




CEO Narcissism and the Impact of Prior Board Experience on Corporate Strategy

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Abstract

We examine how chief executive officer (CEO) narcissism influences the inter-organizational imitation of corporate strategy. We theorize that narcissistic CEOs are influenced more by the corporate strategies they experienced on other boards and less by the corporate strategies experienced by other directors. These effects are strengthened if the other firms to which the CEO has interlock ties have high status and if the CEO is powerful. Through longitudinal analyses of *Fortune* 500 companies' decisions (from 1997 to 2006) related to the acquisition emphasis of a firm's growth strategy and the firm's level of international diversification, we show that narcissistic CEOs are influenced by corporate strategies that they witnessed at other firms much more than other CEOs. In addition, relatively narcissistic CEOs not only strongly resist the influence of other directors' prior experience but also tend to demonstrate their superiority by adopting corporate strategies that are the opposite of what fellow directors' prior experience would suggest. Our theory and results highlight how CEO narcissism limits directors' influence over corporate strategy and influences CEOs' learning and information processing in making strategic decisions.

Keywords: board of directors, interlocks, chief executive officers, narcissism, learning, imitation, power, status, acquisitions, international diversification.

A long tradition of organization research suggests that under conditions of uncertainty, organizations tend to imitate the practices of others to acquire legitimacy (DiMaggio and Powell, 1983; Tolbert and Zucker, 1983) or to reduce the cost of search and experimentation (Cyert and March, 1963; Levitt and March, 1988). Firms are especially likely to imitate the practices of other firms to which their top executives have interlock ties, formed when directors on one board join another (Burt, 1987; Davis, 1991; Haunschild and Beckman, 1998; Fiss and Zajac, 2004). Prevailing theoretical perspectives in this literature

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suggest that, through observing other firms' decision-making processes as directors, executives may be socialized to believe in the appropriateness of these firms' practices (Galaskiewicz and Wasserman, 1989; Westphal, Seidel, and Stewart, 2001) and view these practices as vivid models for imitation in their subsequent decision making (Haunschild, 1993; Kraatz, 1998). Although these theoretical perspectives have helped explain interorganizational imitation in many important contexts (see reviews by Mizruchi, 1996; Shropshire, 2010; Fiss, Kennedy, and Davis, 2012), they have overlooked the notion that top executives' different personalities may lead them to interpret and process information about other firms' practices differently, leading to different patterns of interorganizational imitation. Evidence from psychological research has shown that personalities significantly influence information processing and decision making. One fundamental personality dimension of CEOs in particular, namely narcissism, could be expected to influence interorganizational imitation.

Narcissism—the degree to which an individual has an inflated self-view and craves affirmation of that self-view (Raskin and Terry, 1988; Campbell, 1999)—substantially influenced Freud's theory of psychology (Freud, 1957; also see review by Chatterjee and Hambrick, 2007) and has long been considered a central dimension of personality in clinical psychology, social psychology, and personality psychology (Judge, LePine, and Rich, 2006; Resick et al., 2009; Peterson, Galvin, and Lange, 2012). The upper echelon literature has also identified narcissism as a fundamental personality dimension of CEOs that influences their strategic decisions (Chatterjee and Hambrick, 2007, 2011; Gerstner et al., 2013). Narcissistic individuals tend to be excessively confident about their intelligence and judgment and to be arrogant and disagreeable (Rhodewalt and Morf, 1998; Campbell and Miller, 2011). They also seek continuous affirmation of their inflated self-view by exhibiting their superiority, devaluing others, and reacting aggressively to criticism (Paulhus and Williams, 2002; Carlson, Vazire, and Oltmanns, 2011).

We suggest that narcissism is likely to influence a CEO's learning based on prior experience with corporate strategies on other boards and may affect the CEO's processing of information related to fellow directors' prior experience with these strategies. We theorize that more-narcissistic CEOs are more likely than other CEOs to adopt corporate strategies that are similar to those they have witnessed themselves on other boards. In addition, more-narcissistic CEOs are less likely to be influenced by corporate strategies witnessed by fellow directors on other boards. In addition, these effects are strengthened if the other firms to which the CEO has interlock ties have high status and if the CEO is powerful. Through longitudinal analyses of *Fortune* 500 companies' decisions (from 1997 to 2006) related to the acquisition emphasis of a firm's growth strategy and the firm's level of international diversification, we find considerable support for our theory.

Our study contributes to organization research by introducing personality psychology to research on interorganizational imitation. Although personality psychology is a major branch of psychology and there is abundant evidence that top executives' personalities influence their strategic decisions, theoretical perspectives of interorganizational imitation have not considered how executives' different personalities may lead them to interpret and process information about other firms' practices differently in imitation decisions. Our study is a first step to address this issue and generates insights that are novel and even

surprising to the interorganizational imitation literature. For example, existing research suggests that a firm tends to imitate the strategic decisions of other firms to which the CEO or other directors have prior social ties. In contrast, we suggest and show that firms with more-narcissistic CEOs have significantly stronger tendencies than other firms to imitate the strategies their CEOs experienced on other boards, but much weaker tendencies to imitate the strategies other directors experienced at other firms.

This study also contributes to strategic management research by starting to investigate how CEOs' personalities may affect boards' influence over corporate strategy. Specifically, research suggests that boards of directors play increasingly important roles in influencing firms' strategic decisions (Westphal, 1999; Hillman and Dalziel, 2003). Yet little research has been conducted to understand how CEOs' personalities may limit directors' influence over strategy. Because narcissism substantially influences how people process information from others (Rhodewalt and Morf, 1998; Carlson, Vazire, and Oltmanns, 2011), we propose and show that narcissistic CEOs tend to disregard fellow directors' prior experience and strongly resist directors' influence over strategy, highlighting how CEO narcissism may reduce the effectiveness of boards' major functions.

CEO NARCISSISM AND THE IMPACT OF PRIOR BOARD EXPERIENCE ON CORPORATE STRATEGY

Interorganizational Imitation

Neo-institutional theorists suggest that organizations tend to imitate others when the consequence of adopting a practice is uncertain (DiMaggio and Powell, 1983; Tolbert and Zucker, 1983). Although the prior adoption of a practice by other firms generally reduces uncertainty about its economic value (Cyert and March, 1963; Levitt and March, 1988) and provides a firm with legitimate reasons to adopt it (DiMaggio and Powell, 1983), a firm is especially likely to imitate the decisions that its CEO and directors previously witnessed at other firms. Major strategic decisions are significantly influenced both by top executives' prior exposure to related decisions at other firms where they were employed (Boeker, 1997; Geletkanycz and Hambrick, 1997; Wezel, Cattani, and Pennings, 2006) and by their top executives' prior exposures to these decisions when they served as outside directors at other firms. Prior exposure to related decisions at other firms enables executives to learn about what practices are normal and appropriate (Useem, 1984; Galaskiewicz and Wasserman, 1989; Davis, 1991; Haunschild, 1993), offering opportunities for them to be socialized to believe in the merit of a given practice. For instance, board directors who participated in strategic decision making may persuade each other that certain practices are appropriate choices for the firm, even though there is no clear evidence for the efficiency of these practices (Galaskiewicz and Wasserman, 1989; Westphal, Seidel, and Stewart, 2001). This is consistent with social modeling theory, which posits that executives tend to view information related to the decisions of prior employers and interlock network partners as especially salient and reliable (Palmer, Jennings, and Zhou, 1993; Rao and Sivakumar, 1999; Shipilov, Li, and Greve, 2011). They are thus likely to reference decisions that they were previously exposed to at other firms (either as employees or as

outside directors), credit such decisions as being more appropriate and less uncertain, and use them as models for imitation in subsequent decision making.

We focus on the interorganizational imitation of two specific types of corporate strategies: the acquisition emphasis of a firm's growth strategy, defined as the firm's total acquisition expenditure relative to its size (e.g., Chatterjee and Hambrick, 2007), and the firm's level of international diversification, defined as the degree to which a firm expands beyond its domestic market into other countries (e.g., Hitt et al., 2006). Decisions on both types of strategies involve much uncertainty and can be significantly influenced by directors' (including the CEO's) prior exposure to them at other firms (Lorsch and MacIver, 1989; Haunschild, 1993; Carpenter, Geletkanycz, and Sanders, 2004; McDonald, Westphal, and Graebner, 2008; Zhu, 2013). We posit that a firm's decisions about acquisition emphasis and international diversification (corporate strategies hereafter) will be influenced by the corresponding type of strategic decisions experienced by its directors (including the CEO) at other firms. For instance, directors who have witnessed firms' decisions to spend a greater portion of their resources in acquiring other firms will be more aware that such an acquisition-oriented growth strategy can help to achieve rapid growth and fast market entry (e.g., Buckley and Casson, 1998). In addition, directors' prior exposure to firms' support for a strong acquisition emphasis can help them learn about effective ways to address the challenges involved, such as best practices in terms of post-acquisition integration. In contrast, prior exposure to a relatively low degree of acquisition emphasis will make directors more aware of the risks of acquisitions and the advantages of focusing on internal growth. Similarly, directors who have witnessed other firms' decisions to expand into foreign markets are more likely than directors who haven't to consider international expansion in subsequent decisions about corporate strategy (Carpenter, Geletkanycz, and Sanders, 2004; Connelly et al., 2011). This leads to our baseline hypotheses:

Hypothesis 1 (H1): The more that a CEO has witnessed a given type of corporate strategy at other firms, the more the focal firm will adopt that type of corporate strategy.

Hypothesis 2 (H2): The more that other directors have witnessed a given type of corporate strategy at other firms, the more the focal firm will adopt that type of corporate strategy.

Prior research has typically suggested that the focal firm's decision about a given type of corporate strategy is positively influenced by the aggregated prior experience of all directors with that type of corporate strategy (Haunschild, 1993; Haunschild and Beckman, 1998). In the present study, we argue that the CEO's prior experience should be regarded separately from that of other directors to better understand how the CEO's personality may influence interorganizational imitation. Prior research suggests that the CEO typically initiates and implements major corporate strategies while other directors mainly influence these decisions by offering the CEO advice (Lorsch and MacIver, 1989; Westphal, Seidel, and Stewart, 2001; Hillman and Dalziel, 2003). Although our baseline hypotheses suggest that the CEO's prior experience and other directors' prior experience with a given type of corporate strategy would both

positively influence the focal firm's corporate strategy, narcissism may influence the effect of the CEO's prior experience versus the effect of other directors' prior experience on the focal firm's corporate strategy.

