The Role of CEO Personality in Company Management: Examining how CEO Narcissism Influences and is Influenced by Individual and Organizational Characteristics

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List of Abbreviations

BrdPwr	Board power
CEO	Chief executive officer
CFI	Comparative-fit index
DID	Difference-in-difference
Nar	Narcissism
ResAva	Resource availability
RMSEA	Root mean square error of approximation
ROA	Return on assets
SocStatus	Social status
SRMR	Standardized root mean square residual
StrCha	Strategic change
TLI	Tucker–Lewis index
TMT	Top management teams
TSR	Total stock returns
UET	Upper echelons theory

CHAPTER 1

1 Introduction

1.1 Motivations and Main Research Questions

Researchers in strategic management and corporate governance have paid increasingly more attention to the important role of senior executives in organization outcomes (e.g., Carpenter, Geletkanycz, & Sanders, 2004; Chatterjee & Hambrick, 2007; Wales, Patel, & Lumpkin, 2013). According to upper echelons theory, an organization is a reflection of its executive characteristics (Hambrick & Mason, 1984). Senior executives inject their traits and opinions, such as demographic attributes (e.g., tenure, functional backgrounds, education, and so on) (e.g., Papadakis & Barwise, 2002), experiences (e.g., Tihanyi, Ellstrand, Daily, & Dalton, 2000), and personality (e.g., Chatterjee & Hambrick, 2007), into their leadership. These individual characteristics guide executives' perceptions, decisions, and actions in company management. Among all these executive characteristics, executives' personalities, especially that of the chief executive officer (CEO), can be expected to play a prominent role. Hambrick and Mason (1984) also pointed out that a CEO's personality traits play a more important role in explaining his or her behavior than do simple demographics. Because of CEOs' unique organizational roles, their personality characteristics are reflected in their personal preferences and behaviors, in their relationships with other group members, and in the structure, strategies, and performance of the firms they lead (Blair, Hoffman, & Helland, 2008; Chatterjee & Hambrick, 2007, 2011; Zhu & Chen, 2014a, b). In order to open the black box of upper echelons theory research, which focuses on demographics but ignores the psychological attributes that affect CEOs' behaviors, it is thus necessary to expand on this work in the domain of executive personality. Defined as the degree to which an individual has an inflated self-concept and strives to have this self-concept continuously reinforced (Judge, LePine, & Rich, 2006; Campbell & Miller, 2011), narcissism appears to be a very important personality trait in understanding executive leadership in company management (Chatterjee & Hambrick, 2007; Engelen, Neumann, & Schmidt, 2013; Zhu & Chen, 2014a). Existing research has pointed out that a high level of narcissism is a fundamental personality trait of CEOs (Judge et al., 2006). Narcissism has also been described as a trait that could cover CEO personality comprehensively and could also overlap with other important personality traits (Engelen et al., 2013). Furthermore, in an organizational context, Chatterjee and Hambrick (2007, 2011) showed that highly narcissistic CEOs' strategic decisions differ systematically from their less narcissistic counterparts (Engelen et al., 2013). Thus, the exploration of a CEO's narcissism makes possible a profound analysis of the influences of a CEO's personality in company management.

