 1997; Lieberman and Asaba, 2006). As Lieberman and Asaba (2006: 366) succinctly put it, managers make sense of uncertain conditions by following "others that are perceived (sometimes erroneously) as having superior information"[1].

[1]As such, the literature on inter-organizational imitation is essentially consistent with strategic notions of legitimacy which emphasize how legitimacy helps to "achieve organizational goals" (i.e., effectiveness)—which differs somewhat from institutional perspectives that center on legitimacy as the organization's adherence to normative values or "constitutive societal beliefs" (i.e., appropriateness) (Deephouse & Suchman, 2008: 52; see also Lieberman & Asaba,

The basic supposition in this literature, therefore, is that organizations tend to "imitate actions that have been taken by a large number of other organizations" within the same social reference group (i.e., field, industry, etc.) (Haunschild and Miner, 1997: 474). In circumstances characterized by means-ends ambiguity, the prevalence of a particular practice or behavior among peer organizations acts as social proof of its perceived effectiveness (DiMaggio and Powell, 1983; Rao et al., 2001)—which, as just discussed, operates whether or not peers have better information or whether the practices result in superior performance (Lieberman and Asaba, 2006)—and ample evidence supports this baseline proposition (e.g., Fligstein, 1985; Rhee, Kim, and Han, 2006).

While the frequency of actions among peer firms lends credence to the practices, it is a very "noisy" signal of a practice's efficacy which may not always be enough to persuade observing firms to follow suit (Strang and Soule, 1998; Briscoe, Gupta, and Anner, 2015). In other words, there is plenty of room for heterogeneities in the inter-organizational imitation process – a topic of great interest for organizational theorists (Greve, 2005; Strang, 2010)—and the cumulative evidence in this literature suggests that focal decision makers tend to be more likely to imitate frequently-used behaviors when they are executed by peers with certain attributes (e.g., larger size or higher status) or outcomes (i.e., superior performance) that enhance the perceived effectiveness of the practice (e.g., Baum, Li, and Usher, 2000; Connelly et al., 2011; Haunschild and Miner, 1997). Moreover, evidence clearly shows that even when focal firms seek to imitate their peers in an adaptive manner (i.e., learn from their peers' successful outcomes) such learning is still heavily influenced by more unconscious socio-cognitive

2006; Suchman, 1995). Our theorization builds on this literature and thus centers on effectiveness. We take up a consideration of our theory's implications for imitation based upon appropriateness (i.e., a more institutional perspective of legitimacy) in the discussion section.

processes: managers selectively imitate firms with attributes that enhance their perceived effectiveness (e.g., status, reputation) (Strang and Still, 2004). Our study extends this line of thinking to argue that, in addition to peer firms' social structural attributes, the characteristics of their CEOs will have a crucial influence on focal firms' inclination or resistance to emulate those peer firms' actions.

The Influence of CEO Charisma and CEO Narcissism on Imitation

We build on the foregoing literature to suggest that when practices are executed by peer firms led by either charismatic or narcissistic CEOs, these characteristics trigger leader categorizations by observing focal firm decisions makers, and hence affect their imitation. Leader categorizations operate through perceivers' implicit leadership theories (ILTs): individuals have prototypical notions of leader characteristics, and these schemas are activated when they encounter a leader (Lord and Maher, 1991; see also Epitropaki et al., 2013). In other words, leaders are "recognized based on the fit between an observed person's characteristics with the perceiver's implicit ideas of what 'leaders' are" (Den Hartog et al. 1999: 224-225). The leader categorizations that we theorize here therefore operate through what Lord and Maher (1991: 34) referred to as "recognition-based" categorization processes—i.e., "leadership is *recognized* from the qualities and behaviors" of the leader—which differ from "inferential-based" perceptual processes that involve leadership being "*inferred* from the outcomes of salient events" (italics in original; Lord and Maher, 1991: 34)[2]. This is not to say that inference-based perceptions do not operate in the imitation process, or that the recognition-based perceptions at the center of our focus somehow supersede them in it. Indeed, as we further elaborate below, our

[22] Perhaps the most prominent example of inferential-based leader perceptions is the "romance of leadership" in which observers attribute extremely high or low performance to leaders rather than to environmental conditions (e.g., Meindl, Erlich, and Dukerich, 1985).

analytic approach was conducted to account for any effects that inferential-based perceptions may also have on the emulation process.

Both charisma and narcissism have been found to be universally recognized leadership attributes that produce prototypical leader categorizations (Den Hartog et al., 1999; Offermann et al., 1994), and thus, we suggest that these specific peer firm CEO characteristics should be especially salient and influential in inter-organizational imitation processes that are rooted in the bounded rationality of executives. Just as the larger size or higher status of peer firms serve as a cognitive heuristic that stimulate emulation—even when the action may not result in superior performance (Strang and Still, 2004)—we argue that so too do these particular exemplar characteristics of strong leadership.

Before further developing our arguments, we elaborate one of our key premises: that these peer firm CEO characteristics will be observed by the decision makers of focal firms. That is, our theory posits that when focal firms' decision makers—focal firms' CEOs and top management—look to their peers as referents to alleviate uncertainty about strategic actions (e.g., Westphal et al., 2001), they will closely hew to the characteristics of the top leadership of the peer firms – in addition to the characteristics of the peer firm itself. There will be many opportunities for focal firms' decision-makers, including CEOs, to develop familiarity with the characteristics and tendencies of their peer firms' CEOs. It has been well established that corporate elites often develop familiarity with each other through common membership to corporate boards (Davis, 1991), and trade associations (Schnurbein, 2009), or relatively informal networks, such as elite social clubs (Domhoff, 1967), and advice networks (Westphal et al., 2006). Furthermore, although such firsthand encounters of peer CEOs characteristics surely invoke ILTs, such proximity is not necessary. ILTs operate even through distal observation

(Fanelli & Misangyi, 2006; Lord & Maher, 1991; Shamir, 1995), and peer CEOs and their characteristics are with little doubt highly observable: CEOs of major corporations tend to be prominent public figures who are frequently interviewed by journalists and covered by electronic media (Westphal, and Deephouse, 2011). CEOs are also known to frequently voice their opinions on social issues (Chatterji and Toffel, 2016) and leave their imprints on organizational communication (Chatterjee and Hambrick, 2007; Fannelli et al., 2009).

Our arguments about the influence of peer CEO charisma and narcissism in the inter-organizational imitation processes rest on a two-step logic. First, both attributes will lend to observing firms' decision-makers making agentic attributions about the practice in question—that is, these leader characteristics enhance the perception that the peer firms' behaviors were purposively enacted by the peer firms' CEOs rather than them being due to external forces such as normative or mimetic pressures. In short, these particular attributes lend to observers' perceptions that the peer firms' actions are due to strong leadership. The leader categorizations they elicit should thereby be highly influential in the emulation process as such agentic attributions stand as a critical influence on imitation because they reinforce notions of rationality (Strang and Meyer, 1993). Indeed, evidence suggests that attributes of peer firms that lend to observers' viewing peer firm behaviors as the result of autonomous and independent decision making affects the behaviors of external observers, including the leadership of other peer institutions (Briscoe et al., 2015). Our first, general, argument therefore is that both CEO charisma and CEO narcissism lead to prototypical leader categorizations which will be influential in the inter-organizational imitation process: strategic actions undertaken by peer firms with a charismatic or narcissistic CEO are perceived by observing firms' decision makers as being volitionally enacted by strong leaders.

Our second contention, however, is that these two CEO characteristics will produce opposite effects on focal firms' imitation decisions: observing firms' decision makers will tend to view behaviors enacted by charismatic CEO peers as effective, and thus have a positive influence on imitation, whereas actions of narcissistic CEO peers will be seen as less effective and thus have a negative influence on imitation.

The Positive Influence of Peer Firms' CEO Charisma

As discussed above, strategic actions in which decision-makers lack ex-ante knowledge about the performance benefits of the actions lend to firms looking to their peers as a means of inferring the merits of the practices, which may lead to the emulation of their peers' actions. While all strategic choices involve at least some degree of uncertainty and ambiguity (e.g., Cyert & March, 1963; Geletkanycz & Hambrick, 1997), strategic actions aimed at corporate social responsibility and corporate strategy are particularly uncertain strategic domains that lend to inter-organizational emulation (Lounsbury, 2001; Connelly et al., 2011; Zhu and Chen, 2015). We suggest that when these strategic behaviors are enacted by charismatic CEOs at peer firms, this will enhance the perceived effectiveness of such behaviors in the eyes of focal firms' decision makers, and thus positively influence the likelihood of the observing firms' emulations of the behaviors. Like all schematic and categorical processing, leader categorizations help perceivers make sense of the world around them and therefore operate under conditions of limited information or uncertainty. Thus, the mechanism at work here is of a socio-cognitive nature: the influence of peer firms' CEOs' charisma (or narcissism) on focal firms' decisions to imitate strategic actions occurs as a result of an automatic socio-cognitive process in the face of uncertainty about the actions. In other words, this CEO leadership characteristic affords

"outsiders with a cognitive shortcut that allows them to reduce their evaluative uncertainty" (Fanelli and Misangyi, 2006: 1053).

Our argument that the charisma of peer firms' CEOs[3] will have a positive influence on focal firms' imitation builds directly on the findings of prior research. Not only has charisma been found to be a prototypical leader categorization (Den Hartog et al., 1999; Offermann et al., 1994), but survey evidence from 60 countries suggests that the characteristics and behaviors that comprise charismatic leadership are "universally seen as contributing to *outstanding* leadership", and thus these characteristics have been "universally endorsed as *positive*" (emphasis added; Den Hartog et al., 1999: 225). Furthermore, although the ILT literature has primarily focused on leaders and followers in group or unit settings, research on CEO charisma suggests that the influence of leader categorizations can operate on more distal observers (e.g., Chen & Meindl, 1991; Fanelli and Misangyi, 2006; Fanelli et al., 2009). For example, Fanelli et al. (2009) found that CEO charismatic vision statements favorably influenced securities analysts' ratings, a finding they theorized as due to analysts categorizing the firms as having effective leadership that provides a clear path toward future performance.

Formally, we hypothesize that:

Hypothesis 1: The charisma of peer firms' CEOs will strengthen the positive effect of peer firms' strategic behaviors on focal firms' behaviors.

The Negative Influence of Peer Firms' Narcissistic CEOs

On the other hand, we suggest that when focal firms look to their peer firms to reduce uncertainty about strategic actions such as corporate social responsibility or diversification

[3] For ease of exposition, we refer to CEOs as narcissistic or charismatic, but in reality, these attributes are conceptualized and measured on a continuum ranging from "very low" to "very high". Also, while our theory posits these CEO attributes to have contrasting effects on peer firms, we account for the potential overlap between these constructs in our analyses.

practices, observing such actions implemented by peer firms led by narcissistic CEOs will both engender perceptions of autonomy and produce *negative inferences* about the underlying effectiveness of those behaviors. Evidence on ILTs clearly suggests that the leadership characteristics and behaviors that essentially comprise narcissism are seen as a type of leadership that is ineffective or undesirable—i.e., narcissistic characteristics produce a negative leader categorization. Indeed, narcissism involves all of the characteristics found by Offermann et al.'s (1994) study to be a prototype of ineffective leadership: the leader qualities of "domineering," "pushy," "dominant," "manipulative," "power-hungry," "conceited," "loud," "selfish," "obnoxious," and "demanding" were found to comprise a negatively viewed leader categorization (which they labeled as "Tyranny"). Moreover, Den Hartog et al.'s (1999: 225) 60 country survey found that the leader attributes of "self-centered," "face-saver," and "autocratic" are "universally seen as negative." All of these attributes are embodied in the conceptualization and measurement of narcissism (e.g., Raskin and Terry, 1988; Raskin et al., 1991). Furthermore, studies have consistently shown that narcissists are viewed negatively by others: observers see them as "conceited, competitive, disagreeable, hostile, selfish, or aggressive" (Back, Schmukle, and Egloff, 2010; Golmaryami and Barry, 2010; Raskin, Novacek, and Hogan, 1991).

Social psychologists have examined the effects of narcissism on individuals' efficacy as leaders and increasingly have pointed out that the costs far outweigh the benefits. While narcissism is known to offer benefits to individuals who possess it, in terms of their career success and psychological well-being (Wallace and Baumeister, 2002; Miller et al., 2007), it is considered detrimental to their performance as leaders (Martin, Côté, and Woodruff, 2016). Individuals high on narcissism tend to be poor team players, often exhibiting arrogance and aggression against their peers (Leckelt et al., 2015), which can result in poorer within-group

communication and performance (Nevicka et al., 2011). Narcissists exhibit low empathy (Morf and Rhodewalt, 2001), less interest in nurturing relationships (Emmons, 1989), and the tendency to derogate others and take credit for their successes (Campbell et al., 2000; Park and Colvin, 2015) – factors that combine to produce a strong negative effect on followers' desire to associate with the leader (House and Howell, 1992).

Research in strategic management also provides support for the idea that narcissistic CEOs tend to take actions that deviate from effective decision-making and frequently result in suboptimal outcomes. For instance, narcissistic CEOs are known to engage in grandiose actions that attract attention, and cause significant performance fluctuation (Chatterjee and Hambrick, 2007), tend to be relatively immune to objective feedback about their performance, are exceedingly driven by social praise (Chatterjee and Hambrick, 2011), ignore the advice of directors (Zhu and Chen, 2015), and engage in personal enhancement by expending firm's resources on wasteful CSR activities that hurt financial performance (Petrenko et al., 2015).