CEO Narcissism

Although early studies tended to treat narcissism as a personality disorder, later studies have widely conceptualized it as a personality dimension along which all individuals can be arrayed (Raskin and Terry, 1988; Campbell, 1999; Carlson, Vazire, and Oltmanns, 2011). Prior studies have consistently found narcissism to be associated with self-focus, self-admiration, a sense of entitlement, and a sense of superiority (Raskin and Terry, 1988; Campbell, 1999), and many management studies have further identified narcissism as a fundamental personality trait of CEOs (Judge, LePine, and Rich, 2006; Chatterjee and Hambrick, 2007; Resick et al., 2009; Peterson, Galvin, and Lange, 2012). Narcissistic CEOs tend to favor bold actions, such as large acquisitions, that attract attention (Chatterjee and Hambrick, 2007). They are also less responsive than other CEOs to objective indicators of their performance but more responsive to social praise (Chatterjee and Hambrick, 2011). For instance, while narcissistic CEOs tend to aggressively adopt technological discontinuities, they are especially likely to do so when such behavior is expected to garner attention and admiration from external audiences (Gerstner et al., 2013). CEO narcissism has also been associated with extreme and fluctuating financial performance, although there is no evidence that it affects long-term performance outcomes (Chatterjee and Hambrick, 2007).

Prior research suggests that narcissism has both cognitive and motivational elements (Campbell and Miller, 2011). On the cognitive side, narcissists tend to believe that they are extraordinarily talented and endowed with superior qualities such as intelligence, competence, innovativeness, and leadership (John and Robins, 1994; Judge, LePine, and Rich, 2006). Such inflated self-views make them especially confident in their abilities and judgment in task domains (Farwell and Wohlwend-Lloyd, 1998; Chatterjee and Hambrick, 2007). On the motivational side, narcissistic individuals seek to have their inflated self-views continuously reaffirmed (Campbell, 1999; Morf and Rhodewalt, 2001) through various types of behavior that invite applause and admiration. For example, narcissists seek to garner admiration by outperforming others whenever they can (Wallace and Baumeister, 2002). When efforts to outperform others fail to garner any applause, narcissists tend to become angry and devalue others in order to reinforce their inflated self-views (Rhodewalt and Morf, 1998).

While some studies on leadership have found that certain qualities of narcissists, such as charisma and self-esteem, may help them get promoted to the CEO position (Rosenthal and Pittinsky, 2006), there is considerable variance in narcissistic tendencies across CEOs (Chatterjee and Hambrick, 2007, 2011; Peterson, Galvin, and Lange, 2012). Next we suggest that CEO narcissism may affect how CEOs learn from their prior experience and process information about other directors' prior experience, leading to different patterns of interorganizational imitation of corporate strategies.

Narcissism and the effect of the CEO's prior experience. More-narcissistic CEOs are likely to be influenced more than less-narcissistic CEOs by the corporate strategies that they witnessed as members of other boards for two primary reasons. First, the motivational aspect of narcissism suggests that narcissistic individuals tend to interpret their past behavior very positively so as to maintain their inflated high self-esteem (Gabriel, Critelli, and Ee, 1994; Farwell and Wohlwend-Lloyd, 1998; Carlson, Vazire, and Oltmanns, 2011), especially when their behavior is publicly visible (Wallace and Baumeister, 2002; Campbell and Miller, 2011). A more-narcissistic CEO is more likely to interpret positively the strategic decisions that he or she experienced at other firms. This is because *Fortune* 500 directors are typically viewed as being associated with firms' major decisions, for which they typically present their unanimous support (Lorsch and MacIver, 1989; Westphal and Khanna, 2003; Westphal and Bednar, 2008; Zhu, 2013). Given that a narcissistic CEO is publicly associated with the major strategic decisions of other firms as a member on their boards, interpreting such prior decisions positively will help that person feel good and maintain his or her inflated self-esteem (Morf and Rhodewalt, 2001; Chatterjee and Hambrick, 2007, 2011). In contrast, a narcissistic CEO is unlikely to interpret negatively the strategic decisions that he or she was associated with because such an exercise would undermine self-esteem. These arguments suggest that a more-narcissistic CEO is more likely than another CEO to believe that the strategic decisions he or she experienced at other firms represent the appropriate choices. The corporate strategies of a firm that has a more-narcissistic CEO are thus likely to be influenced more by the CEO's prior experience with related strategies at other firms, resulting in a stronger tendency for the firm to imitate those firms' corporate strategies.

Second, the cognitive aspect of narcissism suggests that narcissistic CEOs tend to have fantasies of unlimited brilliance and competence (John and Robins, 1994; Farwell and Wohlwend-Lloyd, 1998) and believe that they learn more than others from the same learning opportunity (Paulhus, 1998). While CEOs in general learn about major corporate strategies from their prior experiences with them at other firms, more-narcissistic CEOs are more likely to assume that they have learned more than others because of their extraordinary intelligence and competence. They are thus likely to feel especially confident about their superior understanding of such strategies based on their firsthand experience with them on other boards. For instance, when narcissistic CEOs have been exposed to a strong acquisition emphasis at other firms, they will be confident that they have superior knowledge about how to successfully achieve firm growth through acquisitions; when they have been exposed to a weak acquisition emphasis at other firms, narcissistic CEOs will be confident in their superior understanding of how to effectively achieve growth through internal activities such as R&D. Moreover, narcissistic CEOs' confidence in their superior understanding of a given corporate strategy can erode their interest in conducting due diligence as part of the strategic decision-making process (Rhodes and Wood, 1992). This will further increase narcissistic CEOs' tendency to rely on their own prior experience when making decisions about corporate strategies. The more narcissistic the CEO is, the more the focal firm will imitate the corporate strategies that the CEO previously experienced at other firms.

Hypothesis 3 (H3): The more narcissistic the CEO, the more a given type of corporate strategy that the CEO witnessed at other firms will positively influence that type of corporate strategy at the focal firm.

Narcissism and the effect of other directors' prior experience. Although a firm's corporate strategies in general are positively influenced by directors' prior experience with them on other boards, the motivational aspect of narcissism suggests that a more-narcissistic CEO is less open to the influence of fellow directors' prior experience. Research on narcissism shows that narcissistic individuals tend to be dominant in interactions with others in part due to their need to feel superior (Campbell, 1999; Paulhus and Williams, 2002). There is also evidence from social psychology research that narcissistic team leaders tend to reduce the impact of other team members' valuable expertise on teams' decision outcomes (Nevicka et al., 2011). A more-narcissistic CEO is thus likely to be more dominant in interactions with other directors, reducing the impact of their prior experience on the firm's corporate strategies. In addition, social psychology research suggests that narcissistic people are especially motivated to be dominant in making visible and task-related decisions (Campbell and Miller, 2011). These decisions offer narcissistic individuals special self-enhancement opportunities, motivating them to demonstrate authority and superiority in order to garner admiration and applause (John and Robins, 1994; Wallace and Baumeister, 2002). In the context of this study, decisions about corporate strategies are highly visible and represent major tasks of the CEO (Lorsch and MacIver, 1989; Khurana, 2002). Thus a more-narcissistic CEO can be especially dominant in deciding major corporate strategies, reducing the influence of other directors' prior experience and weakening the focal firm's tendency to imitate the corporate strategies of other firms with which other directors were associated.

The cognitive aspect of narcissism suggests that a more-narcissistic CEO is less likely than another CEO to view other directors' input as valuable. Research suggests that narcissistic people tend to believe that they have superior intelligence, competence, and learning ability (John and Robins, 1994; Farwell and Wohlwend-Lloyd, 1998; Paulhus, 1998). Narcissistic CEOs who have accumulated firsthand experience with a given type of corporate strategy at other firms are especially likely to feel confident about their superior understanding of that type of corporate strategy; they tend to believe that they have learned more than others about the strategy. A more-narcissistic CEO is thus less likely than another CEO to believe that other directors' prior experience will help him or her know more about the type of corporate strategy under consideration (Rhodes and Wood, 1992); he or she is less likely to seek or consider advice from other directors. In contrast, a less-narcissistic CEO is more likely to believe that other directors' related experiences are valuable additions to the CEO's experience, increasing the likelihood that the focal firm will imitate the corporate strategies that other directors experienced at other firms. Thus,

Hypothesis 4 (H4): The more narcissistic the CEO, the less a given type of corporate strategy that other directors witnessed at other firms will positively influence that type of corporate strategy at the focal firm.

Moderating Effect of the Status of Other Firms Tied to the CEO

We have explained why the corporate strategies of firms that have more-narcissistic CEOs are influenced more by their CEOs' prior experience and less by other directors' prior experience, and we expect these effects to be even stronger when the CEO's prior experience has been acquired at high-status firms. The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) suggests that narcissistic individuals tend to believe that they are special and unique and should be associated with high-status institutions. There is also considerable evidence that narcissistic individuals tend to display their associations with high-status organizations or individuals to satisfy their inflated self-esteem (Campbell, 1999; Foster and Campbell, 2007).

The motivational aspect of narcissism suggests that a narcissistic CEO tends to interpret positively the corporate strategies that he or she previously experienced at other firms to maintain inflated self-esteem (Rhodes and Wood, 1992; Campbell, 1999; Carlson, Vazire, and Oltmanns, 2011), and this tendency will be stronger when the high status of those firms makes the CEO feel especially proud of being associated with their decisions (Paulhus, 1998; Foster and Campbell, 2007). Conversely, narcissistic CEOs are especially unlikely to interpret negatively their prior experience at other high-status firms because such an exercise will create an especially strong threat to their self-esteem. Moreover, the decisions of high-status firms are likely to be more visible to the public (Sanders and Tuschke, 2007). Given that the visibility of past behavior increases narcissistic people's tendency to positively interpret it (Wallace and Baumeister, 2002; Campbell and Miller, 2011), narcissistic CEOs are likely to interpret their prior experience at other high-status firms even more positively. These arguments suggest that a CEO's narcissism strengthens the influence of his or her prior experience on the focal firm's corporate strategies to a greater degree when the CEO has accumulated prior experience at high-status firms.