The last several years have witnessed a surge of interest in how narcissistic CEOs affect the organizations they lead (e.g., Engelen et al., 2013; Rosenthal & Pittinsky, 2006). Research has suggested that highly narcissistic CEOs, typically characterized by dominance, self-importance, a sense of entitlement, arrogance, and low empathy, tend to manage firms very differently from CEOs with a relatively low narcissistic tendency (Zhu & Chen, 2014a, b). How narcissistic CEOs act differently in company management could first be reflected in their strategic decisions. For example, narcissistic CEOs have shown to be positively associated with dynamism and grandiosity of company strategies, as well as the number and size of acquisitions that the firm made (Chatterjee & Hambrick, 2007, 2011). Narcissistic CEOs tend to be relatively aggressive in their adoption of technological discontinuities (Gerstner, König, Enders, & Hambrick, 2013). Thus, highly narcissistic CEOs tend to favor bold and risky actions driven by their strong desire for attention and admiration (e.g., Chatterjee & Hambrick, 2007, 2011; Engelen et al., 2013; Zhu & Chen, 2014a, b). In contrast, a less narcissistic CEO might be inclined to emphasize stability (Zhu & Chen, 2014a, b) and dwell on the inherent riskiness of a new technology and strategy (Chandy & Tellis, 1998; Gilbert, 2005). Moreover, how narcissistic CEOs lead companies differently could also be reflected in how they deal with the relationship with other organization members. Narcissistic leaders have been shown to be more likely to devalue others, react aggressively to criticism (Paulhus & Williams, 2002), inhibit equitable exchanges with staff (Nevicka, De Hoogh, Van Vianen, Beersma, & McIlwain, 2011), and thus to have unhappy employees (Blair, Hoffman, & Helland, 2008). Existing research has also pointed out that narcissistic CEOs are less likely to seek or consider advice from boards and they try to reduce the board's influences on company strategy (Zhu & Chen, 2014a, b). Therefore, being boastful and self-centered, narcissistic CEOs may lack the ability to establish long-term effective relationships with other organization members. Previous studies have strived to understand how narcissism influences CEOs' decisions and behaviors. Through these studies, questions about the effectiveness of narcissistic CEOs were also examined. Narcissism is usually considered an undesirable CEO trait when it comes to firm performance; however, existing research has not resulted in consistent findings about this issue (see review from Reina, Zhang, & Peterson, 2014). Therefore, some researchers have been trying to assess the critical moderators or mediators, such as organizational identification (Peterson, Galvin, & Lange, 2012), leadership (Peterson et al, 2012; Resick et al., 2009), audience engagement (Gerstner et al., 2013), entrepreneurial orientation (Wales, Patel, & Lumpkin, 2013), and CEO power (Zhu & Chen, 2014a), which could influence a narcissistic CEO's decision making and firm effectiveness. As Campbell, Hoffman, Campbell, and Marchisio (2011) stated, key moderators need to be assessed to understand the true effects of CEO narcissism.