Given that narcissism has received considerable attention by management scholars, we emphasize that our theory concerning how the narcissism of *peer firm CEOs* affects observing firms is a clear departure from prior work that has focused on how this attribute affects the behaviors of leaders who possess it, as well as the behavior and performance of their focal firms (Chatterjee and Hambrick, 2007; Zhu and Chen, 2015). This particularly puts into perspective Zhu and Chen's (2015) recent findings that narcissism affects how CEOs themselves engage in imitation. Indeed, their findings have two important implications for our study. On the one hand, they further the notion that observing a narcissistic CEO will trigger attributions of agency—though such CEOs imitate others, their decision making gives the appearances of autonomy as they don't listen to their boards—and suggest that their actions will be seen by their peers as

being ineffective[4]. On the other hand, their findings also clearly imply the importance of taking into account the narcissism of the focal firm's CEO as it may have an effect on their own decisions—which we do in our analyses.

Altogether, the research on narcissism and leader categorizations suggests that when focal firms look to reduce the uncertainty surrounding strategic actions such as CSR or diversification practices, instead of treating such strategic actions of peer firms led by narcissistic CEOs as the evidentiary basis for those practices' merits, observers will be more likely to view them as outcomes of the CEOs' personal self-enhancement motives, brash tendencies, and idiosyncratic preferences (cf., Petrenko et al., 2015). These negative inferences will tend to attenuate focal firms' likelihood of imitating those peer firms' behaviors that are led by narcissistic CEOs. Thus, we expect that when peer firms are led by narcissistic CEOs, this will have a negative effect on focal firms' emulations of those peer firm strategic behaviors.

Hypothesis 2: The narcissism of peer firms' CEOs will weaken the positive effect of peer firms' strategic behaviors on focal firms' behaviors.

The Moderating Effect of Contextual Uncertainty

Given that uncertainty provides the foundation for the described inter-organizational imitation processes (Greve, 1995; Lieberman & Asaba, 2006), and that categorization processes become more influential as uncertainty rises (Hogg & Terry, 2000), it follows that the imitation effects hypothesized above should be stronger in contexts involving high uncertainty and weaker in contexts with low uncertainty. Therefore, we examine this moderating effect of contextual uncertainty in two ways.

[4] Interestingly, Zhu and Chen suggest that narcissistic CEOs imitate strategies that they have personally seen and have been involved in at other firms because doing so is self-affirming both in terms of the correctness of their prior decisions as well as of their own brilliance and superior learning capabilities. Thus, these results should mean that narcissists will be viewed as both agentic and as making ineffective decisions—consistent with our arguments for a strong negative influence on observers' imitation decisions.

First, the above hypothesized leader categorization processes that underlie the effects of peer firm CEO charisma or CEO narcissism on imitation are stronger in dynamic industries. As leadership prototypes, peer firm CEOs' charisma or narcissism should each be especially helpful at reducing uncertainty in observers' perceptual processes about the peers' practices (cf., Hamilton and Sherman, 1996)—such prototypes are very "attractive to individuals who are…in situations characterized by great uncertainty" (Hogg and Terry, 2000: 124) precisely because they facilitate clear categorizations that reduce uncertainty about what is being observed. The effect of these two peer firm CEO attributes on imitation should therefore be stronger in highly dynamic industries, as the ambiguous, uncertain, and volatile conditions that characterize highly dynamic industries tend to increase the difficulty that managers have in discerning what constitutes effective managerial action and thus which peer actions should be considered as important and worthy of their attention (Abrahamson and Hambrick, 1997; Hambrick and Abrahamson, 1995). In highly dynamic industries, "means-ends linkages are poorly understood" (Hambrick and Finkelstein, 1987: 381) and the likely heterogeneity in managerial cognitions, and thus strategic behaviors, in such environments tend to increase the difficulty that firm decision makers have in deciding the suitable course of action (Abrahamson and Fombrun, 1994; Rindova & Fombrum, 1999.)

Past scholarship on charisma, which has theorized and shown that a moderating influence of uncertainty is particularly important to CEO charisma and its effect on distal organizational constituents (e.g., Fanelli and Misangyi, 2006; Waldman and Yammarino, 1999; Tosi et al., 2004), is supportive of our contention. While we know of no past theory and evidence with respect to the effect that uncertainty has on observers' perceptions of narcissism, we nevertheless expect that the same fundamental explanation as to why uncertainty heightens the effect of

charisma also applies to narcissism. That is, we suggest that the effect of both of these types of leadership on observers are heightened in 'weak psychological situations'—i.e., situations characterized by much ambiguity and uncertainty surrounding means-ends relationships (Mischel, 1977)—as such weak situations create "strong orientation needs on the part of potential followers" (Shamir and Howell, 1999: 264).

In short, we suggest that the archetypical nature of charismatic and narcissistic leadership—both of which portray empowered human control over the firm's practices and future—each afford a categorization of the firm that helps to cut through the mist of uncertainty that pervades in highly dynamic industry environments. Therefore, the above positive and negative effects that peer firm CEO charisma and narcissism have on imitation, respectively, will be strengthened by industry dynamism. Specifically,

> *Hypothesis 3a: Industry dynamism will strengthen the positive effect that the charisma of peer firms' CEOs has on the positive relationship between peer firms' strategic behaviors and focal firms' behaviors.*
>
> *Hypothesis 3b: Industry dynamism will strengthen the negative effect that the narcissism of peer firms' CEOs has on the positive relationship between peer firms' strategic behaviors and focal firms' behaviors.*

Second, as Lieberman and Asaba (2006: 373) have highlighted, imitating others' practices "appeals most to those [focal firms] with little prior information on which to base a decision." Therefore, to the extent that focal firms have prior experiences with the strategic practice, this should tend to reduce the focal firms' decision makers' uncertainty about the practice. Firms often combine vicarious learning (i.e., through imitation) with their own experiential learning with the practice (Cyert and March, 1963), and the greater familiarity or certainty about the given strategic domain can be expected to generally lessen the influence that peer firms' actions have on focal firms' decision-making—when a focal firm has prior experience with a practice, there is less need to imitate (Lieberman & Asaba, 2006). The

reduced uncertainty about the practice that comes with the focal firms' experiences with it should also lessen the effects of peer CEO characteristics on the inter-organizational imitation process. The categorization processes invoked by these two leadership prototypes will be less influential in this situation precisely because they are less needed—following from the preceding argument, the focal firms' familiarity with the practice will lessen the need for sensemaking and thereby diminish the focal firms' reliance on categorizations to form beliefs about the practice. Put another way, the focal firms' own experiences with the practice renders a less 'psychologically weak situation' wherein the focal firms' 'orientation needs' are reduced thereby lessening the potential impact that these leadership prototypes may have on the focal firms (cf., Shamir and Howell, 1999).

Hypothesis 4a: Focal firms' prior experiences with the strategic practice will weaken the positive effect that the charisma of peer firms' CEOs has on the positive relationship between peer firms' strategic behaviors and focal firms' behaviors.

Hypothesis 4b: Focal firms' prior experiences with the strategic practice will weaken the negative effect that the narcissism of peer firms' CEOs has on the positive relationship between peer firms' strategic behaviors and focal firms' behaviors.

METHODS

Sample

Our sampling frame consisted of major US corporations that made the list of Fortune 500 companies at any time during 2001-2008. We chose 2001 as the start of the observation period because this is after the advent of online video streaming websites, which, as we will describe, is our primary source of data on the CEO characteristics of charisma and narcissism. In our final sample, we only included those firm-year observations in which data were available on at least three industry peer companies. After accounting for missing data, our final sample consisted of 251 companies spanning 1,158 firm-year observations during 2001-2008 for firms' CSR practices, 174 companies spanning 1,235 firm-year observations during 2001-2012 for firms'

international diversification, and 250 companies spanning 1,839 firm-year observations during 2001-2012 for firms' product-market diversification. As we will describe, this difference in study periods is a function of data availability on each of the three dependent variables.

Dependent Variables (measured in time *t*)

As outlined in the introduction, while our theory may apply to essentially all strategic behaviors that involve uncertainty, we tested our ideas on two distinct and non-over lapping strategy domains—CSR and Corporate Strategy (both international and product-market diversification). These strategic behaviors were especially pertinent to our inquiry given that prior research has already established that these practices are subject to inter-organizational imitation (e.g., Lounsbury, 2001; Zhu & Chen, 2015), and moreover, both domains have been the subject of previous research on CEO charisma (Wowak et al., 2015) and CEO narcissism (Petrenko et al., 2015; Zhu and Chen, 2015). We focus on both domains because they differ in the type of uncertainty involved - while the uncertainty regarding CSR emerges from meeting expectations of non-market constituents (Baron, 2003), and maintaining positive social evaluations (Barnett and Pollock, 2012), the uncertainty in corporate strategy stems from concerns about financial profitability and competitive advantage (Hitt et al., 1997). Thus, testing our hypotheses in both domains helps to establish the broader generalizability of our theoretical arguments.

It is also important to note that although diffusion studies have often utilized event-history models to study mimetic influences on discrete decisions, such as adoption of poison pills and golden parachutes (Davis and Greve, 1997; Briscoe and Safford, 1998), our focus here on the inter-organizational imitation of ongoing strategic behaviors follows previous strategy research which has examined imitation processes in varied strategy domains, such as acquisition

behaviors, business strategy and international diversification (Geletkanycz and Hambrick, 1997; Westphal, Seidel, and Stewart, 2001; Haunschild, 1994; Zhu and Chen, 2015). One benefit of our focus on ever-shifting strategic behaviors is that it allows us to take into account the degree or "magnitude" of actions and subsequent imitation over a period of time.

Corporate Social Responsibility. To capture each firm's CSR actions, we used data from the KLD database, which is widely recognized as the best available source of time-series data on CSR practices. KLD provides ratings of companies on a number of CSR strengths and concerns, indicated in binary terms. Following prior research (e.g. Hillman and Keim, 2001; Wowak et al., 2015), we measure firm's CSR profiles as the sum of all the strengths minus concerns under each of the five categories: employee relations, diversity, product quality, environment, and community relations. We then computed our measure of ***CSR profile*** by standardizing and averaging these fives scores. To reflect our interest in firm's recent CSR actions, we controlled for firm's ***Prior year CSR*** in all our models. Because the inter-year comparability of this data becomes tenuous after 2008 (given KLD's acquisition by RiskMetrics in 2009, and subsequently by MSCI in 2010) we examined firm's CSR profiles during the period of 2001-2008.

International diversification. We captured each firm's international diversification strategies and computed a ratio measure of the firm's international revenues divided by its total revenues in each year between 2001 and 2012 (Tallman and Li, 1996) as prior research suggests that this measure is an indicator of investment choices by companies to diversify internationally that are subject to inter-organizational imitation (Zhu and Chen, 2015). Data on international diversification were obtained from the Compustat segment database. Similar to our measurement

of CSR actions, we analyzed firms' recent international diversification behavior in each year by controlling for the international diversification in the prior year.

Product-market diversification. We measured firms' product market diversification using Palepu's (1985) entropy measure (also see, Jacquemin & Berry, 1979), which has been used and validated by a large number of studies in strategic management (e.g. Baysinger & Hoskisson, 1989; Hill, Hitt, & Hoskisson, 1992; Hoskisson, Hitt, Johnson, & Moesel, 1993;) and is computed as:

$$PDT = \Sigma_i \, [P_i \times \ln(1/P_i)],$$

where P*i* is the sales emanating from segment *i* and ln(l/P*i*) is the weight assigned to each segment (logarithm of the inverse of segment *i*'s sales). Data on product market diversification were obtained from the Compustat segment database. Similar to the other two strategic actions, we analyzed firms' recent product market diversification behavior in each year by controlling for the product market diversification in the prior year.

Independent and Moderator Variables (measured in *t-1* unless noted otherwise)

CEO charisma and CEO narcissism. To capture CEO charisma and CEO narcissism, we employed the psychometrically validated "thin slice" video-metric approach to construct measurement (Ambady and Rosenthal, 1992; Connelly and Ones, 2010; Benjamin and Shapiro, 2009) in which these two attributes were each rated based on a video clip of each CEO. This approach has been effectively used in recent organizational research (Petrenko et al., 2015) given its advantages: 1) it captures CEO characteristics unobtrusively, thereby avoiding the social desirability and reactivity biases inherent in survey research (Webb and Weick, 1983); 2) the use of third-party ratings of individual's attributes has been shown to have greater validity than self-reported attributes (Oh, Wang and Mount, 2001); 3) it is not based upon inferences derived from

outcomes (e.g., the firm's performance; Agle et al., 1999)—an issue we further verified in a supplemental analysis described below, and 4) it allows for the use of measurement scales that have been extensively tested for psychometric validity.

As part of this video-metric measurement approach, we searched for videos of CEOs of Fortune 500 companies in our sample through a number of publicly available internet sources, such as web-archives of media houses (e.g. CNBC, CNN) and YouTube. To help ensure that raters were rating CEO attributes and not other confounding aspects such as firm performance and reputation, we carefully edited all the videos to eliminate identifying information about the CEO and his/her employer firm (Petrenko et al., 2015). We further edited the videos to omit the sections in which the camera focus was not on the CEO. After editing out the sections in which executive's face and voice are not clearly accessible, we specified a minimum length of 2.5 minutes for a video to be included in our study.[5] We were able to obtain at least one usable video on 302 CEOs, representing 256 unique firms. As noted above, however, due to missing data on our dependent variables, the final samples that were used in each of the analyses were slightly smaller (CSR, 294 CEOs in 251 firms; international diversification, 256 CEOs in 174 firms; product-market diversification, 293 CEOs in 250 firms).