The cognitive aspect of narcissism suggests that narcissistic CEOs' fantasies of unlimited brilliance and learning ability (John and Robins, 1994; Farwell and Wohlwend-Lloyd, 1998) tend to make them believe that they have developed superior understanding of a given type of corporate strategy through first-hand experience with it at other firms. When narcissistic CEOs accumulate prior experience at other high-status firms, they can become even more confident about their superior understanding of the corporate strategy. Research on status suggests that high-status firms are widely credited with high-quality decision making (Stuart, Hoang, and Hybels, 1999; Graffin et al., 2008). Thus narcissistic CEOs are likely to be more confident about their superior understanding of a given type of corporate strategy when they believe that they have learned about such a strategy from high-quality decision-making processes. These arguments combine to suggest that more-narcissistic CEOs' tendency to be influenced more by their prior experience can be stronger when they have acquired prior experience at other high-status firms. Thus,

Hypothesis 5 (H5): The higher the status of the other firms with which the CEO was associated, the more CEO narcissism will strengthen the positive association

between the CEO's prior experience with a given type of corporate strategy and that type of corporate strategy at the focal firm.

CEO narcissism can also weaken the influence of other directors' prior experience on the focal firm's corporate strategy more when the CEO has acquired prior experience at other high-status firms. The motivational aspect of narcissism suggests that narcissistic CEOs tend to dominate in determining firms' corporate strategies. They need to feel superior in interactions with others and especially need to demonstrate their superiority in visible and task-related domains (Campbell and Miller, 2011). Because prior affiliations with high-status firms provide narcissistic CEOs with additional reasons to feel superior (Rhodes and Wood, 1992; Campbell, 1999; Carlson, Vazire, and Oltmanns, 2011), their tendency to dominate the strategic decision-making process can be even stronger, further reducing the influence of other directors' prior experience on the firm's corporate strategies. In contrast, narcissistic CEOs who acquired prior experience at lower-status firms may have fewer reasons to feel superior and hence tend to be less dominant in deciding firms' corporate strategies, allowing other directors' prior experience to influence these strategic decisions to a greater degree.

The cognitive aspect of narcissism also suggests that narcissistic CEOs tend to resist the influence of other directors' prior experience more when these CEOs have accumulated prior experience at other high-status firms. While narcissistic CEOs tend to believe that their understandings of corporate strategies are superior to other directors', this tendency can be even stronger when such understandings are based on firsthand experience with these strategies at other high-status firms, firms credited with high-quality decision making (Stuart, Hoang, and Hybels, 1999; Graffin et al., 2008). This indicates that they will have stronger tendencies to devalue other directors' prior experience, further reducing the impact of the directors' prior experience on firms' corporate strategies. Having suggested that other directors' prior experience with corporate strategies tends to have less influence over these strategies at firms that have more-narcissistic CEOs, we further expect that this effect will be even stronger when the CEO has acquired prior experience at other high-status firms.

Hypothesis 6 (H6): The higher the status of the other firms with which the CEO was associated, the more CEO narcissism will weaken the positive association between other directors' prior experience with a given type of corporate strategy and that type of corporate strategy at the focal firm.

Moderating Effect of CEO Power

The degree to which CEO narcissism influences interorganizational imitation may also depend on the CEO's power over the board. Prior studies suggest that more-powerful CEOs are better able to imprint their personal inclinations on major organizational outcomes (Hambrick and Finkelstein, 1987; Finkelstein, 1992; Finkelstein, Hambrick, and Cannella, 2009). In a series of studies, Westphal and Zajac (Westphal and Zajac, 1995; Zajac and Westphal, 1996; Westphal and Zajac, 1997) further suggested and found that the power of the CEO relative to other directors allows the CEO's preference to influence a range of major decisions, including the selection of new directors, the appointment of a new CEO, and other important corporate governance decisions, such

as an increase in board independence. Building on this stream of research, we suggest that narcissistic CEOs' tendency to rely more on their own prior experience in deciding firms' corporate strategies is also more likely to materialize in these strategies when such CEOs are more powerful relative to other directors. The power of a narcissistic CEO relative to the board may increase the likelihood that the board will approve the CEO's tendency to imitate the corporate strategies that he or she witnessed at other firms. In contrast, a narcissistic CEO who lacks power relative to the board may be constrained by other directors in making such decisions and hence less able to influence the firm's corporate strategies based on his or her prior experience with them at other firms. Thus, having suggested that firms with more-narcissistic CEOs have a stronger tendency to imitate the corporate strategies that their CEOs experienced on other boards, we expect that this effect will be even stronger when the CEO is more powerful.

Hypothesis 7 (H7): The greater the CEO's power, the more CEO narcissism will strengthen the positive association between the CEO's prior experience with a given type of corporate strategy and that type of corporate strategy at the focal firm.

A narcissistic CEO's resistance to the influence of other directors' prior experience is also more likely to materialize in the firm's corporate strategies when the CEO is more powerful. The power of a narcissistic CEO over the board can help the CEO successfully resist the influence of other directors' prior experience (Westphal and Zajac, 1995, 1997), reducing the focal firm's tendency to imitate the corporate strategies experienced by these directors at other firms. In contrast, a narcissistic CEO who lacks power over the board will be less able to resist other directors' influence. Such a CEO can be pressured to follow the suggestions from powerful directors, which increases the likelihood that the firm will imitate the corporate strategies that these directors experienced on other boards. CEO narcissism weakens the positive impact of other directors' prior experience on the focal firm's corporate strategies, and this effect will be stronger when the CEO is more powerful.

Hypothesis 8 (H8): The greater the CEO's power, the more CEO narcissism will weaken the positive association between other directors' prior experience with a given type of corporate strategy and that type of corporate strategy at the focal firm.

METHOD

Sample

Our sample frame included industrial and service companies on the 1995 *Fortune* 500 list. We randomly selected 300 public companies on the list and tracked their directors' board appointments at all publicly traded companies. We dropped observations from the final sample if complete data were not available. Our final sample consisted of 196 firms' acquisition activities and 199 firms' international diversification decisions in the period 1997–2006. Two-sample t-tests revealed no significant differences between our final sample and the initial sample of *Fortune* 500 firms in terms of firm size (measured by total

assets, total sales, and total number of employees) and performance (measured by return on assets).

Data and Measures

Our study focused on interorganizational imitation of two major types of corporate strategies—acquisition emphasis and international diversification.

Acquisition emphasis was measured as the total value of all acquisitions conducted by a firm in a given year (i.e., Year_{*t*}) divided by the firm's total sales in the same year (Fowler and Schmidt, 1989; Chatterjee and Hambrick, 2007).

We measured *international diversification* by using the ratio of a firm's international sales over its total sales (Tallman and Li, 1996; Hitt et al., 2006). Our results also held when the entropy measure of international diversification was used (Hitt, Hoskisson, and Kim, 1997). Given that our dependent variables were not distributed normally, we used their logarithm values in the analysis. We collected acquisition data from the SDC Platinum. Data on international diversification were collected from COMPUSTAT.

To measure a *CEO's prior experience*, we first calculated the degree of acquisition emphasis and international diversification for each firm where the CEO held a board position in the previous three years (i.e., from Year_{*t-3*} to Year_{*t-1*}, inclusive). Because more-recent experience may have a greater impact on the focal decision, we followed prior research (e.g., Geletkanycz and Hambrick, 1997) and multiplied prior decisions in years *t-1*, *t-2*, and *t-3* by factors of 1, 2/3, and 1/3, respectively. In addition, we multiplied prior decisions of an individual's employer firm by two because research suggests that prior experience at own-employer firms can have an especially large influence over executives' subsequent decisions (Boeker, 1997; Geletkanycz and Hambrick, 1997; Wezel, Cattani, and Pennings, 2006).¹ We then calculated the log-transformed mean of the adjusted values of prior decisions for all firms tied to the CEO in the previous three years. For example, assume that the focal CEO served as an inside director at a second firm A and as an outside director at a third firm B. Assume also that firm A's total acquisition expenditure accounted for 10, 15, and 20 percent of its annual sales in years *t-1*, *t-2*, and *t-3*, respectively. Firm B's total acquisition expenditure accounted for 20, 25, and 30 percent of its annual sales in years *t-1*, *t-2*, and *t-3*, respectively. The CEO's prior experience with acquisition emphasis can then be calculated as the log-transformed average of $2*10\% + 2*15\%*2/3 + 2*20\%*1/3 + 20\% + 25\%*2/3 + 30\%*1/3$, which equals $\log(0.167)$ or -1.790 .

Directors' prior experience with acquisition emphasis and international diversification was calculated similarly: we calculated the log-transformed average value of prior decisions experienced by other directors of the focal board in the previous three years after adjusting for recency effect and employer firm effect as described above.

¹ Our primary analysis focuses on an individual's prior experience as either an inside director or an outside director at other firms. This focus is consistent with our interest in the impact of interlocks on interorganizational imitation. In an additional analysis, we further considered an individual's prior experience as a non-director executive at other firms in measuring prior experience. This alternative measure affects less than 15 percent of our observations and produces results (available upon request) that are consistent with our primary findings.

In separate analyses, we also used the log-transformed median value of prior decisions experienced by the CEO/other directors as alternative measures of their prior experiences and obtained consistent results. In an additional analysis, we further measured the prior experience of the CEO and other directors without adjusting for the recency effect or employer-firm effect, and we still obtained consistent support for our hypotheses. Board membership information came from the Compact Disclosure database (Linck, Netter, and Yang, 2008). We used a director's name and birth year to identify his or her membership on different boards.

CEO narcissism. While the Narcissistic Personality Inventory (NPI) is the prevailing instrument for measuring narcissism, CEOs of *Fortune* 500 companies are unlikely to respond to survey questions about sensitive traits such as narcissism (Cycyota and Harrison, 2002). One widely adopted alternative approach is to use unobtrusive indicators of personality. Chatterjee and Hambrick (2007, 2011) developed and validated a set of unobtrusive indicators of CEO narcissism, and we followed their approach in this study.²

We coded the *prominence of the CEO's photograph* in annual reports as one point if the annual report included no photograph of the CEO; two points if the CEO was photographed with other executives and their photos occupied less than half a page; three points if the CEO was photographed with other executives and their photos occupied more than half a page; four points if the photo was of the CEO alone and occupied less than half a page; and five points if the CEO's photo was of him or her alone and occupied more than half a page. CEOs usually make specific demands about how their photos are portrayed in annual reports (Chatterjee and Hambrick, 2007). Accordingly, more-narcissistic CEOs can be expected to portray more-prominent photos in annual reports to underline their importance and leadership. We obtained annual reports mainly from Mergent Online, supplemented by company websites.

CEO prominence in company press releases was measured as the number of times the CEO was mentioned by name in the company's press releases divided by the total number of the company's press releases. CEOs usually exert stringent control over the content of company press releases and typically review all but the most routine issues (Chatterjee and Hambrick, 2007). A more-narcissistic CEO can be expected to have his or her name mentioned more often as an exercise of vanity and as a reminder to external constituents of his or her importance and authority. We obtained press release data from LexisNexis Academic.