Combining upper echelons theory with other theory lenses, this dissertation consists of three independent but interlinked studies that add further understanding of the important role of executive traits in company management. The first focus of this dissertation is to further explore the role of narcissism in influencing a CEO's decisions and behaviors in corporate governance. The second focus is to figure out whether and how individual and organizational factors influence a CEO's narcissistic tendency or his/her decision making process. At the same time, this dissertation also tries to investigate the relationship between CEO narcissism and firm performance. The three targets are integrated into Chapters 2-4. The study in Chapter 2, for example, first establishes the link between CEO narcissism and a CEO's social status. Social status is an individual's characteristic indicating that individual's social affiliations or their social ranking (Finkelstein, 1992; Westphal & Khanna, 2003). The results from a cross-lagged regression model show that CEO narcissism positively impacts a CEO's social status, which indicates that a highly narcissistic CEO tends to engage in publicly visible activities to continuously reinforce their positive self-concept. Furthermore, as shown in many studies, individuals' personality traits will continue to develop due to their experiences from careers, family, and social roles throughout their adult life (Lüdtke, Roberts, Trautwein, & Nagy, 2011; Roberts et al., 2006). Thus, to enrich the understanding of the influence of social activities on personality changes, Chapter 2 also examines the reciprocal impact of a CEO's social status on CEO narcissism. The findings about the positive effect of a CEO's social status on CEO narcissism affirm the functions of social roles in shaping how personality changes. In addition to exploring the casual relationships between a CEO's social status and CEO narcissism, we also try to disentangle the causal relationships between CEO characteristics (CEO narcissism and a CEO's social status) and firm performance. The empirical results from Chapter 2 indicate a reciprocal influence between a CEO's social status and CEO narcissism, which not only adds to existing evidence on the important role of narcissism in a CEO's behavior, but also verifies that CEO narcissism could also be influenced by their social roles. As previously mentioned, how narcissistic CEOs deal with their relationships with other organization members also reflects how they manage firms. Thus, Chapter 3 shifts attention to CEO-board relationships. Previous studies have pointed out there is usually a conflict between CEOs and boards of directors because of the board's advice, counsel, and monitoring functions (Hillman & Dalziel, 2003; Westphal, 1999). To further understand CEO-board relationships, Chapter 3 combines agency, power institutionalization, and power circulation theories, first exploring the predictive role of board power on hiring narcissistic CEOs and then uncovering the effect of CEO narcissism on board power following a CEO's appointment. Our results suggest that board power is negatively associated with the selection of a narcissistic CEO, and CEO narcissism, in turn, has a negative influence on board power. These findings suggest that a board's power plays an important role in deciding whether a company will have a narcissistic CEO, and will also provide further evidence for the opinion that highly narcissistic CEOs usually cannot establish long-term effective relationships with other organization members due to their lack of empathy and heightened level of arrogance and entitlement (Lubit, 2002; Resick et al., 2009). Chapter 3 further affirms that CEO narcissism is positively associated with strategic change, and also testifies to the moderated mediation effect of CEO narcissism on firm performance. Thus, Chapter 3 not only adds insights into how narcissistic CEOs act differently by exploring the CEO-board relationship, but also complements existing research that focuses on the effectiveness of CEO narcissism in corporate governance. To further understand the roles of CEO narcissism in company management, Chapter 4 explores the role of narcissism in CEOs' decision making by designing an online experiment on Amazon Mechanical Turk (MTurk). Chapter 4 focuses on the effects of CEO narcissism on risk taking and director selection, and also investigates whether firm financial performance moderates these relationships. The empirical results provide evidence for the positive relationship between narcissism and risk taking and also show that narcissistic CEOs' decisions and behaviors could not be significantly influenced by a firm's financial performance. All in all, the dissertation enriches our understanding of the importance of narcissism in explaining a CEO's organizational behaviors, complements the research on the relationship between CEO narcissism and firm performance, and also adds insight into whether and how CEOs' narcissistic tendency or decisions could be influenced by individual (a CEO's social status and board power) and organizational characteristics (firm performance).

1.2 Empirical Approach

1.2.1 Data Resources

Different databases usually have different data types, data structure, and data availability, and there is no one database that can provide a universal coverage of all available data. Thus, it is necessary to combine various data sources to construct a comprehensive dataset. In individual executive traits and corporate governance research, there are two data and information sources are commonly used: public (e.g., Chatterjee & Hambrick, 2007) and private (e.g., Wales, Patel, & Lumpkin, 2013). The widely used public databases include Compustat ExecuComp and RiskMetrics/IRRC. ExecuComp provides compensation data for U.S. directors and executives for companies within the S&P 1500. RiskMetrics/IRRC provides non-financial data on individual board directors (e.g., name, age, board affiliation, shares owned, etc.) for companies within the S&P 1500, and also provides data on whether companies had undertaken certain governance tactics in a specific year. Private data usually can be obtained through executive questionnaires and interviews (e.g., Peterson, Galvin, & Lange, 2012) or through experiments conducted among students (e.g., Judge, LePine, & Rich, 2006). Due to the difficulty in achieving direct access to top executives within large companies, and those executives' reluctance to answer questions about their psychological traits (Carpenter, Geletkanycz, & Sanders, 2004), most of the research on individual executive traits tends to use public data. This study incorporates both public data from different sources and private data from an online experiment to construct a powerful dataset.