We followed the procedure used by Petrenko et al. (2015): we trained three raters—two graduate and one undergraduate business school students—and had them rate each CEO on items of a third-party adapted version of the Narcissism Personality Inventory (NPI-16; Raskin and Terry, 1988; Raskin et al., 1991). Similarly, we trained three different raters—one graduate and two undergraduate business school students—and had them assess each CEO on the items

[5] After empirically analyzing ratings obtained through video clips of varying lengths, Petrenko et al. (2015) established that 2.5 minutes is most efficient time duration for measurement of CEO characteristics, which allows for reliable measurement of constructs without causing rater fatigue.

adapted from a validated scale of CEO charisma (Agle et al., 2006). Both measures were reliable in terms of inter-item reliability (Cronbach alphas scores of .87 and .90 for charisma and narcissism, respectively), inter-rater reliability (ICC1=.58 and .52; ICC2=.81 and .77, respectively), and inter-rater agreement (rwg =.91 and .87, respectively). We also found evidence for the inter-temporal reliability of our measures on 30 randomly selected CEOs. For these CEOs, we had the six raters rate an additional video that was recorded at least one year apart from the video used in the main measurement and found that the two scores of CEO charisma and narcissism using different videos were correlated at .57 and .65, respectively. Our findings are consistent with prior research in strategic management suggesting that both narcissism and charisma are highly stable attributes of CEOs that do not change meaningfully during their tenure (Wowak et al., 2015; Petrenko et al., 2015).

Industry dynamism. Industry dynamism was measured by first regressing the annual industry averages of three firm performance variables – the growth in sales, the growth in operating income, and the growth in total employment – over the years in the study period (2001-12). We then assessed the volatility of each industry as the dispersion about the regression line by dividing the standard error of the regression slope coefficient from the regressions by the mean value of each variable (Dess and Beard, 1984; Keats and Hitt, 1988). The composite index resulting from a PCA of these three measures was our measure of industry dynamism.

Focal firm prior strategic experience. As already explained above, we controlled for the focal firm's prior year behaviors in each strategic domain and these lagged versions (t-1) of our dependent variables were then used to examine the potential moderating effect of firm's prior experience in a given strategic domain (CSR, international diversification, product-market diversification).

Estimation Technique and Control Variables

Given that we are interested in assessing how particular CEO attributes affect inter-organizational imitation processes, we followed prior research that has assessed how recent strategic behaviors of peer firms affect the subsequent behaviors of the focal firm (e.g. Paruchuri and Misangyi, 2015; Rhee et al., 2006; Zhu and Chen, 2015). This analytic approach required us to specify the reference group of "peer firms" that are to be emulated. Given that firms in the same industry are closely attend to each other's strategic behaviors, we followed prior research in defining peer firms by membership in the same industry (defined as 4-digit GICS code) (Greve, 1995; Gupta, Briscoe and Hambrick, 2017; Palmer, Jennings and Zhou, 1993). Similar to previous studies, this involved treating each firm as both the focal firm (when computing our DV) and as a peer firm for other focal firms (in computing our independent variables of peer firms' strategic actions) and to capture these appropriately, we ensured that measurement of our independent variables temporally preceded the measurement of our dependent variables.

The first analytical step is to specify attributes at the focal firm and in the industry that may account for the focal firms' tendency to engage in the behaviors of interest (i.e., CSR; corporate strategy). To rule out the commonly observed predictors of these strategic behaviors, we controlled for a number of factors at the focal firm level (again, measured in year *t-1*). To capture systematic differences due to firm prominence, we controlled for focal ***firm size*** *(logged sales)*. Since firms with high prestige often experience greater pressures to increase their CSR commitments, we added a control variable for focal ***firm prestige***, which reflected whether the firm had been featured in the Fortune magazine's best companies list. To capture the effect of the firm's profitability on its tilt toward new strategic actions, we controlled for focal firm ***return on assets*** (ROA) and ***market-to-book ratio*** (MTB). We assessed the possibility that strategic actions

may be affected by organizational slack by incorporating the focal firm ***debt-to-equity ratio***. One notable aspect of our analytical approach is that the same variables can be specified for both the focal firm and peer firms simultaneously. Thus, we were able to control for any effect that the ***focal firm's CEO charisma*** or ***narcissism*** may have on the focal firm's strategic behaviors, and then assess how the charisma or narcissism of peer firms' CEOs affect those firms' influence on the focal firm (i.e., to test our Hypotheses 1 and 2). We also controlled for ***CEO likeability***, which was measured using the same video-metric approach as our key independent variables in which our three respondents rated each CEO on a one-item ("S/he is likeable") 7-point Likert scale (ICC1=.50, ICC2=.75, and rwg=.89).

At the industry level, we controlled for a host of peer factors, all of which were computed as the averages of all firms in a given industry, excluding the focal firm. Since we focused on *recent strategic behaviors* to model inter-organizational influences, we controlled for recent strategy *levels* by adding controls of ***peer firms' CSR profile***, ***peer firms' international diversification, and peer firms' product-market diversification*** in the three sets of models. We also further controlled for a range of characteristics of the peer firm group: the ***number of peer firms***, ***peer CEOs' likeability***, ***peer firms' size***, ***peer firm's prestige***, ***peer firm's ROA*** and ***Peer firms' MTB***. To control for resource conditions in the environment, we included a measure of ***Industry munificence***[6]. Lastly, we included fixed effects for ***calendar years*** and ***industries*** (4-digit GICS) to control for other unobserved macro-environmental influences.

We followed the approach used by previous research (e.g. Rao, Monin and Durand, 2003) to test our hypotheses about how the charisma or narcissism of the CEOs of peer firms

[6] Industry munificence was measured by first regressing the annual industry averages of three firm performance variables – the growth in sales, the growth in operating income, and the growth in total employment – over the years in the study period (2001-12), dividing the slope coefficient from the regression equations by the means of each of the variables, and then computing a composite index resulting through PCA of these three measures.

affect the imitation process: we first captured the baseline inter-organizational imitation effect—i.e., the effect of peer firms' recent behaviors on a focal firm's behaviors—and then examined whether the studied peer CEO attributes enhance or mitigate this baseline effect of peer firms' actions on the focal firm. Thus, we first created measures of each of the ***recent strategic actions by peer firms (CSR, international diversification, product-market diversification)*** which capture the average recent actions, respectively, of industry peers from year *t-3* to *t-2* and year *t-2* to *t-1*. This approach entailed first taking the mean of each peer firm's recent actions and then taking the average across all peer firms in the given strategic domain [7]. We then examined the effects of the peer CEO characteristics on each of the three strategic actions—***recent strategic actions by peer firms by charismatic CEOs*** and ***recent strategic actions by peer firms by narcissistic CEOs—***which were computed for each strategic action ***(CSR, international diversification, product-market diversification***) by interacting each peer firms' recent strategic actions (i.e. the average of changes in each strategy from year *t-3* to *t-2* and year *t-2* to *t-1*) with each attribute of their CEOs, and then aggregating these terms for each strategic action at the level of each focal-firm observation[8]. In other words, we computed a weighted-average of peer firms' recent behaviors where those peer firms' CEO attributes were used as weights. These independent variables allow us to test whether strategic behaviors by CEOs with the particular

[7] We found qualitatively similar results by using peer's actions in prior one year, and average change in the prior three years to compute the baseline effect.

[8] This approach to testing the effects of peer firms' attributes in making their behaviors more influential on others has many precedents in the inter-organizational diffusion literature (e.g., Davis and Greve, 1997; Briscoe and Safford, 2008). For instance, Briscoe and Safford (2008) tested the effects of activist-resistant identities on amplifying the influence (i.e., *infectiousness* or *contagiousness*) of certain peer firms' adoption of same-sex partner benefits on focal firm's likelihood of adoption by first interacting the prior adoption instances by the attributes of those prior adopters (i.e. activist resistant identities) and then aggregating those weighted scores for all the peer firms. This approach is also analogous to strategy scholars' use of industry averages weighted by peer firms' size, performance and other attributes to account for heterogeneities among peer firms (e.g. Baysinger et al., 1991).

characteristics under study are more or less likely to be emulated by the focal firm above and beyond the decision-makers' baseline biases to adhere to the central tendencies of the industries.

To test whether the positive effect of CEO charisma and the negative effect of CEO narcissism on the inter-organizational imitation process were affected by the uncertainty of the contextual conditions, we examined the interaction effects of ***industry dynamism*** and ***recent strategic actions by peer firms with charismatic/narcissistic CEOs*** as well as the interaction effects of ***prior strategy experience of the focal firm*** and ***recent strategic actions by charismatic/ narcissistic CEOs***.

Because our longitudinal panel comprised of multiple observations per company, we used Generalized Estimation Equations (GEE) regressions to test our hypotheses. GEE models are suitable for analyzing time-series data as they accommodate non-independent observations and inter-temporal correlations (Liang and Zeger, 1986). In the models predicting CSR and international diversification, both of which were normally distributed, we specified a Gaussian distribution, an identity link function, and clustering of errors at the firm-level. Since the variable for product-market diversification had a significant negative skew, we first log transformed it and then used the same model specifications as the other two DVs. Across the three sets of models, we chose exchangeable correlation structure because it best fits the data based on the smallest-qic criteria (which is akin to the AIC criteria but relevant for GEE models with correlated data; Pan, 2001; Cui and Qian, 2007). To enable ease of interpretation, we standardized all the variables involved in the interaction terms.

Finally, our video-metric measurement technique opens the possibly that certain characteristics of firms or CEOs—e.g., large, prominent, high performing firms, or seasoned, powerful, or highly paid CEOs—make it more likely that the CEO appear on videotaped

interviews and thus in our sample. To account for this potential endogeneity, we ran a first stage probit model using data on all of the Fortune 500 firm CEOs to predict whether a given CEO was included in our analyses (e.g., Certo et al., 2016). In this model, we included multiple firm- (size, prestige, return on assets, market-to-book ratio), and CEO- level (tenure, age, duality and total pay) factors that may predict (non) inclusion of CEOs in our sample. The CEO-level variables served as our exclusion restrictions in this modeling—i.e., they were included in the first stage modeling as they may predict inclusion in the sample but were not included in the second stage modeling (Angrist, 2001). We computed a selection hazard coefficient from this first stage model, and added it to the main, second stage models (Leung and Yu, 1996). While these exclusion restrictions were chosen on substantive grounds (Bushway et al., 2007)—these CEO characteristics lend to the likelihood that these CEOs would be interviewed—their strength was also further verified by the low correlations (CEO charisma, r=.00; CEO narcissism, r=.04) between the selection hazard coefficient and our key independent variables (Bushway et al., 2007; Leung & Yu, 1996; Certo et al., 2016).

RESULTS

Table 1 provides the descriptive statistics and correlations for the main variables in our analyses. There are three points with respect to the charisma and narcissism measures worth highlighting. First, charisma and narcissism were positively correlated (r=.43) with each other, consistent with prior research suggesting that while these constructs have some overlap, they are indeed distinct constructs (Galvin, Waldman and Balthazard, 2010). Furthermore, by simultaneously considering these attributes (thereby analytically eliminating their shared variance from regression models), our study rules out the confounding effects of charisma on narcissism and vice versa. This approach improves the alignment of our analyses with prior

theory that posits charisma and narcissism to have contrasting effects on leadership, and, at the same time, puts our ideas to a more stringent test. Second, our measures of CEO charisma and narcissism showed modest to no correlation with other firm-level variables that are previously known as predictors of firms' emulation worthiness. This implies that our video-based measures are not being driven by inferences based upon firm outcomes or other characteristics (e.g., firm performance, firm status, etc.). We further examine this issue in a supplemental analysis. Third, the mean scores of the sample CEOs on these two characteristics were comparable to those found in previous studies that have examined CEO charisma and narcissism with similar measures. This helps to further mitigate the possibility that our sample is biased—the average charisma or narcissism of CEOs included in our sample was comparable to CEOs in the wider population as documented in prior research[9].

------Insert Table 1 here------

Tables 2, 3 and 4 provide regression models that test our hypotheses regarding the effect of peer firm CEO charisma and narcissism on inter-organizational imitation of CSR, international and product-market diversification, respectively. In all three tables, Model 1 represents a baseline model with control variables. Models 2 and 3 examine the effect of peer firm CEO charisma (Hypothesis 1) and peer firm CEO narcissism (Hypothesis 2) on inter-organizational imitation, respectively. Models 4 and 5 then examine the moderating effect of industry dynamism with each strategic action, while Models 6 and 7 examine the moderating

[9] We thank an anonymous reviewer for suggesting this comparison as a way of examining the possibility that our sample was biased toward the inclusion of charismatic or narcissistic CEOs. We found three previous studies that used a 5-point Likert scale to measure the charisma of CEOs (as rated by TMT members using the MLQ) with the following means: 4.38 (Tosi et al., 2004), 4.15 (Waldman et al., 2001), and 4.37 (Waldman et al., 2004). The mean charisma score of our sample was slightly lower: it was 5.01, using a 7-point Likert scale, which converts to a mean of 3.7 on a 5-point Likert scale. The mean narcissism score of our sample (4.92; 7-point Likert scale) is similar to the mean score (4.41) found by Petrenko et al. (2014)—who also validated their video measure against Chatterjee and Hambrick's (2007) widely-used archival measure of narcissism (see also Zhu & Chen, 2014).

effect of prior focal firm experience. Model 8 presents the full model including all effects entered simultaneously.

------Insert Tables 2, 3 & 4 here------

Model 2 in Tables 2, 3 and 4 show that, *ceteris paribus*, the charisma of peer firms' CEOs has a strong influence on the extent to which the peer firms' CSR, international diversification, and product-market diversification actions, respectively, serve as a compelling exemplar for other firms in the industry. The coefficient of the recent actions by charismatic CEOs is positive and significant in all three models (b=.180, p<.01, Model 2, Table 2; b=.045, p<.01, Model 2, Table 3; b=.030, p<.01, Model 2, Table 4). These findings provide strong support for Hypothesis 1; they suggest that the actions of peer firms led by charismatic CEOs tend to have a greater effect on focal firm's actions than do the actions of peer firms led by less charismatic CEOs.