CEO's relative cash pay was measured as the CEO's salary and bonus divided by that of the second-highest-paid executive in the firm. *CEO's relative non-cash pay* was the CEO's non-cash compensation divided by that of the

² Chatterjee and Hambrick (2011) suggested that the CEO's use of first-person singular pronouns in interviews should be excluded from the narcissism index because it weakens the internal reliability of the index. We also found that this additional indicator was not significantly correlated with other indicators of narcissism. In an additional analysis, however, we measured CEO narcissism by the use of first-person singular pronouns alone and found support for H1–H7 in the context of acquisition emphasis and for H1–H5 in the context of international diversification. Given that prior studies in other contexts have found narcissism to be significantly correlated with the use of first-person singular pronouns (e.g., Raskin and Shaw, 1988), our findings suggest that this additional indicator might have captured some aspects of narcissism that other indicators do not.

second-highest-paid executive. Because the CEO almost entirely controls the compensation of other executives, a narcissistic CEO can be expected to create a larger pay gap from the second-highest-paid executive to underline that he or she is far more valuable than anyone else in the company. Compensation data came from COMPUSTAT's Executive Compensation database.

Chatterjee and Hambrick (2007: 365) further elaborated on how the above indicators map onto the primary elements of the narcissistic personality. They showed that the narcissism score was much more a reflection of individual CEOs than of the firms. In addition, they reported that a panel of 40 experienced securities analysts rated CEOs in their sample very much in line with the unobtrusive index scores ($r = .82$). In a recent study, O'Reilly et al. (2013) reported that CEO narcissism measured by a variant of the NPI is highly correlated with the CEO's compensation relative to other top executives at .40, providing further evidence that two of our unobtrusive indicators are valid measures of narcissism.

In our primary analysis, we used the two-year moving average value of each narcissism indicator (excluding the starting and ending year of each CEO's tenure when applicable) and generated the measure of *CEO narcissism* by calculating the simple mean, after standardization, of these four indicators. Similar to the statistics reported by Chatterjee and Hambrick (2007, 2011), the correlations among our four indicators of narcissism were all positive and highly significant. In addition, an exploratory factor analysis with a principal axis factoring procedure showed that all four indicators loaded on a single factor (with average loadings above .50), explaining 36.8 percent of the variance (comparable to the 38.5 percent variance reported by Chatterjee and Hambrick, 2011). In an additional analysis, we measured CEO narcissism in the second and third years of each CEO's tenure and found consistent results. Because some CEOs in our sample started their tenures prior to the start of our study period, we did not have their narcissism measures in the second and third years of their tenure. We thus used the moving average measure of narcissism in our primary analysis.

To further assess the validity of our narcissism measure, we obtained access to 76 videos of face-to-face interviews that a journalist conducted with 24 *Fortune* 500 CEOs. Prior psychological studies on personality have used short videos of individuals to present their personalities to raters (see the review by Oltmanns et al., 2004). There is also evidence that an individual's narcissistic personality can be observed during his or her interactions with others (John and Robins, 1994; Paulhus, 1998; O'Reilly et al., 2013). Therefore there is sufficient reason to believe that CEOs' narcissistic tendencies can be observed based on their interview videos. Two experienced psychologists independently watched all the videos and rated each CEO's narcissistic tendency based on the NPI-16, which is a psychometrically validated shorter version of NPI (Ames, Rose, and Anderson, 2006; O'Reilly et al., 2013). The Intraclass Correlation Coefficient (ICC) based on a two-way model is .78 ($p < .01$), reflecting a high level of agreement between the two raters. CEO narcissism measured by the NPI-16 correlated with our unobtrusive index at .84, providing further support for the validity of our measure.

To measure the status of other firms with which the CEO was previously associated (*status of firms tied to the CEO*), we first measured the status of each firm by using the sum of standard scores of firm size (calculated as the logarithm of total sales), performance (calculated as the firm's return on assets

minus the industry average return on assets), and whether the firm was ranked as one of the top 50 America's Most Admired Companies by *Fortune* magazine in each year. All three indicators have been often used in prior research to measure firm status (e.g., Podolny and Phillips, 1996; Piazza and Castellucci, 2014). The Most Admired Companies are selected based on rankings along nine criteria, ranging from investment value to innovativeness to social responsibility. Thus our status index captures the overall status of a firm along a wide range of dimensions. We used the average status of other firms tied to the CEO as our primary measure.

CEO power was measured by seven indicators that have been widely used in existing research (Zajac and Westphal, 1996; Finkelstein, Hambrick, and Cannella, 2009). Specifically, *CEO tenure* was measured by the number of years an executive served as the focal company's CEO (e.g., Wade, O'Reilly, and Chandratat, 1990). *CEO's total number of other board appointments* was measured by the focal CEO's total number of board appointments at other *Fortune* 500 companies (e.g., Hillman and Dalziel, 2003). *Percentage of inside directors* was measured by the number of inside directors divided by the total number of directors on the board (e.g., Westphal and Zajac, 1995). *Percentage of outside directors appointed after the CEO* was measured by the percentage of outside directors appointed during the CEO's tenure (e.g., Pollock, Fischer, and Wade, 2002). *Outside directors' ownership* was calculated as the total percentage of shares held by outside directors. *CEO's stock ownership* was measured by the total percentage of shares held by the CEO (e.g., Porac, Wade, and Pollack, 1999).³ Finally, *CEO duality* was measured by a dummy variable equal to one if the CEO was also the board chairman. We combined these seven indicators into a single index of CEO power by using the sum of their standard scores.

Controls. We controlled for the main effects of our moderating variables (i.e., *CEO narcissism*, *CEO power*, and *status of firms tied to the CEO*) and the interactions between the *CEO's prior experience* and *other directors' prior experience*. In addition, we controlled for the *variation of CEO's prior experience* and the *variation of directors' prior experience*. Variation was calculated as the coefficient of variation, which has been widely used to measure variation in a continuous variable (Beckman and Haunschild, 2002; Zhu, 2013). We controlled for the age of the CEO (*CEO age*) and the age of the firm (*firm age*), because they can influence managerial discretion as well as risk-related decisions (Finkelstein, Hambrick, and Cannella, 2009). We controlled for *firm size* (measured by the log-transformed total sales), return on assets (*ROA*), and *debt-to-equity ratio* (Haunschild, 1993; Hitt et al., 2006). We also controlled for the influence of institutional investors by using the percentage of shares held by them (*institutional ownership*) (Westphal and Bednar, 2008). We controlled for the *network centrality* of a firm (Haunschild, 1993), calculated as the total number of firms that shared interlock ties with the focal firm from Year_{*t-3*} to Year_{*t-1*}.

Moreover, we controlled for several widely used proxies of managerial discretion (Hambrick and Finkelstein, 1987; Finkelstein, Hambrick, and Cannella,

³ The CEO's stock ownership is correlated with CEO narcissism at $-.12$ in our sample. Chatterjee and Hambrick (2007: 373) reported that these two variables were correlated at $-.17$. This negative correlation suggests that the effect of CEO narcissism is unlikely to be explained by the CEO's stock ownership.

2009). At the industry level, we controlled for an *industry's average advertising intensity* (calculated as advertising expenses divided by sales), *R&D intensity* (measured by research and development expenses divided by sales), and *capital intensity* (calculated as the net value of property, plant, and equipment divided by the number of employees). Prior research suggests that these three variables capture the degree of product differentiability in a given industry and hence can reflect the degree of managerial discretion (Hambrick and Abrahamson, 1995). In addition, we controlled for *market uncertainty* (calculated as the standard error of the regression slope for industry sales over the previous five years, divided by the mean of industry sales over the same period) and *market munificence* (measured by the average growth in industry sales over the previous five years) (Li and Tang, 2010). Because these two variables are highly skewed, we used their log-transformed values in our analyses. These measures can also capture industry conditions that potentially influence the focal firm's acquisition emphasis and international diversification decisions. We included year dummies and industry dummies in all models.

In our analysis of acquisition emphasis, we further controlled for the acquisition emphasis of the firm prior to the start of the focal CEO's tenure (*pre-CEO acquisition emphasis*) and the average acquisition emphasis of the focal firm's industry (*industry acquisition emphasis*). In addition, we controlled for several variables that have been shown to influence a firm's acquisition emphasis in growth strategy (Kim, Halebian, and Finkelstein, 2011). These variables include the firm's *number of major divestitures* (log-transformed), *number of alliances* (log-transformed), research and development spending divided by total sales (*R&D ratio*, log-transformed), and the percentage of changes in the number of employees (*employee changes*).

In our analysis of international diversification, we further controlled for the international diversification level of the firm prior to the start of the focal CEO's tenure (*pre-CEO international diversification*) and the average international diversification of the focal firm's industry (*industry international diversification*). Because international diversification decisions are often influenced by the structure of the focal industry, we also controlled for the concentration ratio of the focal industry (*industry concentration ratio*), calculated as the total market share of the top four largest firms of the focal industry (Zajac and Westphal, 1996). Data related to our control variables were collected from various sources, including COMPUSTAT, Compact Disclosure, IRRC, SDC, proxy statements, and Thompson Financials.

Model Specifications

Our unit of analysis is the firm-year. Because many firms do not conduct any acquisitions or generate any international revenues in a given year, our two dependent variables have many zero values. To properly analyze such data, we adopted the two-stage Heckman sample selection model, which emphasizes that the zero values of the dependent variables not only are meaningful but also need to be analyzed differently than the non-zero values (Heckman, 1979). The first-stage regression focuses on predicting the likelihood that the dependent variable will have a non-zero value. The second-stage regression then includes the predicted non-selection hazard as an additional control variable.

In the first-stage analysis of acquisition emphasis, we used a larger sample that included all *Fortune* 500 firms and predicted whether a firm conducted any acquisitions in a given year or not. We included a number of predicting variables that have been documented in prior research to influence the likelihood of acquisitions (e.g., Haunschild, 1993). These variables included our measure of CEO narcissism, the number of acquisitions previously experienced by the CEO and by directors (Year_{*t-3*} to Year_{*t-1*}), the interactions between CEO narcissism and the number of acquisitions previously experienced by the CEO and by directors, firm characteristics (firm size, firm age, return on assets, and debt-to-equity ratio), measures of corporate governance practices (institutional ownership, CEO duality, outsider ratio, and outside directors' ownership), the total number of acquisitions in the same industry-year, the focal firm's number of prior acquisitions (Year_{*t-3*} to Year_{*t-1*}), and industry and year dummies.