Both Chapter 2 and Chapter 3 draw upon the U.S. companies listed on the S&P Composite 1500. To disentangle the causal relationships among CEO social status, CEO narcissism, and firm performance, Chapter 2 collects data from various sources, including Compustat ExecuComp, Marquis' Who's Who, Factiva, proxy statements, company annual reports, etc. The design of the multiple measurement points of multiple factors makes it less possible to gather data from only one database. For example, Compustat ExecuComp makes it possible to observe executives and companies' financial changes over time. Factiva includes company press releases for different years, offering the opportunity to observe changes in the number of executives' names on press releases over time. As we discovered, none of these sources can offer full coverage of all available data. It is thus necessary to combine different reliable data sources to observe individual executives' trait changes. Similarly, Chapter 3 also combines various data sources, including Compustat, RiskMetrics, Factiva, proxy statements, annual reports, etc. Chapter 3 applies a lagged structure design over a period of five years to explore the interrelations between board power and CEO narcissism, and their effects on a firm's strategic changes. To meet the design of different measurement points for different factors, different data sources are also needed. These combined public data sources make our research objectives fulfilled and also make the results more generalizable, as executives' characteristics and firms' financials are objectively evaluated rather than self-rated, because it is not easy to contact leaders within large companies and it is even harder to trace a leader's trait changes over time. Therefore, management research, especially those focusing on top managers, should pay more attention to public data.

As mentioned, another important data source in executive trait research is private data. One approach to obtain the data is to run experiments with CEOs through questionnaires or interviews (e.g., Peterson et al., 2012; Wales et al., 2013). This approach usually has a low response rate, especially when asking sensitive questions (Wales et al., 2013). Thus, some research has been conducted in laboratory settings or online (e.g., Judge et al., 2006). Existing research has pointed out that the online experiment on MTurk provides high quality data with high alphas and test-retest reliabilities (Buhrmester, Kwang, & Gosling, 2011; Paolacci, Chandler, & Ipeirotis, 2011). For analysis of the effects of CEO narcissism on risk taking and the power of new directors, Chapter 4 conducts an online experiment on MTurk. The online experiment obtains high quality data to testify to the relationship between narcissism and risk taking as proposed in the study. Consequently, to have a comprehensive understanding of the important role of executive personality in corporate governance, an experiment setting is also necessary.

1.2.2 Analytical Approach

Not only do we try to combine different data resources to build a comprehensive and powerful dataset, but we also try to use appropriate statistical approaches to test our hypotheses. Recent studies on individual executive traits and corporate governance tend to employ a longitudinal design (e.g., Zhu & Chen, 2014a, b), which enables us to detect developments or changes in executive traits and organizational characteristics, and can also add to our understanding of the causal relationships between executive traits and the key constituents of the firm. Since a longitudinal design involves repeated observations of the same subjects over a period of time, it increases the accuracy of change observations, and thus offers us a good opportunity to disentangle the causality in the applied setting (Taris & Kompier, 2003). Therefore, besides the online experiment conducted in Chapter 4, both Chapters 2 and 3 apply a longitudinal design. Chapter 2, for example, employs a longitudinal design with two measurement points for social status, narcissism, and firm performance to track their changes and disentangle their causal relationships. With a five-year period of longitudinal design, Chapter 3 explores the interrelationship between board power and CEO narcissism, and their association with organizational outcomes.