Model 3 in Tables 2, 3 and 4 test Hypothesis 2 by examining the effect that peer firm CEO narcissism has on the imitation of the studied strategic actions. In predicting the imitation of CSR actions, the findings show that peer firm CEO narcissism has a negative and significant effect (b=-.177, p<.01; Model 3, Table 2). Similarly, the recent actions by narcissistic CEOs variable in predicting a focal firm's corporate strategy is negative and significant (international diversification, b=-.066, p<.01; Model 3, Table 3; product-market diversification, b=-.019, p<.01; Model 3, Table 4). These findings thus provide strong support for Hypothesis 2.

Models 4 and 5 in tables 2, 3 and 4 represent results for the hypothesized effect of industry dynamism. Here, our hypotheses predicted that the effects of peer CEO charisma and narcissism will be stronger in dynamic industries. Our results suggest that the interactions of recent strategic behaviors by charismatic CEOs and industry dynamism were positive and

significant for all three dependent variables (CSR, b=.038, p<.01; international diversification, b=.006, p<.10; product-market diversification, b=.022, p<.01, respectively; two-tailed tests), showing support for Hypothesis 3a. We plot these significant interactions in Figure 1 to aid interpretation of these findings. The results show, however, that industry uncertainty does not strengthen the negative effect of peer CEO narcissism on imitation as the interaction of industry dynamism with recent strategic behaviors by narcissistic CEOs did not yield any significant findings. Thus, Hypothesis 3b was not supported.

------Insert Figure 1 here------

Models 6 and 7 in tables 2, 3 and 4 show results for the hypothesized effect of prior experience in the given strategic domain. Here, our hypotheses predicted that when firms have with their own prior experience in the given strategic domain, they are less susceptible to the influence of peer firm CEO characteristics in the imitation process. Our results suggest, for both peer firm CEO charisma and CEO narcissism, this dampening effect of prior focal firm experience holds when it comes to diversification strategies but not for CSR activities. The interaction between recent strategic behaviors by charismatic CEOs and prior experience were negative and significant for international diversification (b=-.011, p< .05) and product-market diversification (b=-.043, p<.01) but not for CSR. Similarly, the interaction of recent strategic behaviors by narcissistic CEOs and firm's prior domain experience was positive and significant for the two corporate strategy domains (international diversification, b=.032, p<.01; product-market diversification, b=.017, p<.01) but not for CSR. Thus, these findings provide partial support for Hypotheses 4a and 4b. We graph these findings in Figures 2 & 3, which lend visual support for hypotheses by illustrating that the regression slopes for firms with high prior strategy experience were consistently steeper than for firms with low prior experience.

------Insert Figures 2 & 3 here------

Our findings are also practically important in terms of effect sizes: low (-1 S.D.) versus high (+1 S.D.) values of our key independent variables in our regression models predicted significant differences in the dependent variables of interest. Low (-1. S.D.) versus high (+1. S.D.) values of recent CSR actions by charismatic CEOs variables corresponded to a difference of .52 (.40 for narcissistic CEOs) in the DV, which is equivalent to more than half a standard deviation in the distribution of the dependent variable. Low (-1. S.D.) vs. high (+1. S.D.) values of recent international diversification actions by charismatic CEOs predicted a difference of 3 percent (2 percent for narcissistic CEOs) change in the DV, which, for a company with median sales of all firms in our sample, represents a difference of $300 million ($200 million for narcissistic CEOs) in revenues from international business segments. Similarly, low vs. high values of product-market diversification actions by charismatic CEOs corresponded to a change of 20 percent (13 percent for narcissistic CEOs) in the DV.

Additional analyses and robustness checks

Prior research has suggested that certain characteristics of the firm may potentially affect observers' perceptions of CEO charisma—and in particular, firm performance (Agle et al., 2006). This possibility was especially important to examine given that our theorization is founded on recognition-based leader categorizations rather than on outcome-based inferences, and while our video-based rating method was done to help ensure that we captured perceptions of leader attributes, we were thus particularly interested in verifying that it was perceptions of the leader attributes and not inferences based upon other firm-level variables driving the effect. We therefore examined whether CEO charisma (and in a separate analysis, CEO narcissism) is associated with other firm-level factors that may affect perceptions of charisma by regressing our

measure of CEO charisma (narcissism) on these other factors including firm performance, size, prestige, and CEO pay. None of these firm-level factors were significant predictors of our CEO charisma or CEO narcissism measures (see Appendix A). As a further step, we reran our main analyses using the residual values from these regression models shown in Appendix A in lieu of using CEO charisma and CEO narcissism in calculating our main IVs as these residual values essentially capture peer CEO charisma and narcissism after accounting for these other firm-level variables. Our findings using these residualized versions of peer CEO charisma and narcissism were similar to our main findings.

To further assess the practical implications of our findings, we assessed the relative importance of peer firm CEO charisma and peer firm performance – a key social-structural factor that may also affect imitation patters – for the focal firm's imitation tendencies. To do so, we created an independent variable capturing ***recent strategic actions (CSR/international diversification/product-market diversification, respectively) by high (vs. low) performing firms***. This variable was coded in the same way as our key independent variables, i.e., by interacting peer firms' actions with their market-to-book ratio, and then averaging those interactions for each focal firm-year observations. We then performed regression runs with both ***recent strategic actions by charismatic CEOs*** and ***recent strategic actions by high (vs. low) performing firms*** in the models at the same time, and then compared their relative effects using Wald chi-square coefficient contrast tests. Across the three dependent variables, we found that the peer CEO charisma was a significantly stronger predictor of focal firm's imitation behaviors than was peer firm performance (CSR, chi-square=18.74, $p<.01$; international diversification, chi-square=24.92, $p<.01$; product market-diversification, chi-square=16.01, $p<.01$).

In our analyses, we have focused and found general support for the moderating influence of contextual uncertainty operationalized as industry dynamism, and prior strategic experience. In unreported analyses, we considered another source of uncertainty: heterogeneity (variance) among the peer firms on the strategic practices in question. As is, we computed a coefficient of variation (standard deviation/mean) for each of the three strategic domain among all the firms in the industry for each year and interacted it with our key independent variables. These analyses did not produce any significant results.

Finally, we also considered the possibility of whether the charisma/narcissism of the focal CEO make it more or less likely that peer charismatic/narcissistic CEOs' actions will be imitated (i.e., a homophilous imitation pattern). To examine this issue, we interacted our each of the weighted-average interaction variables (i.e., strategic actions by charismatic/narcissistic CEOs) with the similar attribute of the focal firm's CEO. These analyses did not produce any significant findings, suggesting that the psychological attributes of peer CEOs' tend to drive focal firm's imitation decisions, positively or negatively, regardless of the focal firm CEO's own similar attributes.

Altogether, these supplemental analyses provide strong evidence that our video-based measures are capturing perceptions of the CEO characteristics under study and not outcome-based inferences and provide additional evidence that these CEO characteristics are influencing the imitation process above and beyond other potential influences.

DISCUSSION

Past research on inter-organizational imitation suggests that when uncertainty about an action's risks or benefits exist, organizational decision-makers make sense of such actions by looking to the behaviors of their peers (Cyert and March, 1963; Westphal and Zajac, 1997; Rao

et al., 2001). While the frequency of actions among peers leads to imitation, past research has also shown that organizations are prone to imitate the actions of peer firms with certain attributes that serve as markers of effectiveness—i.e., large size (Haunschild and Miner, 1997), successful outcomes (Dutton and Freedman, 1985), or high status (Still and Strang, 2004). In this study, we advance this stream of research by considering how the characteristics of the decision-makers of peer firms—in particular, the charisma or narcissism of peer firms' CEOs—affect focal firms' imitation. We posit that both peer CEO characteristics are influential on focal firms' imitation because they trigger leader categorizations that lend to observers perceiving these actions as a result of strong leadership and volitional forces. Yet, we also argue that the socio-cognitive influence that these two leadership attributes have on the inter-organizational imitation process will be quite different: charisma is universally recognized as an effective form of leadership, and thus we expected it to have a positive effect on imitation, whereas narcissism embodies leadership characteristics that invoke perceptions of ineffectiveness, and hence we expected it to negatively affect focal firms' imitation. Because uncertainty is at the heart of these effects, we also further examined the potential moderating role of contextual uncertainty. We investigated these relationships among a sample of Fortune 500 firms across two different strategic domains—CSR and corporate strategy.

Our findings are highly supportive. Both peer firm CEO characteristics appear to be influential on focal firms' imitation of peer firms' actions across the studied strategic domains. First, our results show that focal firms' imitation of peer firms' strategic actions was stronger when the peer firms were led by charismatic CEOs. This finding is therefore consistent with our contention that when focal firm decision-makers look to their peers to make sense of strategic actions, this peer CEO characteristic positively influences focal firm's decision to emulate the

strategic actions taken by those peer firms. Second, we found that when peer firms were led by narcissistic CEOs, this weakened the relationship between peer firms' actions and focal firms' subsequent emulation of those actions across all three of the studied strategic actions. This finding supports the notion that narcissistic leader characteristics elicit leader categorizations among observers which cast an ineffective light on such leaders. Thus, when focal firm decision-makers observe strategic actions enacted by a narcissistic peer CEO, this dampens the decision to imitate.

We also examined whether varying levels of uncertainty in the industry (i.e., industry dynamism) and at the firm level (i.e., focal firm prior experience with the practice) affected these relationships. Our findings suggest that industry dynamism enhanced the positive effect of peer CEO charisma on the imitation process across all three strategic actions. This provides support for the notion that the heightened uncertainty in dynamic industries makes the prototypical nature of this particular leader characteristic more influential to focal firms' sense-making processes. It is also consistent with past scholarship that has suggested that this form of leadership is especially influential under uncertain conditions (e.g., Weber, 1947; Trice & Beyer, 1986; see Lord & Emrich, 2001 and Shamir & Howell, 1999 for reviews). We found no evidence, however, to suggest that industry dynamism affects the negative influence that peer CEO narcissism has on inter-firm imitation of the three strategic practices. We interpret these findings as suggesting that the effect of uncertainty on the working of leadership categorization processes depends upon the content of the attributions: evidently, characteristics lending to perceived effectiveness (charisma) become even more desirable and influential as uncertainty increases whereas the influence of attributions of ineffectiveness remains the same. Simply, it appears that heightened uncertainty makes cues of effectiveness more desirable whereas it does

not affect the undesirability of cues of ineffectiveness. Clearly future research on this issue is needed: while much thought has been given to how uncertainty affects the conduciveness of desired leader categorization processes, there has been little previous consideration of how uncertainty affects categorization processes surrounding undesirable leader attributes.

The results were also generally supportive of our prediction that focal firms' prior experiences with the strategic practices lessens the potential influence of the peer CEO characteristics on the imitation process. When focal firms had prior experience in international or product market diversification, this lessened the effect that either peer CEO charisma or peer CEO narcissism had on focal firms' imitation of each of these practices, respectively. Focal firms' prior experiences in CSR practices, however, did not reduce the influence that either peer CEO charisma or peer CEO narcissism had on focal firms' imitation of this strategic practice. One possible explanation for this finding may be that the means-ends linkages for CSR practices are much less clear than for firms' corporate strategy behaviors and thus prior CSR experiences do not alleviate the uncertainty about CSR actions and thus the need remains for firms to look to their peers as a matter of sensemaking about such practices.

As such, our findings have several implications for future research on inter-organizational imitation. First, in showing that the characteristics of peer CEOs affect the contagiousness of their firm's actions, we provide a critical shift away from the past focus in this literature on firm-level attributes toward those individuals responsible for the firm behaviors: the attributes of the leaders making the decisions about those strategic behaviors—i.e., CEOs—evidently matter to observers in the inter-organizational imitation process. Indeed, although general patterns of inter-organizational influences have been well-documented (Rogers, 2003), there has been very little attention to the possibility that individuals vary in their propensity to facilitate inter-

organizational imitation (Shropshire, 2010). The idea that individual differences of leaders play a role in imitation has only recently been considered (Zhu and Chen, 2015) and our study importantly extends this line of inquiry to examine how the characteristics of *peer firm leaders* affect observers' perceptions of the strategic behaviors in question. In so doing, our study thus advances theory and research on attribute-based or selective imitation processes which has shown that focal decision makers tend to imitate behaviors when they are executed by peer firms with attributes that enhance the perceived effectiveness of the strategic behaviors in question (e.g., Greve, 1998; Haunschild and Miner, 1997; Strang and Still, 2004; Rhee et al., 2006; Williamson and Cable, 2003). Clearly, future research which continues to delve into how the attributes of decision-makers—both those of peer and focal firms—affects the imitation process is highly warranted.

Second, our arguments and findings suggest that attributes which invoke perceptions of *ineffectiveness* can *dampen* focal firms' imitation of peer firms' actions. Focusing on narcissism as a prototype of ineffective leadership, our results provide support for the idea that actions of peer firms led by narcissistic CEOs are discounted by observing firms. Furthermore, our findings suggest that such discounting invoked by ineffectiveness cues is not sensitive to the degree of environmental uncertainty, as are effectiveness cues. Given that inter-organizational imitation research to date has essentially focused on attributes that enhance imitation—i.e., there has been an implicit focus on effectiveness cues rather than ineffectiveness cues— our findings that peer CEO narcissism dampens imitation open up a whole new avenue for future research. Research that further investigates characteristics of peer firms and their CEOs that may diminish the contagiousness of peer firms' actions is therefore highly warranted.