In the first-stage analysis of international diversification, we similarly used a larger sample that included all *Fortune* 500 firms and predicted whether a firm generated any international revenues in a given year or not. We included a number of predicting variables that can influence the likelihood of internationalization (Hitt et al., 2006). These variables included our measure of CEO narcissism, the number of international firms (i.e., firms that generated some international revenues) tied to the CEO (Year_{*t-3*} to Year_{*t-1*}), the number of international firms tied to directors (Year_{*t-3*} to Year_{*t-1*}), the interactions between CEO narcissism and the number of international firms tied to the CEO and to directors, firm characteristics (firm size, firm age, return on assets, and debt-to-equity ratio), measures of corporate governance practices (institutional ownership, CEO duality, outsider ratio, and outside directors' ownership), the total number of international firms in the same industry-year, whether the focal firm generated international revenues in the previous three years (Year_{*t-3*} to Year_{*t-1*}), and industry and year dummies.

Based on the first-stage regressions, we calculated the non-selection hazard (or the inverse Mills ratio) and included it in our second-stage models, which we used to test our hypotheses. In the second-stage regressions, we used General Least Squares (GLS) regressions with firm-wise heteroskedasticity to analyze our data (Kariya and Kurata, 2004; Greene, 2011). In separate analyses, we also used OLS regressions with clustered and robust standard errors and found similar results.

In an additional analysis, we adopted the GLS model with firm-wise heteroskedasticity and AR1 autocorrelation to analyze all sampled firms, regardless of whether the dependent variables have zero values or not. Because both dependent variables have many zero values, we used the logarithm of their values in our analyses (Cohen et al., 2003). The findings from this analysis (available upon request) also provided support for most of our hypotheses. Specifically, H1–H4 and H6–H7 were supported in all models. In addition, H8 was supported in the context of international diversification. H5 was not supported.

RESULTS

Table 1 reports descriptive statistics and correlation coefficients for variables included in our analysis of acquisition emphasis. Table 2 presents our results from the Heckman two-stage selection model on the focal firm's acquisition emphasis.

Table 1. Descriptive Statistics for the Study of Acquisition Emphasis (N = 591)*

| Variable | Mean | S.D. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1. Acquisition emphasis | −3.13 | 1.85 | | | | | | | | | | | | |
| 2. CEO's prior experience | −4.55 | 2.15 | .09 | | | | | | | | | | | |
| 3. Directors' prior experience | −3.01 | 1.45 | .02 | .06 | | | | | | | | | | |
| 4. CEO narcissism | −.19 | 1.20 | −.05 | −.01 | .11 | | | | | | | | | |
| 5. CEO power | .00 | 3.55 | .07 | .31 | .03 | −.05 | | | | | | | | |
| 6. Status of firms tied to the CEO | .11 | 1.68 | −.03 | −.13 | .02 | .11 | −.02 | | | | | | | |
| 7. Log of total sales | 9.43 | .99 | −.23 | −.08 | −.14 | .12 | −.04 | .25 | | | | | | |
| 8. ROA | .06 | .05 | .13 | .05 | .16 | .06 | −.04 | .03 | .02 | | | | | |
| 9. Debt-to-equity ratio | 4.56 | 27.82 | .00 | .04 | .03 | −.05 | .05 | −.05 | .01 | −.14 | | | | |
| 10. Firm age | 50.65 | 20.09 | −.04 | −.02 | .01 | .18 | −.05 | .09 | .12 | .05 | .04 | | | |
| 11. CEO age | 56.49 | 5.21 | .04 | .24 | .02 | .01 | .40 | .03 | −.03 | −.02 | .04 | .04 | | |
| 12. Institutional ownership | .65 | .14 | .04 | .08 | .05 | .01 | .01 | .04 | −.23 | −.04 | −.02 | .01 | −.03 | |
| 13. Number of divestures | −.70 | 1.56 | .12 | .03 | −.10 | −.02 | .05 | .07 | .22 | −.08 | .04 | .15 | .08 | −.07 |
| 14. Number of alliances | −.01 | 1.76 | .06 | −.02 | −.02 | .04 | −.06 | .16 | .34 | .04 | −.04 | .07 | −.06 | −.06 |
| 15. R&D ratio | −5.26 | 1.81 | .03 | .03 | .13 | .16 | −.04 | .19 | −.02 | .24 | −.03 | .28 | −.03 | .04 |
| 16. Employee changes | .04 | .22 | .12 | .12 | .07 | −.01 | .04 | −.05 | .02 | −.03 | −.03 | −.10 | −.04 | .05 |
| 17. Variation of CEO's prior experience | .07 | .19 | .03 | .48 | .03 | −.01 | .14 | −.10 | −.04 | .07 | .01 | −.02 | .11 | .04 |
| 18. Variation of directors' prior experience | .22 | .36 | −.06 | .03 | .51 | .03 | −.02 | −.03 | .02 | .04 | .02 | −.08 | −.06 | .08 |
| 19. Network centrality | 28.46 | 11.04 | −.10 | .12 | .06 | .09 | .09 | .13 | .31 | −.06 | .01 | .17 | .11 | .01 |
| 20. Pre-CEO acquisition emphasis | −6.61 | 4.02 | −.01 | −.04 | −.01 | .01 | .05 | .09 | .11 | .01 | −.03 | −.02 | .00 | −.05 |
| 21. Industry acquisition emphasis | −6.08 | 2.42 | .31 | .05 | .04 | −.01 | .01 | −.06 | −.27 | .08 | −.05 | .00 | .03 | .15 |
| 22. Industry advertising intensity | .02 | .02 | −.07 | −.02 | .06 | .00 | −.03 | −.06 | .06 | .10 | −.04 | −.15 | −.13 | .09 |
| 23. Industry R&D intensity | .09 | .12 | .03 | .05 | .09 | .12 | −.07 | .03 | −.08 | .19 | −.07 | .09 | −.02 | .05 |
| 24. Industry capital intensity | .27 | .16 | −.05 | .04 | .05 | .02 | .05 | −.04 | −.02 | .04 | −.05 | .13 | .08 | −.02 |
| 25. Market uncertainty | −2.38 | 1.26 | .14 | .06 | −.08 | −.08 | .01 | −.12 | −.24 | −.15 | .06 | −.14 | .02 | .03 |
| 26. Market munificence | −2.76 | 1.49 | .03 | .06 | −.06 | −.09 | .04 | −.07 | .10 | −.15 | .02 | −.11 | −.03 | −.11 |
| Variable | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | |
| 14. Number of alliances | .28 | | | | | | | | | | | | | |
| 15. R&D ratio | .09 | .34 | | | | | | | | | | | | |
| 16. Employee changes | −.09 | −.02 | −.01 | | | | | | | | | | | |
| 17. Variation of CEO's prior experience | .06 | −.04 | −.07 | −.06 | | | | | | | | | | |
| 18. Variation of directors' prior experience | −.02 | .05 | −.04 | .00 | .05 | | | | | | | | | |
| 19. Network centrality | .11 | .12 | .06 | −.05 | .06 | .06 | | | | | | | | |
| 20. Pre-CEO acquisition emphasis | .15 | .09 | .08 | .05 | −.06 | .02 | .08 | | | | | | | |
| 21. Industry acquisition emphasis | .05 | −.02 | .12 | −.05 | .04 | −.01 | −.13 | .00 | | | | | | |
| 22. Industry advertising intensity | −.20 | −.04 | −.16 | .06 | −.03 | .06 | .04 | .04 | −.03 | | | | | |
| 23. Industry R&D intensity | .05 | .23 | .61 | .01 | −.05 | .01 | .03 | .08 | −.04 | −.10 | | | | |
| 24. Industry capital intensity | .01 | −.18 | −.23 | −.04 | .04 | −.05 | .03 | −.13 | −.09 | −.09 | −.23 | | | |
| 25. Market uncertainty | .03 | .00 | −.06 | −.05 | .07 | .04 | −.10 | −.03 | .11 | −.13 | .05 | −.36 | | |
| 26. Market munificence | .08 | .09 | −.16 | .04 | .10 | .05 | .05 | .10 | −.20 | −.04 | −.03 | −.15 | .21 | |

* Coefficients greater than .09 in absolute value are significant at $p < .05$.

Table 3 provides descriptive statistics and correlation coefficients for variables in our analysis of international diversification. Table 4 reports results from the Heckman two-stage selection model on the focal firm's international diversification.

Table 2. Heckman Selection Models of the Focal Firm's Acquisition Emphasis (N = 591)*

| Variable | (1) | (2) | (3) | (4) | (5) |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|
| CEO's prior experience | | .160*** (.050) | .139*** (.053) | .143*** (.053) | .127** (.052) |
| Directors' prior experience | | .293*** (.085) | .168* (.097) | .208** (.099) | .192* (.099) |
| CEO narcissism × CEO's prior experience | | | .036** (.014) | .035** (.015) | .029** (.014) |
| CEO narcissism × Directors' prior experience | | | -.074** (.034) | -.077** (.034) | -.088** (.035) |
| Status of firms tied to the CEO × CEO narcissism × CEO's prior experience | | | | .012 (.008) | .013** (.006) |
| Status of firms tied to the CEO × CEO narcissism × Directors' prior experience | | | | -.021* (.012) | -.023** (.011) |
| CEO power × CEO narcissism × CEO's prior experience | | | | | .007* (.004) |
| CEO power × CEO narcissism × Directors' prior experience | | | | | -.015** (.006) |
| CEO's prior experience × Directors' prior experience | | .047*** (.015) | .037** (.016) | .041** (.016) | .038** (.017) |
| CEO narcissism | .033 (.031) | .027 (.033) | .148 (.121) | .164 (.120) | .154 (.117) |
| CEO power | .041*** (.012) | .038*** (.013) | .041*** (.013) | .045*** (.013) | .041*** (.013) |
| Status of firms tied to the CEO | .083*** (.028) | .085*** (.028) | .077*** (.028) | .079** (.029) | .082*** (.028) |
| Non-selection hazard | -.349*** (.089) | -.317*** (.095) | -.360*** (.097) | -.342*** (.098) | -.266*** (.092) |
| Variation of the CEO's prior experience | .055 (.201) | -.404*** (.135) | -.179 (.136) | -.330** (.137) | -.133 (.132) |
| Variation of directors' prior experience | -.277** (.109) | -.134 (.233) | -.292** (.232) | -.075 (.239) | -.365*** (.212) |
| CEO age | -.006 (.008) | -.004 (.008) | -.004 (.009) | -.004 (.009) | .000 (.009) |
| Firm age | .002 (.002) | .002 (.002) | .003 (.002) | .004 (.002) | .003 (.002) |
| Log of total sales | -.350*** (.053) | -.331*** (.054) | -.362*** (.055) | -.355*** (.055) | -.347*** (.057) |
| ROA | 6.096*** (.677) | 6.132*** (.673) | 5.960*** (.808) | 5.973*** (.819) | 6.629*** (.861) |
| Debt-to-equity ratio | .001* (.001) | .001 (.001) | .001 (.001) | .001 (.001) | .001 (.001) |
| Institutional ownership | .484* (.263) | .626** (.286) | .468* (.284) | .536* (.286) | .544* (.298) |
| Network centrality | -.002 (.004) | -.002 (.004) | -.001 (.004) | -.002 (.004) | .000 (.004) |
| Industry advertising intensity | 1.858 (2.471) | 1.747 (2.417) | 1.698 (2.549) | 1.495 (2.604) | .501 (2.773) |
| Industry R&D intensity | .417 (.570) | .111 (.571) | .600 (.593) | .634 (.592) | .539 (.574) |
| Industry capital intensity | -1.389*** (.459) | -1.690*** (.440) | -1.791*** (.457) | -1.934*** (.477) | -1.796*** (.466) |
| Market uncertainty | .143*** (.042) | .148*** (.042) | .142*** (.042) | .136*** (.044) | .162*** (.043) |
| Market munificence | .036 (.035) | .034 (.035) | .028 (.035) | .030 (.035) | .036 (.036) |