Based on the longitudinal research design, Chapter 2 utilizes multiple common factor crossed-lagged regression models within the framework of a structure equation model (SEM), and the difference-in-differences (DID) model to test the hypothesized relationships. The cross-lagged, structural equation modeling technique takes into account error correction, factorial invariance, and correlated disturbances, and is widely used to examine causal associations in data derived from longitudinal research designs (McDonald, 1985; McArdle, 2009). The cross-lagged model used in Chapter 2 not only provides evidence on the direction of causality between CEO social status and CEO narcissism, but also estimates the strength of the effects of each variable on the other. As a complementary analysis, the DID model is also used in Chapter 2 to analyze casual relations. The DID approach is one of the most widely used study designs in finding the changes in policy variables (Hausman & Kuersteiner, 2008; Lee & Kang, 2006). It is used to examine treatment effects by comparing the pre- and post-treatment differences in the outcome of a treatment and a control group (Lee & Kang, 2006). The basic set up of the DID model is elaborated in Chapter 2. Both the cross-lagged and DID approaches can capture the true developments or changes in the characteristics of the target objects at both the individual and the organizational level. The results from the cross-lagged model and DID in Chapter 3 are consistent, and they all indicate a reciprocal influence between a CEO's social status and CEO narcissism. Different from Chapter 2, both Chapters 3 and 4 apply multiple regression models. Multiple regression analysis is a basic statistical technique for examining the relationship between one outcome variable/dependent variables and one or more independent variables/predictors (e.g., Cohen

& Cohen, 1983), and it is widely used in psychology and management research. Building on multiple regression models, Chapter 3 explores the important role of narcissism in the dynamic relationship between CEOs and boards of directors. Chapter 4 investigates narcissistic CEOs' decision making processes, particularly regarding their decisions on company strategy and director selection. The combination of crossed-lagged regression, DID and multiple regression models in the dissertation provide a rigorous analysis of the role of executive personality in corporate governance.

1.3 Overview of the Chapters

With different data sources and multiple analytical approaches, this dissertation provides a variety of perspectives to enrich the understanding of how CEO narcissism influences and is influenced by individual and organizational characteristics in company management. Based on upper echelons theory and personality theories, Chapter 2 combines multiple data sources from public databases and employs a longitudinal design with SEM and DID approaches to explore the casual relations between a CEO's social status, CEO narcissism, and firm performance. Drawing on agency, power institutionalization, and power circulation theories, Chapter 3 also gathers data from public databases and applies a longitudinal design, but shifts focus to the CEO-board relationship. Chapter 4 provides methodological variations by conducting an online experiment to investigate narcissistic CEOs' risk-taking decisions and the power of new directors. Chapters 2-4 are separate studies that were conducted in collaboration with Torsten Biemann. Chapter 5 then provides an overall summary of all the research results and elaborates on the theoretical and practical implications, limitations, and future research.

CHAPTER 2

2 CEO's Social Status, Narcissism, and Firm Performance: A Cross-lagged Analysis of Causal Relations

2.1 Introduction

Narcissism is characterized by an exaggerated self-concept, self-admiration, and inflated self-view (Morf & Rhodewalt, 2001; Resick et al., 2009). It is often associated with leadership positions (Brunell et al., 2008). As such, previous leadership research has investigated the consequences of high narcissism in leaders by exploring the "dark side" and "bright side" of narcissistic leadership (Campbell et al., 2011) or its impact on strategic behavior and performance (e.g., Chatterjee & Hambrick, 2007; Resick et al., 2009). Accordingly, the role of CEOs' narcissism has been of interest in strategic management research. For example, Chatterjee and Hambrick (2007) found CEO narcissism to be positively associated with higher variability in firm performance. Wales et al. (2013) observed that narcissistic CEOs indirectly influence firm performance variance through firm level entrepreneurial orientation. Although prior research has made some progress in understanding the importance of top managers' narcissism for firm performance, the reversed effect of firm performance on narcissism remains rather unexplored. Recent research in personnel psychology pronounced the plasticity of individuals' personality throughout their adult life and influencing factors on these personality changes (Lüdtke et al., 2011; Wille & De Fruyt, 2014; Woods et al., 2013). Although some authors argued that contextual conditions might affect CEOs' attitudes and personality (e.g., Chatterjee & Hambrick, 2007), the prevailing paradigm in strategic management research expects an effect of CEO characteristics on firm performance, and not vice versa. However, firm performance provides CEOs with feedback on their own abilities (Chatterjee & Hambrick, 2011), which might, in turn, affect their tendency to demonstrate narcissistic behaviors. This reciprocal relation between CEO narcissism and firm performance has not been studied explicitly before, but it is of great importance to understand the direction of causality. Otherwise, strategy researchers risk deriving wrong causal conclusions from their research. Accordingly, our study looks at both the predictive role of CEO narcissism for firm performance and the impact of firm performance on CEO narcissism.