Third, our study builds on the notion that inter-organizational imitation is heavily an automatic socio-cognitive process (e.g., Strang and Still, 2004) and to the extent that the peer firm CEO characteristics we studied here triggered focal firms' leader categorization processes that elicit agentic attributions about these practices, our findings further previous research which has suggested the importance of the imitation process that the observed behaviors be perceived as the result of volitional decision making (Briscoe et al., 2015). As Strang and Meyer (1993) noted, when practices are perceived to be agentic in nature, this increases the belief in their rational basis and thus imitation. Our arguments and findings point to the need for future research continue to examine how the agency surrounding practices affects the imitation process. Furthermore, in suggesting that agentic attributions affect the perceptions that peer firms have of one another, our study adds to research that has suggested that agentic attributional processes operate among the business press (e.g., Chen & Meindl, 1991; Meindl et al., 1985), securities analysts (Fanelli et al., 2009), and investors (Parachuri & Misangyi, 2015).

Fourth, the socio-cognitive lens advanced here raises a critical—and dark—insight about how leadership may affect the imitation process. While leadership is typically portrayed in a beneficial light, our study suggests that the very same organizational action can be seen as either effective or ineffective depending upon the type of leadership that enacts it. As our study shows, when leaders with negatively perceived characteristics institute a practice, this can be influential in stopping the spread of a practice that may otherwise diffuse widely. It also follows that it is possible that when leaders with positively perceived characteristics enact a detrimental practice—be it an ineffective or an unethical one—peers may be likely to follow suit. Indeed, firms are known to adopt practices that can hurt shareholders' interests, and inspire outrage

among stakeholders (Briscoe and Gupta, 2016). Future research that examines how leaders influence the imitation of detrimental practices may be highly fruitful.

Our study, in advancing a socio-cognitive understanding of leadership, also has implications for future research on CEO charisma, CEO narcissism, and leadership more generally. With respect to CEO charisma, our findings that charismatic CEOs have an effect—a non-deliberate socio-cognitive one—on the behaviors of their industry peers extends previous research which has begun to consider how CEO charisma has an influence on firms' external constituencies (Chen and Meindl, 1991; Fanelli & Misangyi, 2006; Fanelli et al., 2009; Flynn & Staw, 2004; Khurana, 2002). Our study also builds on the cumulative findings that narcissistic CEOs tend to make decisions that can negatively impact organizations (Chatterjee and Hambrick, 2007; Zhu and Chen, 2015; Petrenko et al., 2015). But, our findings shift attention to how CEO narcissism affects the behaviors of those who observe the narcissist rather than how it affects the narcissist and his/her organization. Our findings clearly suggest that observers comprehend and react to CEO narcissism, and alter their behavior in light of that understanding.

Finally, although past research has often taken an inference-based socio-cognitive perspective to understanding organizational leadership—most prominently research on the "romance of leadership" (Meindl et al., 1985) or on "CEO celebrity" (e.g., Hayward et al., 2004)—the perspective put forward by our study is that leadership operates through categorizations made by followers (or potential followers) when they observe particular leader characteristics and behaviors. In this recognition-based view of leader categorizations, "the locus of leadership […] involves behaviors, traits, characteristics, and outcomes produced by leaders as these elements are interpreted by followers" (Lord and Maher, 1991: 11), and our findings lend support to the suggestion that leader characteristics and behaviors constitute a basis for

distal leader effects (cf., Fanelli and Misangyi, 2006; Fanelli et al., 2009; Shamir, 1995). Indeed, this has a profound implication for how we conceive leadership and followership more generally: it suggests that leadership can have far reaching effects on external observers and other leaders. What's more, this influence is largely non-deliberate and unintentional; it occurs whether or not the leaders with particular characteristics—and as our study makes clear these attributes include charisma or narcissism—seek to influence these more distant observers. Instead, this influence occurs because their leadership characteristics are believed to be beneficial or detrimental by those observing the leader. Simply put, our study implies that the reach of certain leaders extends well beyond their direct "followers".

Our study, and its contributions, must be considered in light of its limitations. Foremost is that it is not possible to directly examine the theorized underlying mechanisms. Our theorization suggests that the charisma and narcissism of peer firms' CEOs affect the imitation process because they trigger observers' "implicit leadership theories" which lend both to attributions about the volitional nature of the actions in question as well as to their perceived effectiveness or ineffectiveness. Given this grounding in the strategic perspective of legitimacy, which gives primacy to notions of effectiveness, it is worth noting that the influence of the studied peer CEO characteristics on inter-organizational imitation may be due to alternative mechanisms.

This seems especially possible for CEO charisma: one potential alternative explanation for the effect of peer CEO charisma is that it may serve as part of a process of affirmation rather than imitation[10]. That is, because we study ongoing strategic behaviors, it may be that when focal firms are already engaging in a strategic action, viewing charismatic CEO peers doing the same strategic behavior helps to validate or affirm their own strategic decisions, thereby leading

[10] We thank one of our anonymous reviewers for suggesting the possibility that this alternative explanation may be at work here.

to an escalation of the strategic action. Our findings that focal firms' prior experiences with the strategic action in question dampens the effect of CEO charisma on the imitation process helps to rule out this alternative, however: we would not expect to find this dampening effect of peer CEO charisma on focal firms' practices under such an affirmation process.

A second alternative is that, rather than effectiveness, the found effects may be rooted more in institutional notions of legitimacy that emphasize the appropriateness or constitutive beliefs surrounding the practices. Again, such institutional accounts may be particularly pertinent to CEO charisma, given that the sociological origins of charisma are directly derived from the notions of "authority", "legitimacy", and "ultimate values" (see Greenfeld, 1985: 119; Weber, 1947). While our research design cannot rule out such an alternative explanation for the effects of charisma (and narcissism), the main mechanism underlying our theorization for their influence—leader categorizations and implicit leadership theories—would nevertheless still apply to this alternative view of the imitation process.

A third possibility is that charismatic peer CEOs may be viewed as more likeable, and may thus have more informal social ties to focal firms' decision-makers—and such ties may then strengthen the inter-organizational imitation. It is similarly plausible that narcissistic peer CEOs are viewed as less likeable—and thus have fewer informal ties to focal firms' decision makers which would thereby weaken imitation. While our analytical technique did not afford us the ability to observe these ties, we did incorporate the impact of peer CEO likeability, which did not alter our findings for either peer CEO charisma or narcissism. Moreover, in bivariate correlations, CEO likeability was positively associated with both charisma and narcissism, further assuaging the concern that the negative effect of narcissism is driven by the lack of likeability of those CEOs.

In conclusion, we examined the question of how characteristics of peer firms' CEOs can encourage or dissuade the imitation of their strategic behavior by the focal firm. We showed that CEO charisma and narcissism – which are indicative of positive versus negative forms of leadership – served as social cues for observing firms to form impressions about whether peer firm behaviors represent worthy exemplars of decision-making. Our study advances research on inter-organizational imitation by spotlighting the importance of peer firms' CEOs, research in strategic leadership by demonstrating the spill-over effects of CEO attributes in multiple strategic domains, and advances a socio-cognitive view of leadership that has far-reaching implications for any research domain in which leadership and followership are of interest.

ACKNOWLEDGEMENTS

We thank Bruce Avolio, Forrest Briscoe, Don Hambrick, Razvan Lungeanu, and Srikanth Parachuri for their comments and suggestions on earlier versions of this manuscript. This work also benefited greatly from the suggestions we received at a Smeal College of Business Management & Organization Department ORG seminar. This research was funded in part by the Smeal College of Business.

REFERENCES

Abrahamson E, Fombrun CJ. 1994. Macrocultures: Determinants and Consequences. Academy of Management Journal 19 (4): 728-755.

Abrahamson E., Hambrick DC. 1997. Attentional homogeneity in industries: the effect of discretion. Journal of Organizational Behavior 18: 513-532.

Agle BR, Mitchell RK, Sonnenfeld JA. 1999. Who matters to CEOs? An investigation of stakeholder attributes and salience, corporate performance, and CEO values. *Academy of Management Journal*, **42**: 507-525.

Agle BR, Nagarajan NJ, Sonnenfeld J A, Srinivasan D. 2006. Does CEO charisma matter? An empirical analysis of the relationships among organizational performance, environmental uncertainty, and top management team perceptions of CEO charisma. *Academy of Management Journal*, **49**: 161-174.

Ambady N, and Rosenthal R. 1992. Thin slices of expressive behavior as predictors of interpersonal consequences: A meta-analysis. *Psychological Bulletin*, **111**: 256-274.

Angrist JD. 2001. Estimation of limited dependent variable models with dummy endogenous regressors: simple strategies for empirical practice. *Journal of Business & Economic Statistics*. **19**: 2-8.

Back MD, Schmukle SC, and Egloff B. 2010. Why are narcissists so charming at first sight? Decoding the narcissism–popularity link at zero acquaintance. *Journal of Personality and Social Psychology*, **98**: 132-145.

Barnett ML, Pollock TG (eds.) 2012. The Oxford handbook of corporate reputation. Oxford University Press, Oxford.

Baron DP. 2003. Business and its Environment. Upper Saddle River, NJ: Prentice Hall.

Baum JA, Li SX, Usher JM. 2000. Making the next move: How experiential and vicarious learning shape the locations of chains' acquisitions. *Administrative Science Quarterly*, **45**: 766-801.

Baysinger B, Hoskisson RE. 1989. Diversification strategy and R&D intensity in multiproduct firms. *Academy of Management Journal*. **32**: 310-32.

Baysinger BD, Kosnik RD, and Turk TA. 1991. Effects of board and ownership structure on corporate R&D strategy. *Academy of Management Journal*, **34**: 205-214.

Benjamin DJ, and Shapiro JM. 2009. Thin-slice forecasts of gubernatorial elections. *The Review of Economics and Statistics*, **91**: 523-536.

Bikhchandani S, Hirshleifer D, Welch I. 1992. A theory of fads, fashion, custom, and cultural change as informational cascades. *Journal of Political Economy*, **100**: 992-1026.

Briscoe F, Chin MK, and Hambrick DC. 2014. CEO ideology as an element of the corporate opportunity structure for social activists. *Academy of Management Journal*, **57**: 1786-1809.

Briscoe F, Gupta A, and Anner MS. 2015. Social Activism and Practice Diffusion How Activist Tactics Affect Non-targeted Organizations. *Administrative Science Quarterly*, **60**: 300-332.

Briscoe F, and Gupta A. 2016. Social Activism in and Around Organizations. *The Academy of Management Annals*, 1-57.

Briscoe F, and Safford S. 2008. The Nixon-in-China effect: Activism, imitation, and the institutionalization of contentious practices. *Administrative Science Quarterly*, **53**: 460-491.

Bushway S, Johnson BD, Slocum LA. 2007. Is the magic still there? The use of the Heckman two-step correction for selection bias in criminology. *Journal of Quantitative Criminology*. **23**: 151-78.

Campbell WK, Reeder GD, Sedikides C, and Elliot AJ. 2000. Narcissism and Comparative Self-Enhancement Strategies. *Journal of Research in Personality*, **34**: 329–347.
Certo ST, Busenbark JR, Woo HS, Semadeni M. 2016. Sample selection bias and Heckman models in strategic management research. *Strategic Management Journal*.
Chatterjee A, Hambrick DC. 2007. It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative Science Quarterly*, **52**: 351-386.
Chatterjee A, Hambrick DC. 2011. Executive Personality, Capability Cues, and Risk Taking How Narcissistic CEOs React to Their Successes and Stumbles." *Administrative Science Quarterly*, **56**: 202-237.
Chatterji A, Toffel MW. 2016. Do CEO Activists Make a Difference? Evidence from a Field Experiment. Harvard Business School Technology & Operations Mgt. Unit Working Paper
Chatterji AK, Levine DI, Toffel MW. 2009. How well do social ratings actually measure corporate social responsibility? *Journal of Economics & Management Strategy*, **18**: 125-169.
Chen CC, Meindl JR. 1991. The construction of leadership images in the popular press: The case of Donald Burr and People Express. *Administrative Science Quarterly*, **36**: 521-551.
Chin MK, Hambrick DC, Treviño LK. 2013. Political Ideologies of CEOs The Influence of Executives' Values on Corporate Social Responsibility. *Administrative Science Quarterly*, **58**: 197-232.
Conger JA, Kanungo RN. 1998. Charismatic leadership in organizations. Sage Publications.
Connelly BL, Johnson JL, Tihanyi L, Ellstrand AE. 2011. More than adopters: Competing influences in the interlocking directorate. *Organization Science*, **22**: 688-703.
Connelly BS, Ones DS. 2010. Another perspective on personality: meta-analytic integration of observers' accuracy and predictive validity. *Psychological bulletin*, **136**: 1092-1122.
Cui J, Qian G. 2007. Selection of working correlation structure and best model in GEE analyses of longitudinal data. *Communications in Statistics—Simulation and Computation*®. **36**: 987-96.
Cyert RM, March JG. 1963. A behavioral theory of the firm. Englewood Cliffs, NJ.
Davis GF. 1991. Agents without principles? The spread of the poison pill through the intercorporate network. *Administrative Science Quarterly*, **36**: 583-613.
Davis GF, Greve HR. 1997. Corporate elite networks and governance changes in the 1980s. *American Journal of Sociology*, **103**: 1-37.
Deephouse DL. 2000. Media reputation as a strategic resource: An integration of mass communication and resource-based theories. *Journal of Management*, **26**: 1091-1112.
Deephouse DL, Suchman M. 2008. Legitimacy in organizational institutionalism. *The Sage handbook of organizational institutionalism.* 49-77.
Den Hartog DN, House RJ, Hanges PJ, Ruiz-Quintanilla SA, Dorfman PW 1999. Culture specific and cross-culturally generalizable implicit leadership theories: Are attributes of charismatic/transformational leadership universally endorsed? *The Leadership Quarterly*, **10**: 219-256.
Dess GG, Beard DW. 1984. Dimensions of organizational task environments. *Administrative Science Quarterly*, **29**: 52-73.
Di Giuli A, Kostovetsky L. 2014. Are red or blue companies more likely to go green? Politics and corporate social responsibility. *Journal of Financial Economics*, **111**: 158-180.
DiMaggio P, Powell WW. 1983. The iron cage revisited: Collective rationality and institutional isomorphism in organizational fields. *American Sociological Review*, **48**: 147-160.
Domhoff G. 1967. Who Rules America. Englewood Cliffs, New Jersey: Prentice-Hall.