(continued)

Table 2. (continued)

| Variable | (1) | (2) | (3) | (4) | (5) |
|-------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Pre-CEO acquisition emphasis | −.015 (.011) | −.012 (.011) | −.020* (.011) | −.018 (.011) | −.020* (.011) |
| Industry acquisition emphasis | .186*** (.018) | .183*** (.018) | .177*** (.018) | .175*** (.018) | .178*** (.018) |
| Number of divestures | .137*** (.028) | .126*** (.029) | .127*** (.029) | .128*** (.030) | .139*** (.029) |
| Number of alliances | .100*** (.027) | .091*** (.028) | .089*** (.028) | .089*** (.028) | .085*** (.027) |
| R&D ratio | −.113*** (.039) | −.109*** (.038) | −.131*** (.039) | −.136*** (.039) | −.132*** (.039) |
| Employee changes | 1.535*** (.203) | 1.407*** (.215) | 1.355*** (.230) | 1.389*** (.227) | 1.503*** (.190) |
| Industry and year dummies | yes | yes | yes | yes | yes |
| Constant | 1.451** (.668) | 2.091*** (.753) | 1.887** (.792) | 1.813** (.791) | 1.476* (.815) |
| Wald Chi-square (<i>p</i>) | .001 | .001 | .001 | .001 | .001 |

* $p < .10$; ** $p < .05$; *** $p < .01$; two-tailed tests.

* Standard errors are in parentheses.

Model 1 (in tables 2 and 4) includes control variables only. Model 2 adds CEOs' prior experience, directors' prior experience, and their interactions. Model 3 further includes the two-way interaction terms, and models 4 and 5 add the three-way interaction terms. Model 5 in tables 2 and 4 is our full model, and we interpret the results based on it.

As shown in model 5 of table 2, the results provide support for all of our hypotheses for effects on acquisition emphasis. The focal firm's acquisition emphasis is significantly and positively associated with the CEO's prior experience with acquisition emphasis on other boards, supporting hypothesis 1. The effect of the relation between other directors' prior experience and the focal firm's acquisition emphasis elaborated in hypothesis 2 is positive but only marginally significant. In addition, the coefficient of the interaction term between CEO narcissism and the CEO's prior experience is positive and significant. In contrast, the coefficient of the interaction term between CEO narcissism and directors' prior experience is negative and significant. These findings are consistent with our hypotheses 3 and 4 that more-narcissistic CEOs tend to be influenced more by their own prior experiences and less by other directors' prior experiences when deciding the focal firm's acquisition emphasis. Moreover, the positive interaction effects between CEO narcissism and the CEO's prior experience become significantly more positive the higher the status of firms tied to the CEO. In contrast, the negative interaction effects between CEO narcissism and directors' prior experience become significantly more negative the higher the status of firms tied to the CEO. These findings are consistent with hypotheses 5 and 6. The positive interaction effects between CEO narcissism and the CEO's prior experience also become more positive when the focal CEO is more powerful, although this effect is only marginally significant, providing some evidence that is consistent with hypothesis 7.

Table 3. Descriptive Statistics for the Study of International Diversification (N = 988)*

| Variable | Mean | S.D. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 1. International diversification | −1.35 | .82 | | | | | | | | | | |
| 2. CEO's prior experience | −4.96 | 3.39 | .18 | | | | | | | | | |
| 3. Directors' prior experience | −3.06 | 1.67 | .23 | .22 | | | | | | | | |
| 4. CEO narcissism | −.19 | 1.13 | .20 | .07 | .15 | | | | | | | |
| 5. CEO power | .89 | 3.06 | −.09 | −.14 | −.04 | −.05 | | | | | | |
| 6. Status of firms tied to the CEO | .12 | 1.80 | .19 | .23 | .07 | .01 | .01 | | | | | |
| 7. Log of total sales | 9.37 | .98 | −.02 | .08 | .02 | −.06 | −.02 | .29 | | | | |
| 8. ROA | .05 | .06 | .19 | .06 | .11 | .10 | −.03 | −.04 | .01 | | | |
| 9. Debt-to-equity ratio | 2.68 | 8.66 | −.05 | −.03 | .00 | −.02 | .06 | .01 | −.02 | −.13 | | |
| 10. Network centrality | 30.40 | 12.62 | .06 | .14 | .02 | −.10 | −.02 | .21 | .48 | −.09 | .03 | |
| 11. Industry advertising intensity | .01 | .02 | −.08 | −.04 | .02 | .07 | .01 | −.03 | .08 | .08 | .07 | .03 |
| 12. Industry R&D intensity | .09 | .12 | .44 | .18 | .09 | .03 | −.06 | .14 | −.08 | .17 | .00 | −.03 |
| 13. Industry capital intensity | .33 | .17 | −.35 | −.17 | −.12 | −.01 | .04 | −.12 | .06 | −.17 | −.01 | .11 |
| 14. Market uncertainty | −2.72 | 1.26 | .27 | .11 | .19 | .19 | .04 | −.14 | −.46 | .09 | .00 | −.35 |
| 15. Market munificence | −2.74 | .77 | −.19 | −.09 | −.17 | −.09 | .06 | −.13 | .06 | −.04 | .04 | .04 |
| 16. Firm age | 48.55 | 18.75 | .07 | .10 | .13 | .23 | −.05 | .04 | −.06 | .06 | .04 | −.07 |
| 17. CEO age | 65.59 | 6.51 | .01 | .14 | −.11 | −.01 | .31 | −.07 | −.16 | .03 | .00 | −.05 |
| 18. Institutional ownership | .63 | .09 | .02 | .02 | .25 | .04 | .00 | −.05 | −.17 | −.03 | −.08 | −.02 |
| 19. Pre-CEO international diversification | −3.27 | 2.74 | .78 | .10 | .21 | .19 | −.13 | .19 | −.05 | .21 | −.04 | .06 |
| 20. Industry international diversification | .27 | .22 | .65 | .21 | .22 | .08 | −.13 | .14 | −.07 | .22 | −.03 | .05 |
| 21. Industry concentration ratio | .14 | .22 | .01 | .04 | .04 | .09 | .09 | .01 | −.15 | −.05 | .02 | −.07 |
| 22. Variation of the CEO's prior experience | .08 | .09 | .12 | .65 | .18 | .04 | .10 | .21 | .07 | .07 | −.06 | .14 |
| 23. Variation of directors' prior experience | .14 | .06 | .21 | .17 | .70 | .16 | −.05 | .11 | .10 | .10 | −.03 | .03 |

| Variable | | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|--|--|------|------|------|------|------|-----|------|-----|------|-----|------|-----|
| 12. Industry R&D intensity | | −.01 | | | | | | | | | | | |
| 13. Industry capital intensity | | −.12 | −.24 | | | | | | | | | | |
| 14. Market uncertainty | | −.07 | .19 | −.12 | | | | | | | | | |
| 15. Market munificence | | .01 | .02 | .07 | .04 | | | | | | | | |
| 16. Firm age | | .00 | .03 | .07 | .15 | −.07 | | | | | | | |
| 17. CEO age | | −.12 | −.04 | .01 | .11 | .17 | .06 | | | | | | |
| 18. Institutional ownership | | .07 | −.05 | −.06 | .11 | −.07 | .05 | −.05 | | | | | |
| 19. Pre-CEO international diversification | | −.05 | .37 | −.24 | .31 | −.13 | .13 | .02 | .07 | | | | |
| 20. Industry international diversification | | −.05 | .43 | −.43 | −.41 | −.18 | .11 | .00 | .02 | .53 | | | |
| 21. Industry concentration ratio | | .05 | −.15 | −.07 | .03 | −.19 | .08 | .07 | .09 | −.02 | .02 | | |
| 22. Variation of the CEO's prior experience | | −.02 | .08 | −.08 | .07 | −.02 | .10 | .17 | .04 | .07 | .14 | −.03 | |
| 23. Variation of directors' prior experience | | .02 | .08 | −.14 | .14 | −.19 | .14 | −.11 | .21 | .26 | .25 | .08 | .17 |

* Coefficients greater than .07 in absolute value are significant at $p < .05$.

In contrast, the negative interaction effects between CEO narcissism and directors' prior experience become significantly more negative when the focal CEO is more powerful, a finding that is consistent with hypothesis 8.