We further aim to explore the role of social status in this relationship. Actions of CEOs are embedded in a socially constructed system (Hayward et al., 2004; Khurana, 2002). Since CEOs make decisions under high levels of uncertainty, they are likely to be influenced by social interactions with others (Uzzi, 1997). Existing research has pointed out that individual behavior is influenced by their social status (Coleman, 1994; Westphal & Khanna, 2003). We argue that social status, defined as relative position in a socially constructed hierarchy (Weber, 1968), is a factor that affects both narcissism and firm performance. There is an ongoing interest in CEOs' social status and its impact on other executives and directors. For example, Allen (1974) showed that high-status CEOs have more influence on board discussions about director candidates. Belliveau et al. (1996) and Finkelstein et al. (2008) found that high-status CEOs significantly affect the compensation of executives and directors. While the impact of CEO's social status on other executives and directors is well-understood (Belliveau et al., 1996; Finkelstein et al., 2008), there is little theory or research that considers whether a CEO's social status influences their attitudes or personality. On the one hand, high-status CEOs tend to overestimate their strategic judgment and leadership capability (Park et al., 2011) and, thus, status might be positively related to CEO narcissism. On the other hand, narcissistic leaders tend to try ascending the ranks even if they have reached the pinnacle of entrenched power (Glad, 2002). Thus, in addition to the predictive role of social status on CEO narcissism, we also suggest that CEO narcissism affects CEOs’ social status. Furthermore, research in strategic management and organizational theory has generated insights how CEO’s characteristics and personality influence organizational outcomes (e.g., Chatterjee & Hambrick, 2007; Resick et al., 2009), yet little attention was devoted on whether CEO’s social status affect strategic behavior and performance. We suggest that high social status is negatively associated with firm performance, as it induces overconfidence and hubris. In turn, prior firm performance might help CEOs to improve their social status, for example by getting more offers for board appointments. In sum, this again indicates a reciprocal effect.

The objective of this study is to disentangle the causal relationships between a CEO’s social status, narcissism, and firm performance. In order to understand these causal relations, we employ a longitudinal design with several measurement points for social status, narcissism, and firm performance. The first part of our theoretical framework elaborates on the suggested relationships between a CEO’s social status and CEO narcissism. We suggest that CEOs with higher social status tend to be more narcissistic. High narcissism, in turn, is suggested to have a positive impact on social status. We then hypothesize on a negative effect of CEO narcissism and high social status on firm performance. Furthermore, we develop hypotheses on the influence of firm performance on a CEO’s social status and narcissism.

2.2 Theoretical Background and Hypotheses

2.2.1 The Relationship between a CEO’s Social Status and CEO Narcissism

Effect of CEO Narcissism on a CEO’s Social Status. Narcissists are primarily concerned with their own preferences and have a positive and grandiose self-concept and self-regulating strategies to inflate this concept (Morf & Rhodewalt, 2001). Previous research identified a number of important characteristics of highly narcissistic individuals: inflated sense of self value and self-importance, perception of entitlement, arrogance, want to be the center of attention, self-absorption and self-admiration (Ames, Rose, & Anderson, 2006; Emmons, 1987; Morf & Rhodewalt, 2001; Resick et al., 2009). These characteristics of narcissism can be linked to social status.

Social status refers to individuals' social affiliations or their social ranking, such as the outside directorships in profit firms and non-profit organizations, as well as educational background (Finkelstein, 1992; Park et al., 2011; Westphal & Khanna, 2003). A CEO with a higher social status is thus someone who might have graduated from a prestigious university and has more board appointments at large companies and non-profit organizations.