Dutton JM, Freedman RD. 1985. External environment and internal strategies: calculating, experimenting, and imitating in organizations. *Advances in Strategic Management*, **3**: 39-67.
Emmons RA. 1989. Exploring the relations between motives and traits: The case of narcissism. In Personality Psychology (pp. 32-44). Springer US.
Epitropaki O, Sy T, Martin R, Tram-Quon S, Topakas A. 2013. Implicit leadership and followership theories "in the wild": Taking stock of information-processing approaches to leadership and followership in organizational settings. *The Leadership Quarterly*, **24**: 858-881.
Fanelli A, Misangyi VF. 2006. Bringing out charisma: CEO charisma and external stakeholders. *Academy of Management Review*, **31**: 1049-1061.
Fanelli A, Misangyi VF, Tosi HL. 2009. In charisma we trust: The effects of CEO charismatic visions on securities analysts. *Organization Science*, **20**: 1011-1033.
Fligstein N. 1985. The spread of the multidivisional form among large firms, 1919-1979. *Advances in Strategic Management*, **17**: 55-78.
Flynn FJ, Staw BM. 2004. Lend me your wallets: The effect of charismatic leadership on external support for an organization. *Strategic Management Journal*, **25**: 309-330.
Galvin BM, Waldman DA, Balthazard P. 2010. Visionary communication qualities as mediators of the relationship between narcissism and attributions of leader charisma. *Personnel Psychology*, **63**: 509-537.
Geletkanycz MA, Hambrick DC. 1997. The external ties of top executives: Implications for strategic choice and performance. *Administrative Science Quarterly*, **42**: 654-681.
Golmaryami FN, Barry CT. 2009. The associations of self-reported and peer-reported relational aggression with narcissism and self-esteem among adolescents in a residential setting. *Journal of Clinical Child & Adolescent Psychology*, **39**: 128-133.
Greenfeld L. 1985. Reflections on two charismas. *British Journal of Sociology*. 1: 117-32.
Greve HR. 1995. Jumping ship: The diffusion of strategy abandonment. *Administrative Science Quarterly*, **40**: 444-473.
Greve HR. 1998. Managerial cognition and the mimetic adoption of market positions: What you see is what you do. *Strategic Management Journal*, **19**: 967-988.
Greve HR. 2005. Interorganizational learning and heterogeneous social structure. *Organization Studies*, **26**: 1025-1047.
Gupta A, Briscoe F, Hambrick DC. 2017. Red, Blue and Purple firms: Organizational Political Ideology and Corporate Social Responsibility. *Strategic Management Journal*.
Hambrick DC, Abrahamson E. 1995. Assessing managerial discretion across industries: A multimethod approach. *Academy of Management Journal*. **38**: 1427-41.
Hambrick DC, Finkelstein S. 1987. Managerial discretion: A bridge between polar views of organizational outcomes. *Research in Organizational Behavior*.
Hambrick DC, Mason PA. 1984. Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, **9**: 193-206.
Hamilton DL, Sherman SJ. 1996. Perceiving persons and groups. *Psychological Review*. **103**: 336.
Hannan MT, Carroll G. 1992. Dynamics of organizational populations: Density, legitimation, and competition. Oxford University Press on Demand.
Haunschild P R. 1993. Interorganizational imitation: The impact of interlocks on corporate acquisition activity. *Administrative Science Quarterly*, **38**: 564–592
Haunschild PR. 1994. How much is that company worth?: Interorganizational relationships, uncertainty, and acquisition premiums. *Administrative Science Quarterly*, **39**: 391-411.

Haunschild PR, Miner AS. 1997. Modes of interorganizational imitation: The effects of outcome salience and uncertainty. *Administrative Science Quarterly*, **42**: 472-500.
Hayward ML, Rindova VP, Pollock TG. 2004. Believing one's own press: The causes and consequences of CEO celebrity. *Strategic Management Journal*, **25**: 637-653.
Hiatt SR, Grandy JB, and Lee BH. 2015. Organizational Responses to Public and Private Politics: An Analysis of Climate Change Activists and US Oil and Gas Firms. *Organization Science*, **26**: 1769-1786.
Hill CW, Hitt MA, Hoskisson RE. 1992. Cooperative versus competitive structures in related and unrelated diversified firms. *Organization Science*. **3**: 501-21.
Hill CW, Hoskisson RE. 1987. Strategy and structure in the multiproduct firm. *Academy of Management Review*. **12**: 331-41.
Hillman AJ, Keim GD. 2001. Shareholder value, stakeholder management, and social issues: what's the bottom line? *Strategic Management Journal*, **22**: 125-139.
Hitt MA, Hoskisson RE, Kim H. 1997. International diversification: Effects on innovation and firm performance in product-diversified firms. *Academy of Management Journal*, **40**: 767-798.
Hitt MA, Tihanyi L, Miller T, Connelly B. 2006. International diversification: Antecedents, outcomes, and moderators. *Journal of Management*, **32**: 831-867.
Hogg MA, Terry DI. 2000. Social identity and self-categorization processes in organizational contexts. *Academy of Management Review*. **25**: 121-40.
House RJ, Howell JM. 1992. Personality and charismatic leadership. *The Leadership Quarterly*, **3**: 81-108.
Hoskisson RE, Hitt MA, Johnson RA, Moesel DD. 1993. Construct validity of an objective (entropy) categorical measure of diversification strategy. *Strategic Management Journal*. **14**: 215-35.
Jacquemin AP, Berry CH. 1979. Entropy measure of diversification and corporate growth. *The Journal of Industrial Economics*. **1**: 359-69.
Jellison JM, Green J. 1981. A self-presentation approach to the fundamental attribution error: The norm of internality. *Journal of Personality and Social Psychology*, **40**: 643.
Keats BW, Hitt MA. 1988. A causal model of linkages among environmental dimensions, macro organizational characteristics, and performance. *Academy of Management Journal*, **31**: 570-598.
Khurana R. 2002. Searching for a Corporate Savior: The Irrational Quest for Charismatic CEOs. Princeton University Press, Princeton, NJ.
Lambert C. 2002. The Cult of the Charismatic CEO. *Harvard Magazine*
Leckelt M, Küfner AC, Nestler S, Back MD. 2015. Behavioral processes underlying the decline of narcissists' popularity over time. *Journal of Personality and Social Psychology*, **109**: 856-871.
Leung SF, Yu S. (1996). On the choice between sample selection and two-part models. *Journal of Econometrics*, **72**: 197-229.
Liang KY, Zeger SL. 1986. Longitudinal data analysis using generalized linear models. *Biometrika*, **73**: 13-22.
Lieberman MB, Asaba S. 2006. Why do firms imitate each other? *Academy of Management Review*, **31**: 366-385.
Lord RG, Emrich CG. 2001. Thinking outside the box by looking inside the box: Extending the cognitive revolution in leadership research. *The Leadership Quarterly*, **11**: 551-579.
Lord RG, Maher KJ. 1991. Leadership and Information Processing: Linking Perceptions and Performance. Cambridge, MA: Unwin Hyman, Inc.

Luckerson V. 2014. 4 Ways Tim Cook Has Changed Apple as CEO. *Time Magazine*. [http://time.com/3162246/apple-tim-cook-ceo-3-years/]

Groth A. 2011. 19 Amazing Ways CEO Howard Schultz Saved Starbucks. *Business Insider*. (http://www.businessinsider.com/howard-schultz-turned-starbucks-around-2011-6).

Malkin ML, Zeigler-Hill V, Barry CT, Southard AC. 2013. The view from the looking glass: How are narcissistic individuals perceived by others? *Journal of Personality*, **81**: 1-15.

March JG, Simon HA. 1958. Organizations. Oxford, England: Wiley Organizations.

Martin SR, Côté S, Woodruff T. 2016. Echoes of our upbringing: How growing up wealthy or poor relates to narcissism, leader behavior, and leader effectiveness. *Academy of Management Journal*, In press

McWilliams A, Siegel D. 2000. Corporate social responsibility and financial performance. *Strategic Management Journal*, **21**: 603-609.

Meindl JR, Ehrlich SB, Dukerich JM. 1985. The romance of leadership." *Administrative Science Quarterly*, **30**: 78-102.

Meyer JW, Rowan B. 1977. Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, **83**: 340-363.

Miller JD, Campbell WK, Pilkonis PA. 2007. Narcissistic personality disorder: Relations with distress and functional impairment. *Comprehensive Psychiatry*, **48**: 170–177.

Mintzberg H. 1973. The nature of managerial work. New York: Harper and Row.

Mischel W. 1977. On the future of personality measurement. *American Psychologist*. 32: 246.

Morf CC, Rhodewalt F. 2001. Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Inquiry*, **12**: 177-196.

Nevicka B, De Hoogh AH,Van Vianen AE, Beersma B, McIlwain D. 2011. All I need is a stage to shine: Narcissists' leader emergence and performance. *The Leadership Quarterly*, **22**: 910-925.

Offermann LR, Kennedy JK, Wirtz PW. 1994. Implicit leadership theories: Content, structure, and generalizability. *The Leadership Quarterly*, **5**: 43-58.

Oh I, Wang G, Mount MK. 2011. Validity of observer ratings of the five-factor model of personality traits: a meta-analysis. *Journal of Applied Psychology*. **96**: 762–773.

Orlitzky M, Schmidt FL, Rynes SL. 2003. Corporate social and financial performance: A meta-analysis. *Organization Studies*, **24**: 403-441.

Palepu K. 1985. Diversification strategy, profit performance and the entropy measure. *Strategic Management Journal*. **6**: 239-55.

Palich LE, Cardinal LB, Miller CC. 2000. Curvilinearity in the diversification–performance linkage: an examination of over three decades of research. *Strategic Management Journal*. **21**: 155-74.

Palmer DA, Jennings PD, Zhou X. 1993. Late adoption of the multidivisional form by large US corporations: Institutional, political, and economic accounts." *Administrative Science Quarterly*, **38**: 100-131.

Pan W. 2001. Akaike's information criterion in generalized estimating equations. *Biometrics*. **57**: 120-125

Park SW, Colvin CR. 2015. Narcissism and Other-Derogation in the Absence of Ego Threat. *Journal of Personality*, **83**: 334-345.

Paruchuri S, Misangyi VF. 2015. Investor perceptions of financial misconduct: The heterogeneous contamination of bystander firms. *Academy of Management Journal*, **58**: 169-194.

Petrenko OV, Aime F, Ridge J, Hill A. 2015. Corporate social responsibility or CEO narcissism? CSR motivations and organizational performance. *Strategic Management Journal*, In press.
Rao H, Greve HR, Davis GF. 2001. Fool's gold: Social proof in the initiation and abandonment of coverage by Wall Street analysts. *Administrative Science Quarterly*, **46**: 502-526.
Rao H, Monin P, Durand R. 2003. Institutional change in Toque Ville: Nouvelle cuisine as an identity movement in French gastronomy. *American Journal of Sociology*, **108**: 795-843.
Raskin R, Novacek J, Hogan R. 1991. Narcissistic self-esteem management. *Journal of Personality and Social Psychology*, **60**: 911-918.
Raskin R, and Terry H. 1988. A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, **54**: 890-902.
Rhee M, Kim YC, Han J. 2006. Confidence in imitation: Niche-width strategy in the UK automobile industry. *Management Science*, **52**: 501-513.
Rindova VP, Fombrun CJ. 1999. Constructing competitive advantage: the role of firm-constituent interactions. Strategic Management Journal 20: 691 – 710.
Rogers EM. 2003. Diffusion of innovations. Simon and Schuster.
Russo MV, Fouts PA. 1997. A resource-based perspective on corporate environmental performance and profitability. *Academy of Management Journal*, **40**: 534-559.
Schnurbein GV. 2009. Patterns of governance structures in trade associations and unions. *Nonprofit Management and Leadership*, **20**: 97-115
Shamir B. 1995. Social distance and charisma: theoretical notes and an exploratory study. *Leadership Quarterly* **6**: 19-47.
Shamir B, Howell JM. 1999. Organizational and contextual influences on the emergence and effectiveness of charismatic leadership. *Leadership Quarterly*, **10**: 257-283.
Shamir B, House RJ, Arthur MB. 1993. The motivational effects of charismatic leadership: A self-concept based theory. *Organization Science*, **4**: 577-594.
Shropshire C. 2010. The role of the interlocking director and board receptivity in the diffusion of practices. *Academy of Management Review*, **35**: 246-264.
Strang D. 2010. Learning by example: Imitation and innovation at a global bank. Princeton University Press.
Strang D, Meyer JW. 1993. Institutional conditions for diffusion. *Theory and Society*, **22**: 487-511.
Strang D, Soule SA. 1998. Diffusion in organizations and social movements: From hybrid corn to poison pills. *Annual Review of Sociology*, **24**: 265-290.
Strang D, Still MC. 2004. In search of the elite: revising a model of adaptive emulation with evidence from benchmarking team. *Industrial and Corporate Change*, **13**: 309-333.
Suchman MC. 1995. Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*. **20**: 571-610.
Tallman S, Li J. 1996. Effects of international diversity and product diversity on the performance of multinational firms. *Academy of Management Journal*, **39**: 179-196.
Tihanyi L, Griffith DA, Russell CJ. 2005. The effect of cultural distance on entry mode choice, international diversification, and MNE performance: A meta-analysis. *Journal of International Business Studies*, **36**: 270-283.
Tosi HL, Misangyi VF, Fanelli A, Waldman DA, Yammarino FJ. 2004. CEO charisma, compensation, and firm performance. *The Leadership Quarterly*, **15**: 405-420.