Further analysis shows that, holding other moderating variables at their means and other variables constant, a one-standard-deviation increase in CEO narcissism from its mean will increase the positive association between the

Table 4. Heckman Selection Models of the Focal Firm's International Diversification (N = 988)*

| Variable | (1) | (2) | (3) | (4) | (5) |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|
| CEO's prior experience | | .093** (.038) | .079** (.040) | .078** (.039) | .079** (.039) |
| Directors' prior experience | | .088** (.043) | .118** (.048) | .127*** (.048) | .111** (.045) |
| CEO narcissism × CEO's prior experience | | | .056*** (.013) | .046*** (.014) | .044*** (.014) |
| CEO narcissism × Directors' prior experience | | | -.042* (.024) | -.041* (.023) | -.038* (.022) |
| Status of firms tied to the CEO × CEO narcissism × CEO's prior experience | | | | .025* (.014) | .029* (.016) |
| Status of firms tied to the CEO × CEO narcissism × Directors' prior experience | | | | .001 (.019) | -.008 (.020) |
| CEO power × CEO narcissism × CEO's prior experience | | | | | .013*** (.004) |
| CEO power × CEO narcissism × Directors' prior experience | | | | | -.011** (.004) |
| CEO's prior experience × Directors' prior experience | | .329*** (.113) | .244** (.120) | .228* (.117) | .220* (.114) |
| CEO narcissism | .006** (.002) | .005* (.003) | .004 (.006) | .004 (.006) | .002 (.006) |
| CEO power | .0002 (.001) | .0003 (.001) | .0003 (.001) | .0002 (.001) | .0004 (.001) |
| Status of firms tied to the CEO | -.005 (.004) | -.006 (.004) | -.010** (.004) | -.009* (.005) | -.007 (.005) |
| Non-selection hazard | .016** (.007) | .021** (.010) | .013 (.011) | .010 (.010) | .013 (.011) |
| Variation of the CEO's prior experience | .078*** (.023) | .097*** (.026) | .092*** (.027) | .087*** (.026) | .114*** (.025) |
| Variation of directors' prior experience | .016 (.027) | -.021 (.052) | -.092 (.057) | -.123** (.056) | -.067 (.053) |
| CEO age | -.001*** (.0003) | -.001*** (.0003) | -.002*** (.0003) | -.002*** (.0003) | -.002*** (.0003) |
| Firm age | -.001*** (.0002) | -.001*** (.0002) | -.001*** (.0002) | -.001*** (.0002) | -.001*** (.0002) |
| Log of total sales | .019*** (.003) | .017*** (.004) | .019*** (.004) | .017*** (.004) | .013*** (.004) |
| ROA | .393*** (.054) | .362*** (.057) | .356*** (.059) | .310*** (.058) | .349*** (.059) |
| Debt-to-equity ratio | .001 (.002) | .001 (.002) | .001 (.002) | .0004 (.001) | .001 (.002) |
| Institutional ownership | .001 (.018) | .008 (.025) | -.015 (.030) | -.021 (.029) | -.003 (.030) |
| Network centrality | .001 (.002) | .002 (.003) | .002 (.004) | .001 (.003) | .001 (.002) |
| Industry advertising intensity | -.127 (.157) | -.165 (.169) | -.236 (.170) | -.275* (.166) | -.117 (.171) |
| Industry R&D intensity | .435*** (.033) | .401*** (.036) | .343*** (.034) | .351*** (.035) | .385*** (.038) |
| Industry capital intensity | .140*** (.023) | .103*** (.027) | .045* (.024) | .053** (.024) | .098*** (.027) |
| Market uncertainty | .001 (.002) | .001 (.002) | .002 (.003) | .001 (.003) | -.001 (.003) |
| Market munificence | -.007** (.003) | -.004 (.004) | -.009** (.004) | -.006 (.004) | -.003 (.004) |

(continued)

Table 4. (continued)

| Variable | (1) | (2) | (3) | (4) | (5) |
|--|-------------------|--------------------|--------------------|--------------------|-------------------|
| Pre-CEO international diversification | .077*** (.001) | .077*** (.002) | .078*** (.002) | .079*** (.002) | .079*** (.002) |
| Industry international diversification | .472*** (.029) | .452*** (.031) | .472*** (.031) | .477*** (.031) | .448*** (.031) |
| Industry concentration ratio | -.031** (.013) | -.039*** (.015) | -.054*** (.016) | -.057*** (.016) | -.031** (.015) |
| Industry and year dummies | yes | yes | yes | yes | yes |
| Constant | .143* (.078) | .163** (.081) | .065 (.065) | .121* (.062) | .246*** (.082) |
| Wald Chi-square (<i>p</i>) | .001 | .001 | .001 | .001 | .001 |

• $p < .10$; ** $p < .05$; *** $p < .01$; two-tailed tests.

* Standard errors are in parentheses.

CEO's prior experience and the focal firm's acquisition emphasis by more than five times. In addition, the relation between other directors' prior experience and the focal firm's acquisition emphasis will change from positive to negative when CEO narcissism is about half of a standard deviation higher than its mean. This indicates that a narcissistic CEO may not only resist the influence of directors' prior experience but also try to do the opposite of what directors' experience would suggest, perhaps to demonstrate his or her superiority. These findings also highlight the importance of considering the CEO's narcissistic tendency in studies of how interlocks influence interorganizational imitation and how directors may influence strategic decisions.

As shown in model 5 of table 4, the results also provide support for all but one hypothesis about effects on international diversification. The focal firm's international diversification is significantly and positively associated with the CEO's and other directors' prior experience with international diversification decisions on other boards, providing evidence that is consistent with hypotheses 1 and 2. In addition, the interaction effects between CEO narcissism and the CEO's prior experience are positive and significant. In contrast, the interaction effects between CEO narcissism and directors' prior experience are negative but only marginally significant. These findings are consistent with hypotheses 3 and 4 that more-narcissistic CEOs tend to be influenced more by their own prior experiences and less by other directors' prior experiences when deciding the focal firm's international diversification. Moreover, the positive interaction effects between CEO narcissism and the CEO's prior experience become more positive when the status of firms tied to the CEO is higher, although this effect is only marginally significant, providing some evidence that is consistent with hypothesis 5. The negative interaction effects between CEO narcissism and directors' prior experience are not significantly moderated by the status of firms tied to the CEO. Thus hypothesis 6 was not supported for international diversification. Finally, the findings provide evidence that is consistent with hypotheses 7 and 8: the positive interaction effects between CEO narcissism and the CEO's prior experience become significantly more positive and the negative interaction effects between CEO narcissism and directors'

prior experience become significantly more negative when the CEO is more powerful.

Our findings based on the models with control variables only (i.e., model 1 of tables 2 and 4) are largely consistent with prior findings by Chatterjee and Hambrick (2007). The main effect of CEO narcissism on international diversification is positive and significant in model 1 of table 4, and the main effect of CEO narcissism on acquisition emphasis is positive but only marginally significant when a one-tailed test is used. These findings together are consistent with the argument that more-narcissistic CEOs tend to make more risky decisions (Chatterjee and Hambrick, 2007). Though the main effects of CEO narcissism became insignificant after we included our main predicting variables in the models, these results are consistent with our perspective that CEOs' narcissistic tendency and their prior experiences need to be considered together to fully understand their major strategic decisions.

An additional analysis on firms' tendency to conduct truly large acquisitions. To further evaluate the generalizability of our theory, we examined a firm's tendency to conduct truly large acquisitions—those larger than \$100 million in deal value. We expected that a firm's likelihood of conducting a truly large acquisition would be positively influenced by the CEO's prior exposure to such large acquisitions and by directors' prior exposure to such large acquisitions on other boards. In addition, we expected CEO narcissism to strengthen the effect of the CEO's prior experience but weaken the effect of directors' prior experience. We set the dependent variable to 1 if the focal firm conducted a truly large acquisition in a given year and 0 otherwise. We used logit regressions with clustered and robust standard errors to analyze the data while correcting for potential sample selection biases (see the "Model Specifications" section for details). We followed the procedure recommended by Hoetker (2007) and Wiersema and Bowen (2009) to graphically examine our results and found support for all of the above predictions (results available upon request). These findings provided further support for our theoretical predictions and demonstrated the generalizability of our theory to a range of corporate decisions. We also found a significantly positive effect of CEO narcissism on a firm's tendency to make truly large acquisitions, which is consistent with findings by Chatterjee and Hambrick (2007).

DISCUSSION

Organization theorists have long been interested in explaining why organizations are similar to each other. A very large stream of research emphasizes that similarity is often a result of interorganizational imitation. While the literature on interorganizational imitation has focused on the properties of the practice to be imitated (e.g., Briscoe and Murphy, 2012; Greve, 2012) and the characteristics of related organizations in explaining imitation patterns (see reviews by Ansari, Fiss, and Zajac, 2010; Fiss, Kennedy, and Davis, 2012), it has overlooked the notion that decision makers' personalities tend to influence how they interpret and process strategic information (Finkelstein, Hambrick, and Cannella, 2009). To start examining the implications of personality psychology for research on

interorganizational imitation, we focused on the role of CEO narcissism, a fundamental personality dimension of CEOs, in influencing imitation patterns. We explained how narcissistic CEOs learn from their own prior experience with corporate strategies at other firms and how they process information about other directors' prior experiences. We posited that narcissistic CEOs' desire to exhibit superiority and reaffirm their self-image tends to cause them to rely more on their own prior experiences and less on the prior experiences of other directors when deciding the focal firm's corporate strategies. We further suggested that these effects are strengthened by the status of other firms tied to the CEO and by the CEO's power relative to the board. Our findings from longitudinal analyses of *Fortune* 500 companies' decisions on acquisition emphasis and international diversification provided support for our theoretical expectations. Our theory and supportive findings make important contributions to research on interorganizational imitation, corporate governance, and strategic leadership.

Our study contributes to the interorganizational imitation literature by introducing theories and studies on personalities to research in this domain. Our perspective switches the focus of the imitation literature from the practice to be imitated or the involved organizations to the way executives interpret and process information about others' decisions as a function of their personalities. Our approach also generates novel and even surprising insights. For instance, existing research on imitation suggests that firms tend to imitate the decisions of others to which their boards of directors have social ties, but our theory and findings suggest that this often does not happen when the CEO is highly narcissistic: a highly narcissistic CEO may tend to do the opposite of what other directors have experienced at other firms to demonstrate his or her superiority.