Narcissistic CEOs tend to obtain external self-affirmation through social interaction, because they have an inflated level of self-esteem (Wales et al., 2013). One way to get such affirmation is to be appointed to more outside directorships, thereby enhancing their social status. Indeed, previous research has indicated that the qualities of narcissistic individuals often help them to emerge as a leader (Brunel et al., 2008), and they keep pursuing leadership positions to fulfill their need for power and superiority (Campbell & Campbell, 2009; Rosenthal & Pittinsky, 2006). Because of their desire for leadership, they will seek out positions in profit and non-profit organizations, which are important indicators of social status (Finkelstein, 1992).

Narcissistic individuals have ambitions to obtain admirable achievements (Maccoby, 2000). Higher social status can provide narcissistic CEOs with more power and influence, which can facilitate the CEO's fulfillment of their personal ambitions. Furthermore, narcissistic leaders tend to overestimate their self-worth and are driven by a strong desire to enhance their self-image via engaging in activities and conversations (Judge, Piccolo, & Kosalka, 2009). Highly narcissistic CEOs also try to draw attention to their vision and leadership (Judge et al., 2009). Thus, by enhancing their social status, narcissistic CEOs can meet their desire for others' affirmation and enhance their personal prestige.

Compared to others, narcissistic leaders tend to display different behaviors to achieve their goals (Campbell et al., 2011). Some narcissistic leaders have strong social skills (Khoo & Burch, 2008), tend to change oriented goals, facilitate work group creativity (O'Connor, Mumford, Clifton, Gessner et al., 1995), and take high risks to pursue their goals (Foster & Trimm, 2008). They further tend to overvalue the potential gains from risky behavior (Foster & Trimm, 2008) and have lower quality relationships (Blair, Hoffman, & Helland, 2008). For narcissistic CEOs, enhancing their social status is one of their behaviors to show off their leadership abilities and talents. High social status can signal the CEO's quality (Fama & Jensen, 1983) and proxy for their reputational capital (Kaplan & Reishus, 1990). Thus, narcissistic CEOs might tend to illustrate specific behaviors to demonstrate their talent and grand vision, such as choosing to become outside directors.

Hypothesis 1.1. (H1.1.): CEO narcissism has a positive impact on a CEO's social status.

Effect of a CEO's Social Status on CEO Narcissism. There is an increasing consensus that personality traits will continue to develop, because of individual's experiences from careers, family, and social roles throughout their adult life (Lüdtke, Roberts, Trautwein, & Nagy, 2011; Roberts et al., 2006). Helson, Kwan, John, and Jones (2002) showed that personality changes, such as people becoming more agreeable, conscientious, and emotionally stable, happen because of people's social living, such as building their own family and career. Roberts, Walton, and Viechtbauer (2006) argued that personality traits can change across a life course. They illustrated the tendencies of changes in every dimension of adults' Big Five which are openness, conscientiousness, extraversion, agreeableness, and neuroticism by using a meta-analysis of longitudinal studies. The primarily context driven mechanism for the change in traits is Social Investment Principle which states that investing in social institution, such as commit to social role(e.g., work, marriage, family, community), is a driving mechanism of personality development (Lodi-Smithe & Roberts, 2007; Roberts, Wood, & Smith, 2005). More specifically, personality change is reflecting their expectations when people are engaging in a social role (Lodi-Smithe & Roberts, 2007; Woods, Lievens, de Fruyt, & Wille, 2013).

A high social status will increase a CEO's self-enhancement, because high-status CEOs in the corporate elite tend to receive more flattery and opinion conformity from others (Park et al., 2011). Self-enhancement is defined as the overestimation of one's abilities (Kwan, John, Robins, & Kuang, 2008; Robins & Beer, 2001). It has been shown that self-enhancement is an important characteristic of narcissism (Sedikides, 1993; Sedikides & Strube, 1997), and that self-enhancement is a primary motivation for narcissistic behaviors (Campbell et al., 2011).