Trice HM, Beyer JM. 1986. Charisma and its routinization in two social movement organizations. In LL Cummings and BM Staw (Eds.), Research in Organization Behavior (pp. 113-164). Greenwich, CT: JAI Press.

Waldman DA, Yammarino FJ. 1999. CEO charismatic leadership: Levels-of-management and levels-of-analysis effects. *Academy of Management Review*. **24**: 266-85.

Wallace HM, Baumeister RF. 2002. The performance of narcissists rises and falls with perceived opportunity for glory. *Journal of Personality and Social Psychology*, **82**: 819-834.

Webb E, Weick KE. 1983. Unobtrusive measures in organizational theory: A reminder." In Van Maanen J. (ed.), *Qualitative Methodology*: 209–224. Beverly Hills, CA: Sage.

Weber M. 1947. The Theory of Social and Economic Organization, edited by A. H. Henderson and T. Parsons. Glencoe, IL: Free Press.

Westphal JD, Boivie S, Chng DHM. 2006. The strategic impetus for social network ties: Reconstituting broken CEO friendship ties. Strategic Management Journal, **27**: 425-445.

Westphal JD, Deephouse DL. 2011. Avoiding bad press: Interpersonal influence in relations between CEOs and journalists and the consequences for press reporting about firms and their leadership. *Organization Science*, **22**: 1061-1086.

Westphal JD, Gulati R, Shortell SM. 1997. Customization or conformity? An institutional and network perspective on the content and consequences of TQM adoption. *Administrative Science Quarterly*, **42**: 366-394.

Westphal JD, Seidel MDL, Stewart KJ. 2001. Second-order imitation: Uncovering latent effects of board network ties. Administrative Science Quarterly, **46**(4): 717-747.

Westphal JD, Zajac EJ. 1997. Defections from the inner circle: Social exchange, reciprocity, and the diffusion of board independence in US corporations. Administrative Science Quarterly, **42**: 161-183.

Williamson IO, Cable DM. 2003. Organizational hiring patterns, interfirm network ties, and interorganizational imitation. *Academy of Management Journal*, **46**: 349-358.

Wowak AJ, Mannor MJ, Arrfelt M, McNamara G. 2015. Earthquake or glacier? How CEO Charisma Manifests In Firm Strategy Over Time. *Strategic Management Journal.* In Press.

Zhu DH, Chen G. 2015. CEO Narcissism and the Impact of Prior Board Experience on Corporate Strategy. *Administrative Science Quarterly*, **60**: 31-65.

Table 1. Descriptive Statistics and Correlations

		Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)
(1)	CSR	.31	1.01																												
(2)	Prior year CSR	.27	.97	.89																											
(3)	International diversification	.41	.25	.11	.11																										
(4)	Prior year international diversification	.39	.24	.09	.10	.88																									
(5)	Product-market diversification	.54	.48	.02	.01	.00	-.02																								
(6)	Prior year product-market diversification	.55	.48	.04	.00	.01	.01	.93																							
(7)	Firm size (logged sales)	9.52	1.13	.01	.01	.00	.02	.32	.32																						
(8)	Firm prestige	.19	.39	.38	.37	.17	.18	.13	.12	.24																					
(9)	Return on assets	5.95	6.89	.08	.08	-.10	-.09	-.03	-.05	.16	.17																				
(10)	Market-to-book ratio	3.76	2.70	.20	.19	.02	.02	-.15	-.14	-.02	.16	.31																			
(11)	Debt-to-equity ratio	1.48	1.70	-.11	-.07	-.05	-.07	.01	.01	.24	-.04	-.15	.11																		
(12)	CEO likeability	5.16	.83	.16	.16	.06	.04	-.08	-.09	-.19	.01	.12	.22	-.01																	
(13)	CEO charisma	4.98	.72	.36	.37	.09	.07	.00	-.02	-.20	.10	.10	.15	-.08	.28																
(14)	CEO narcissism	4.86	.68	.19	.20	.10	.09	-.03	-.02	-.09	.09	.02	.03	-.08	.24	.43															
(15)	Industry dynamism	.01	.01	-.12	-.12	-.01	.01	-.06	-.04	.10	.00	-.14	-.10	.12	-.09	-.05	-.03														
(16)	Industry munificence	.04	.04	-.20	-.17	-.04	-.01	-.05	-.05	.08	-.15	.22	-.07	-.10	-.12	-.09	-.01	-.09													
(17)	Number of peer firms	9.93	3.95	-.19	-.16	.17	.14	.33	.31	.06	-.01	-.02	-.14	.07	-.14	-.05	-.02	-.20	.17												
(18)	Peer firms' CSR profile	.17	.51	.39	.36	.18	.14	-.07	-.06	-.14	.22	-.03	.22	-.12	.13	.19	.17	-.16	-.26	-.27											
(19)	Peer firms' international diversification	.39	.12	.22	.23	.15	.12	.01	.02	-.09	.28	-.04	.05	-.11	.01	.11	.23	.00	.04	.26	.33										
(20)	Peer firms' product-market diversification	.48	.06	-.04	-.02	-.05	-.05	.27	.28	-.28	-.14	.02	.15	-.01	.05	-.02	-.01	.05	-.11	-.27	.06	-.10									
(21)	Peer firms' size	9.27	.36	-.20	-.16	-.02	-.03	.20	.19	-.07	-.30	.00	-.18	.03	-.07	-.07	-.13	.08	.19	.33	-.25	-.19	-.20								
(22)	Peer firms' prestige	.17	.20	.25	.23	.32	.30	-.11	-.11	-.15	.20	-.22	.05	-.15	.07	.07	.20	.05	-.30	-.05	.18	.29	.11	-.24							
(23)	Peer firms' ROA	4.92	4.36	-.13	-.12	-.12	-.14	-.04	-.02	-.09	-.22	.17	.00	-.01	-.03	-.04	-.03	-.30	.49	.07	-.16	-.11	-.07	.06	-.31						
(24)	Peer firms' MTB	3.52	1.14	.33	.29	-.03	-.05	-.13	-.12	-.24	.11	.03	.11	-.21	.17	.15	.21	-.34	-.06	-.26	.54	.21	.11	-.45	.17	.24					
(25)	CSR actions by peer firms	.04	.11	.16	.13	-.06	-.04	-.08	-.08	-.12	.11	-.04	.06	-.09	.00	.04	.06	-.16	-.32	-.16	.26	-.02	.14	-.23	.10	-.07	.32				
(26)	International diversification actions by peers firms	.01	.02	.10	.08	.05	.07	.07	.04	-.01	.08	.03	.02	-.01	.07	.05	.04	-.04	-.12	.12	.18	.01	-.01	.00	.10	.00	.05	-.06			
(27)	Product-market diversification actions by peers firms	.00	.02	.07	.03	-.06	-.06	-.03	.04	.00	-.02	-.15	-.03	.04	.02	-.02	-.01	.03	-.12	-.07	.00	-.17	.08	-.07	.03	-.23	-.04	.03	.05		
(28)	Peer CEO charisma	4.97	.22	.26	.26	.10	.08	-.06	-.06	-.07	.19	-.07	.10	-.02	-.02	-.04	.06	-.09	-.18	-.02	.30	.21	.06	-.20	.25	-.15	.26	.17	.00	-.07	
(29)	Peer CEO narcissism	4.84	.23	.27	.27	.23	.22	-.17	-.16	-.11	.27	.01	.22	-.07	.09	.08	-.04	-.02	.03	-.11	.26	.28	.05	-.25	.29	-.05	.29	.11	.02	-.13	.46

These descriptive statistics refer to cases that were common across the three DVs. Correlations above |.10| were statistically significant at p<.05

Table 2. GEE Models Predicting Inter-organizational imitation of corporate social responsibility (2001-2008)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Prior year CSR ^	0.773	0.750	0.753	0.726	0.725	0.723	0.722	0.726
	(0.014)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Selection hazard coefficient	0.043	0.043	0.041	0.042	0.041	0.041	0.041	0.042
	(0.035)	(0.035)	(0.036)	(0.037)	(0.036)	(0.037)	(0.037)	(0.037)
Firm size (logged sales)	0.004	-0.003	0.007	-0.006	-0.002	-0.002	-0.002	-0.005
	(0.016)	(0.016)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Firm prestige	0.081	0.074	0.085	0.070	0.076	0.075	0.075	0.071
	(0.048)	(0.048)	(0.049)	(0.049)	(0.049)	(0.049)	(0.049)	(0.049)
Return on assets	-0.003	-0.002	-0.002	-0.001	-0.002	-0.002	-0.002	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Market-to-book ratio	0.004	0.004	0.004	0.005	0.005	0.005	0.005	0.004
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Debt-to-equity ratio	-0.010	-0.010	-0.010	-0.010	-0.010	-0.011	-0.011	-0.010
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Industry dynamism ^	0.017	0.015	0.022	0.036	0.026	0.020	0.020	0.035
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.020)
Industry munificence	0.070	0.259	-0.060	0.166	0.132	0.147	0.169	0.226
	(0.453)	(0.449)	(0.444)	(0.438)	(0.439)	(0.439)	(0.439)	(0.439)
CEO likeability	0.032	0.033	0.019	0.024	0.021	0.018	0.018	0.025
	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)
CEO charisma	0.019	0.022	0.036	0.044	0.041	0.041	0.041	0.045
	(0.029)	(0.030)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)
CEO narcissism	0.006	0.009	-0.002	-0.001	0.001	0.001	0.001	-0.001
	(0.018)	(0.018)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Number of peer firms	-0.001	0.000	-0.003	-0.003	-0.002	-0.001	-0.001	-0.001
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Peer CEO's likeability	0.001	0.035	-0.016	0.058	0.036	0.019	0.018	0.064
	(0.082)	(0.081)	(0.081)	(0.080)	(0.081)	(0.080)	(0.080)	(0.081)
Peer firms' CSR profile	-0.096	-0.099	-0.076	-0.065	-0.077	-0.078	-0.079	-0.067
	(0.063)	(0.062)	(0.062)	(0.061)	(0.061)	(0.061)	(0.061)	(0.061)
Peer firms' size	0.132	0.118	0.120	0.070	0.099	0.101	0.102	0.072
	(0.056)	(0.056)	(0.056)	(0.056)	(0.055)	(0.055)	(0.055)	(0.056)
Peer firms' prestige	0.240	0.288	0.191	0.206	0.242	0.234	0.235	0.222
	(0.227)	(0.225)	(0.224)	(0.221)	(0.222)	(0.222)	(0.222)	(0.222)
Peer firms' ROA	0.004	0.004	0.004	0.005	0.005	0.005	0.005	0.005
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Peer firms' MTB	-0.008	-0.010	-0.006	-0.006	-0.007	-0.008	-0.009	-0.008
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Recent CSR actions by peer firms	0.012	-0.154	0.179	-0.009	0.024	0.016	-0.014	-0.142
	(0.014)	(0.037)	(0.031)	(0.045)	(0.048)	(0.058)	(0.048)	(0.107)
Recent CSR actions by charismatic CEOs ^		0.180		0.210	0.209	0.191	0.199	0.171
		(0.037)		(0.038)	(0.038)	(0.052)	(0.038)	(0.075)
Recent CSR actions by narcissistic CEOs ^			-0.177	-0.187	-0.213	-0.191	-0.169	-0.117
			(0.031)	(0.030)	(0.035)	(0.030)	(0.036)	(0.056)
Recent CSR actions by charismatic CEOs × Industry dynamism				0.038				0.039
				(0.013)				(0.015)
Recent CSR actions by narcissistic CEOs × Industry dynamism					1.523			0.035
					(1.158)			(1.353)
Recent CSR actions by charismatic CEOs × Prior CSR						0.005		0.003
						(0.012)		(0.024)
Recent CSR actions by narcissistic CEOs × Prior CSR							0.014	0.024
							(0.013)	(0.025)
Constant	-1.627	-1.670	-1.396	-1.282	-1.452	-1.396	-1.401	-1.343
	(0.659)	(0.653)	(0.654)	(0.646)	(0.647)	(0.648)	(0.646)	(0.652)
Chi2	6,418.78	6,783.86	6,770.97	6,955.40	6,875.26	6,858.67	6,834.52	6,933.16

N=1,158; Industry and year fixed effects included; ^ For ease of interpretation, these variables were standardized prior to entering in the regression