This study also makes important contributions to strategic management research on the influence of directors over corporate strategy (Westphal, 1999; Hillman and Dalziel, 2003). Although an increasing stream of research has examined how boards of directors may influence firms' strategic decisions (see review by Westphal and Zajac, 2013), this literature has not considered the notion that directors' influence over strategy may depend on the CEO's personalities. In explaining how CEO narcissism reduces the influence of other directors' experience on major corporate decisions, such as an acquisition emphasis and international diversification, our study introduces theories of personalities into strategy research on board functioning and board influence. Moreover, the effect of CEO narcissism appears to be very strong. Our results suggest that many CEOs (i.e., those whose narcissism scores half of a standard deviation higher than average or more) tend to be unreceptive to the influence of other directors' prior experience. Because boards of directors are increasingly expected to play more important roles in influencing strategy, our study implies that CEO narcissism can be a major factor that weakens directors' influence. To the extent that the strategic decision-making process is more comprehensive when CEOs consider the professional advice of fellow directors (Lorsch and MacIver, 1989; Westphal, 1999), our study also indicates that narcissism is an important personality dimension of CEOs that can substantially undermine the comprehensiveness of strategic decision making (Fredrickson and Mitchell, 1984).

Our theory and findings also have important implications for strategic leadership research on managerial discretion: the extent to which top executives

influence major organizational outcomes (Hambrick and Finkelstein, 1987). A substantial body of research suggests that managerial discretion is a critical factor that predicts the degree to which top executives' unique backgrounds and experiences are reflected in major corporate decisions (Shen, 2003; Finkelstein, Hambrick, and Cannella, 2009). Prior research on managerial discretion has focused almost entirely on the determinants of discretion at the level of the nation, the industry, or the organization (Hambrick and Finkelstein, 1987; Crossland and Hambrick, 2007, 2011), and individual-level determinants of managerial discretion have rarely been studied. We theorized and found that, after controlling for various indicators of managerial discretion at the industry and organization level, CEO narcissism significantly strengthens the influence of the CEO's prior experience over the firm's acquisition emphasis and international diversification decisions. This suggests that CEO narcissism can be viewed as an individual-level determinant of managerial discretion. Moreover, we posited and found that CEO narcissism weakens the influence of other directors' prior experience over the firm's decisions, suggesting that CEO narcissism also reduces fellow directors' managerial discretion. In identifying CEO narcissism as a potential individual-level determinant of managerial discretion and demonstrating its influence over two types of major corporate strategies, our study also suggests rich opportunities for future research.

This study also has implications for the literature on interorganizational network diffusion. A substantial body of organization research shows that the interlock network facilitates the diffusion of a wide range of innovative practices and strategies, such as the multidivisional form of organization structure (Palmer, Jennings, and Zhou, 1993), poison pills and golden parachutes (Davis, 1991; Davis and Greve, 1997), and the establishment of investor relations departments (Rao and Sivakumar, 1999). Our theoretical arguments explain how CEO narcissism influences interorganizational imitation of strategic decisions, and they can also help explain the diffusion of innovative practices and strategies. In particular, the literature on interorganizational network diffusion has typically focused on the diffused practice or involved organizations in explaining diffusion patterns. It has paid little attention to how top executives' personalities may influence how they interpret information related to a diffused practice. Our theoretical arguments would suggest that, for example, more-narcissistic CEOs may be more likely to adopt the innovative practices that they experienced at other firms and less likely to adopt innovative practices that other directors experienced at other firms. More generally, our study suggests future opportunities for network diffusion scholars to build on personality psychology theories to further understand the diffusion process.

We also contribute to strategic leadership research on CEO narcissism by developing theoretical arguments on how narcissistic CEOs learn from their prior experience and how they process information from others when making strategic decisions. In contrast, prior research on CEO narcissism has primarily focused on explaining how narcissism is manifested in major strategic decisions (Chatterjee and Hambrick, 2007, 2011). We also significantly expand the domain of CEO narcissism research by introducing CEO narcissism to the large and growing literatures on interorganizational imitation and boards of directors.

Our approach of simultaneously examining top executives' personalities and social ties has important implications for the upper echelon literature. One central tenet of this literature is that organizational outcomes are reflections of top

executives' unique backgrounds and attributes, including their personalities (Finkelstein, Hambrick, and Cannella, 2009). Yet this literature has largely deemphasized how executives' social ties influence their decision making. Among studies that examine executives' social ties, the individual attributes of executives are again deemphasized (McDonald and Westphal, 2003; McDonald, Westphal, and Graebner, 2008 are notable exceptions). Given that top executives typically make major decisions under uncertainty and that individuals are especially likely to be influenced by social interactions with others under such conditions (Davis, 1991; Uzzi, 1997), a theoretical framework that integrates social network analysis and executives' individual attributes greatly enhances our understanding of executives' strategic decision-making processes. Our study highlights the important role of CEOs' interlock ties in moderating the effect of CEO narcissism on their major decisions, such as those on acquisitions emphasis and international diversification.

By addressing the implications of personality psychology for interorganizational imitation research, our study also has implications for an emerging stream of research that integrates theories of personalities with studies of social networks. Prior research suggests that individuals' tendencies to be influenced by others in their social networks can be affected by several personality dimensions, including self-monitoring (Kilduff, 1992) and openness to experience (Oh and Kilduff, 2008; Zhou et al., 2009). We expand on this stream of research by introducing narcissism into this literature. Because narcissism is a major personality dimension, our study opens the door to future work that integrates narcissism research and network studies.

Our theory and findings related to the moderating effect of CEO power further extend our study's implications. Only a limited number of studies on interorganizational imitation have considered the role of executives' power in influencing imitation decisions (Zhu, 2013). We found that CEO power interacts with CEO narcissism to influence imitation decisions, thus advancing our understanding of interorganizational imitation by considering the role of both political and psychological factors. Moreover, by examining how CEO power may strengthen a narcissistic CEO's tendency to resist directors' influence over the focal firm's major strategic decisions, we contribute to corporate governance research by integrating political and personality theories to understand the board's advisory function.

Limitations

Our study has several limitations. While prior studies and our study have reported multiple validation tests for our narcissism measure, this measure is nevertheless imprecise. For instance, while the use of first-person singular pronouns has been found to be significantly correlated to the NPI-based measure of narcissism by Raskin and Shaw (1988), it is not significantly associated with the unobtrusive indicators of narcissism used in our study. A future study that can measure narcissism by using both the NPI and the unobtrusive indicators will help us fully understand the implications of our measurement limitation.

In addition, one of our indicators of CEO narcissism, the CEO's cash compensation relative to the second-highest-paid executive, has been used as an indicator of a CEO's structural power (Finkelstein, 1992). Although the measure-validation tests reported here and by others (Chatterjee and

Hambrick, 2007, 2011; Gerstner et al., 2013; O'Reilly et al., 2013) suggest that our index is a valid measure of CEO narcissism, including the relative cash compensation indicator in our narcissism index may limit the degree to which we can clearly interpret the moderating effect of CEO power. In an additional analysis, we excluded the relative cash compensation indicator from our narcissism index and still found consistent support for our hypotheses. But given that the moderating effect of CEO power in the context of acquisition emphasis decisions is only marginally significant at $p < .10$, we would interpret our findings related to CEO power with great caution.

Our findings from the analysis of two different decision contexts have provided consistent support for most but not all of our theoretical predictions, reflecting another limitation of this study. Although the moderating effects of the status of other firms tied to the CEO were both significant in the context of acquisition emphasis, only one of them was marginally significant in the context of international diversification, providing limited support for H5 and no support for H6 in this decision context. Similarly, the main effect of other directors' prior experience on acquisition emphasis was not always highly significant and sometimes only marginally significant. In models that predict international diversification, the interaction effects between CEO narcissism and other directors' prior experience were only marginally significant. These findings indicate that although most of our theoretical predictions were well supported in different study contexts, some of them have received only mixed and limited support. Future studies conducted in other decision contexts should help us further understand the generalizability of our findings.

Another limitation of our study is that it focuses on CEO narcissism and does not directly examine the influence of other personality dimensions on interorganizational imitation. Although narcissism has been conceptually and empirically distinguished from other personality dimensions (Paulhus and Williams, 2002; Campbell and Miller, 2011), and our theoretical predictions reflect the unique effects of narcissism, our data constraints did not allow us to include a comprehensive list of controls for the potential influence of other personality dimensions. Future studies that can consider both narcissism and other personality dimensions in modeling interorganizational imitation should help us understand the relative influence of narcissism in decision making.

Directions for Future Research

We have focused on the role of CEO narcissism in influencing the imitation of acquisition emphasis and international diversification decisions of interlock network partners. Given that the interlock network is a major channel that facilitates the imitation and diffusion of a wide range of other major corporate practices and strategies (Mizruchi, 1996; Shropshire, 2010), future studies could examine how CEO narcissism influences the imitation and diffusion of other practices, such as technological innovations, strategic alliances, political campaign donations, corporate social responsibility, and corporate governance practices.

Moreover, while our study suggests that CEO narcissism reduces directors' influence over strategy, future studies could examine the conditions under which more-narcissistic CEOs would be more open to the influence of directors' prior related experience. Conceptually, a narcissistic CEO's tendency to be arrogant can cause him or her to view directors' similar experience as

redundant or not valuable. A narcissistic CEO can also disregard directors' different experience to justify his or her own prior experience. It would be interesting to understand whether a narcissistic CEO is more resistant to the influence of other directors' similar vs. different experience. In an additional analysis, we included in our models the three-way interactions among CEO narcissism, CEO's prior experience, and the difference between the CEO's and other directors' prior experience, as well as the three-way interactions among CEO narcissism, directors' prior experience, and the difference between the CEO's and other directors' prior experience. The results suggested that these three-way interaction effects were not significant in any models, and including them in our models did not change our findings. These findings may or may not hold in other study contexts, and we encourage future research to explore this interesting opportunity.

CEO narcissism may also influence the CEO's tendency to accept advice from others, such as friends and professional consultants. Given that CEOs' advice networks can significantly influence the quality of their strategic decisions (McDonald and Westphal, 2003; McDonald, Westphal, and Graebner, 2008), understanding how narcissism may influence the advice that CEOs receive seems to be an interesting direction for future research. Because narcissists typically struggle in managing their relations with others (Campbell, 1999), future studies could also examine when CEOs' narcissism may negatively influence their relations with other key constituents, such as boards of directors, the media, and security analysts.

Narcissism as a fundamental personality dimension of CEOs may also influence the structural characteristics of their social networks (Balkundi, Kilduff, and Harrison, 2011). For instance, narcissistic CEOs' pursuit of continuous attention and admiration may be associated with the centrality (or perceived centrality) of their network positions, and their tendency to be exploitative may drive them to bridge more structural holes between networks. More generally, narcissism as a fundamental personality dimension has received very little attention in the social network literature and only limited attention in the literatures of corporate governance and strategic leadership. Building and extending narcissism theory to understand the sources of network structure, the consequences of social networks, and the relationships between CEOs and key constituents of the firm offers a promising avenue for future research.

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