Table 3. GEE Models Predicting Inter-organizational imitation of international diversification (2001-2012)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Prior year international diversification ^	0.258	0.240	0.251	0.236	0.236	0.235	0.236	0.235
	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Selection hazard coefficient	0.006	-0.000	0.003	-0.000	-0.000	0.001	-0.000	0.001
	(0.007)	(0.010)	(0.008)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Firm size (logged sales)	0.000	0.001	0.000	0.001	0.001	0.001	0.001	0.001
	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Firm prestige	-0.001	0.005	0.006	0.009	0.009	0.008	0.008	0.006
	(0.011)	(0.013)	(0.011)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Return on assets	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Market-to-book ratio	-0.000	0.001	0.000	0.001	0.001	0.001	0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Debt-to-equity ratio	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
CEO likeability	-0.008	-0.007	-0.008	-0.006	-0.006	-0.006	-0.006	-0.004
	(0.006)	(0.007)	(0.006)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
CEO charisma	0.009	0.011	0.010	0.010	0.010	0.011	0.011	0.009
	(0.007)	(0.008)	(0.007)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
CEO narcissism	0.000	0.002	-0.000	0.001	0.001	0.001	0.001	0.001
	(0.004)	(0.005)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Industry dynamism ^	0.003	0.006	0.002	0.006	0.006	0.006	0.005	0.005
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Industry munificence	0.286	0.238	0.320	0.223	0.248	0.260	0.275	0.224
	(0.146)	(0.143)	(0.145)	(0.145)	(0.145)	(0.142)	(0.143)	(0.145)
Number of peer firms	-0.004	-0.003	-0.004	-0.003	-0.003	-0.003	-0.004	-0.003
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Peer CEO's likeability	-0.035	-0.026	-0.034	-0.026	-0.025	-0.023	-0.025	-0.019
	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)
Peer firms' international diversification	-0.289	-0.260	-0.293	-0.272	-0.270	-0.264	-0.268	-0.247
	(0.050)	(0.050)	(0.050)	(0.050)	(0.050)	(0.050)	(0.050)	(0.050)
Peer firms' size	-0.008	0.001	-0.009	-0.001	-0.002	-0.001	-0.001	-0.001
	(0.013)	(0.014)	(0.013)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Peer firms' prestige	0.003	0.007	0.039	0.043	0.040	0.037	0.034	0.039
	(0.055)	(0.061)	(0.058)	(0.062)	(0.062)	(0.061)	(0.061)	(0.061)
Peer firms' ROA	0.005	0.005	0.005	0.004	0.004	0.005	0.004	0.004
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Peer firms' MTB	0.005	0.004	0.005	0.003	0.004	0.004	0.004	0.004
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Recent international diversification actions by peers firms	-0.018	-0.051	0.047	-0.000	0.005	-0.004	0.007	-0.031
	(0.005)	(0.007)	(0.016)	(0.018)	(0.018)	(0.018)	(0.018)	(0.020)
Recent international diversification actions by charismatic CEOs ^		0.045		0.044	0.043	0.058	0.043	0.045
		(0.007)		(0.007)	(0.007)	(0.010)	(0.007)	(0.014)
Recent international diversification actions by narcissistic CEOs ^			-0.066	-0.055	-0.058	-0.061	-0.058	-0.068
			(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.017)
Recent international diversification actions by charismatic CEOs × Industry dynamism				0.006				0.006
				(0.004)				(0.004)
Recent international diversification actions by narcissistic CEOs × Industry dynamism					0.003			0.002
					(0.003)			(0.003)
Recent international diversification actions by charismatic CEOs × Prior international diversification						-0.011		-0.016
						(0.005)		(0.005)
Recent international diversification actions by narcissistic CEOs × Prior international diversification							0.032	0.034
							(0.006)	(0.010)
Constant	0.542	0.375	0.554	0.411	0.407	0.390	0.402	0.366
	(0.174)	(0.183)	(0.177)	(0.184)	(0.184)	(0.184)	(0.184)	(0.182)
Chi2	7,320.69	7,762.44	7,535.24	7,893.07	7,799.05	7,856.88	7,904.28	7,992.75

N=1,235; Industry and year fixed effects included; ^ For ease of interpretation, these variables were standardized prior to entering in the regression

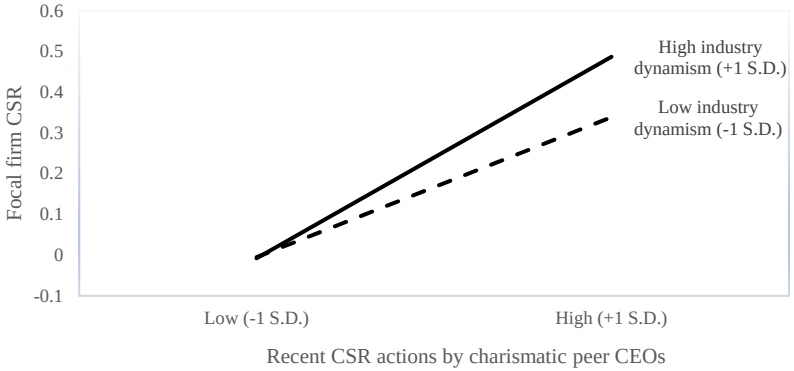
Table 4. GEE Models Predicting Inter-organizational imitation of product-market diversification (2001-2012)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Prior product-market diversification (logged) ^	0.288	0.274	0.277	0.242	0.238	0.229	0.234	0.198
	(0.003)	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Selection hazard coefficient	0.004	0.002	0.004	0.001	0.001	-0.002	0.001	-0.004
	(0.007)	(0.008)	(0.008)	(0.008)	(0.009)	(0.008)	(0.009)	(0.008)
Firm size (logged sales)	-0.002	0.003	0.000	0.007	0.009	0.009	0.009	0.008
	(0.003)	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)
Firm prestige	-0.005	0.009	-0.008	0.010	0.009	0.009	0.010	0.025
	(0.009)	(0.010)	(0.010)	(0.011)	(0.012)	(0.011)	(0.012)	(0.010)
Return on assets	0.001	0.000	0.001	0.001	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Market-to-book ratio	-0.002	-0.002	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Debt-to-equity ratio	0.002	0.002	0.002	0.001	0.001	0.002	0.001	0.002
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
CEO likeability	-0.001	-0.002	-0.006	-0.014	-0.013	-0.014	-0.012	-0.013
	(0.005)	(0.005)	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)	(0.005)
CEO charisma	0.002	0.003	0.008	0.018	0.016	0.016	0.016	0.018
	(0.006)	(0.007)	(0.007)	(0.007)	(0.008)	(0.007)	(0.008)	(0.007)
CEO narcissism	-0.006	-0.002	-0.008	-0.004	-0.003	-0.004	-0.003	-0.006
	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Industry dynamism ^	0.003	0.004	0.003	0.004	0.004	0.004	0.004	0.004
	(0.004)	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Industry munificence	0.048	0.022	0.019	-0.058	-0.037	-0.061	-0.040	-0.081
	(0.075)	(0.072)	(0.074)	(0.067)	(0.069)	(0.067)	(0.068)	(0.059)
Number of peer firms	-0.003	-0.002	-0.003	-0.002	-0.001	-0.000	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Peer CEO's likeability	0.009	0.009	0.008	0.005	0.010	0.008	0.009	0.009
	(0.014)	(0.014)	(0.014)	(0.013)	(0.014)	(0.013)	(0.014)	(0.012)
Peer firms' product-market diversification	-0.087	-0.106	-0.089	-0.101	-0.108	-0.095	-0.110	-0.073
	(0.029)	(0.028)	(0.029)	(0.027)	(0.027)	(0.026)	(0.027)	(0.024)
Peer firms' size	-0.003	-0.001	-0.004	-0.005	-0.006	-0.003	-0.004	0.001
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.008)	(0.009)	(0.008)
Peer firms' prestige	-0.035	-0.019	-0.016	0.011	0.022	0.029	0.017	0.046
	(0.040)	(0.039)	(0.040)	(0.036)	(0.037)	(0.036)	(0.037)	(0.032)
Peer firms' ROA	-0.000	0.000	-0.000	0.001	0.000	0.000	0.000	0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Peer firms' MTB	0.001	0.000	0.001	0.001	0.001	-0.001	0.002	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Recent product-market diversification actions by peers firms	-0.279	-0.555	-0.049	-0.241	-0.173	-0.567	0.073	0.238
	(0.073)	(0.075)	(0.080)	(0.075)	(0.078)	(0.081)	(0.098)	(0.086)
Recent product-market diversification actions by charismatic CEOs ^		0.030		0.044	0.048	0.074	0.049	0.040
		(0.003)		(0.003)	(0.003)	(0.004)	(0.003)	(0.004)
Recent product-market diversification actions by narcissistic CEOs ^			-0.019	-0.040	-0.043	-0.041	-0.062	-0.033
			(0.003)	(0.003)	(0.003)	(0.003)	(0.005)	(0.006)
Recent product-market diversification actions by charismatic CEOs × Industry dynamism				0.022				0.025
				(0.002)				(0.002)
Recent product-market diversification actions by narcissistic CEOs × Industry dynamism					-0.002			-0.001
					(0.002)			(0.002)
Recent product-market diversification actions by charismatic CEOs × Prior product-market diversification						-0.043		-0.082
						(0.004)		(0.004)
Recent product-market diversification actions by narcissistic CEOs × Prior product-market diversification							0.017	0.023
							(0.004)	(0.004)
Constant	0.418	0.333	0.417	0.348	0.306	0.310	0.302	0.308
	(0.118)	(0.117)	(0.118)	(0.112)	(0.114)	(0.111)	(0.114)	(0.099)
Chi2	10,518.59	15,500.53	16,275.92	16,370.43	16,255.33	16,322.33	16,469.60	18,030.98

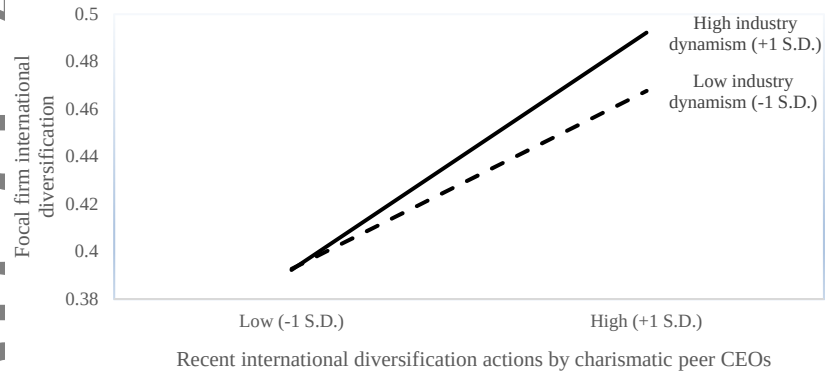
N=1,839; Industry and year fixed effects included; ^ For ease of interpretation, these variables were standardized prior to entering in the regression

Figure 1. The effects of recent actions of charismatic peer CEOs on focal firm's actions under high versus low industry dynamism. (a) Corporate social responsibility; (b) International diversification; (c) Product-market diversification

(a)



(b)



(c)

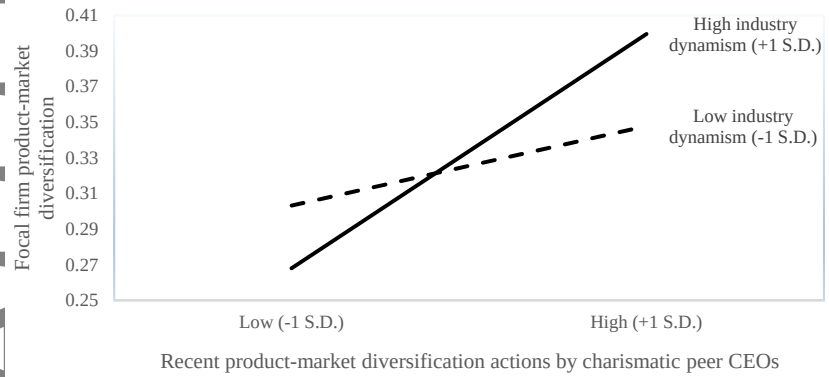


Figure 2. The effects of recent actions of charismatic peer CEOs on focal firm's actions under high versus low prior strategic experience. (a) International diversification; (b) Product-market diversification

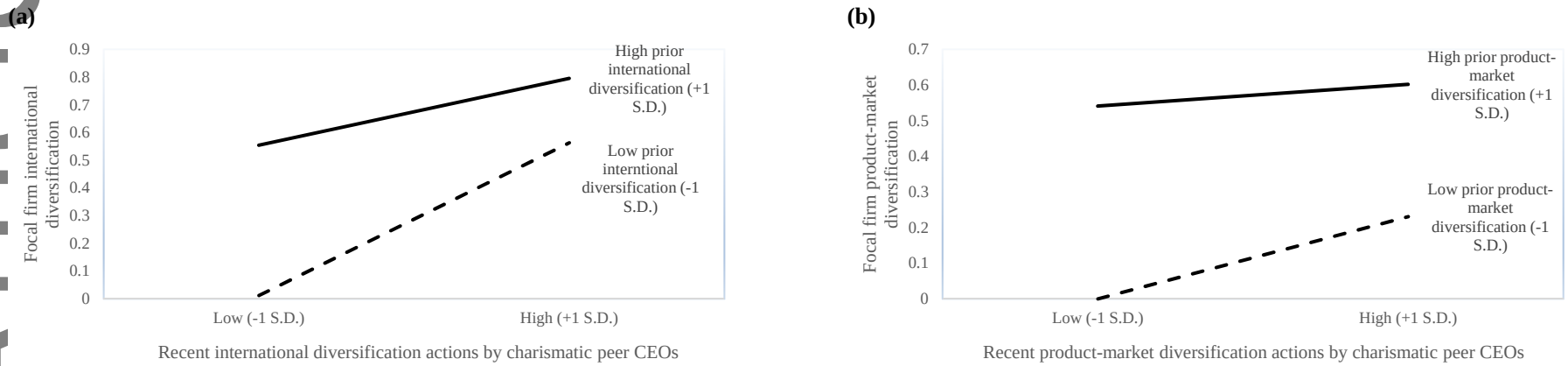


Figure 3. The effects of recent actions of narcissistic peer CEOs on focal firm's actions under high versus low prior strategic experience. (a) International diversification; (b) Product-market diversification