Leaders with a high level of self-enhancement focus on their own happiness and success (Fu, Tsui, Liu, & Li, 2010). Note that there is a positive relationship between a CEO's social status and self-enhancement. CEOs with a relatively high social status will pursue their own success and dominance over others. The high-status CEOs sit on more outside directorships, which offer them more opportunities to receive social praise. For CEOs, social praise possesses various forms. Flattery and applause tend to make the CEOs overestimate their talent (Koestner, Zuckerman, & Koestner, 1987). Furthermore, media outlets tend to overemphasize the role of CEOs. Hence, we think that the high-status CEOs have an increased likelihood of thinking that they are grandiose and predominant. As such, they might overestimate their performance and leadership potential after receiving social praise. This will create an inflated sense of self-value and self-importance in the CEOs, both of which are important characteristics of narcissistic individuals (Morf & Rhodewalt, 2001). Therefore, high-status CEOs might become more narcissistic after getting social praise.

Hypothesis 1.2. (H1.2.): A CEO's social status has a positive impact on CEO narcissism.

2.2.2 The Relationship between a CEO's Social Status, CEO Narcissism and Firm Performance

Effect of a CEO's Social Status on Firm Performance. High-status CEOs tend to be self-enhancing (Park et al., 2011) and maintain self-enhancing cognitions, overconfidence in their strategic decisions, and focus on their own success (Fu et al., 2010). Thereby, they might be less likely to recognize decision problems and be more likely to overestimate their ability to resolve the problems resulting from incorrect decisions. Ultimately, this will constrain the firm's performance. In addition, CEOs with a high social status tend to have a disproportionate influence on the discussions about director candidates (Davis, Yoo, & Baker, 2003; Seidel & Westphal, 2004; Useem, 1984) and for the compensation of executives and directors (Belliveau et al., 1996; Finkelstein et al., 2008). The disproportionate influence on the discussions about director candidates may lead the company to have less qualified directors, which might have a negative impact on firm performance. Furthermore, executives' compensation arrangement could influence their behavior through their cooperation among TMT members (Hambrick, 1995), and willingness to cooperate across business units (Kim & Mauborgne, 1991). Therefore, the disproportionate compensation for executives might influence the way they process information, which in turn increases the chances of a series of negative outcomes.

Given that high-status CEOs are, by definition, more likely to hold board appointments or top positions at other companies (Finkelstein, 1992; Westphal & Khanna, 2003), they will have more outside options and their career might not be as dependent on their current company. More outside options might dissipate their time and attention, thereby undermining their ability to lead the company. Furthermore, Core, Holthausen, and Larcker (1999) and Shivdasani and Yermack (1999) suggest that directors who serve on multiple boards can become overcommitted, which makes them unable to effectively monitor company effectiveness.

Hypothesis 2.1 (H2.1): A CEO's social status has a negative impact on firm performance.

Effect of CEO Narcissism on Firm Performance. Many studies have made efforts to elaborate on the influence of narcissism on firm performance. Resick et al. (2009) found that narcissism has no significant relationship with team performance, while Chatterjee and Hambrick (2007) illustrated that CEO narcissism is positively associated with extreme and varying company performance. Furthermore, Wales et al. (2013) observed that entrepreneurial orientation partially explains why narcissistic CEOs led the companies to experience extreme gains or losses. Thus, existing research shows a mixed picture of the influence of CEO narcissism on firm performance. Narcissistic CEOs have inflated self-views and might overestimate the likelihood of the success of strategic initiatives. In addition, by influencing other directors' decisions, the narcissistic CEO might distort strategic choices.

In order to pursue their high goals, narcissistic CEOs might take advantage of others (Khoo & Burch, 2008) and may have lower quality relationships with incumbent managers (Blair et al., 2008). With the disposition of higher levels of arrogance and self-admiration, narcissistic CEOs seem unlikely to communicate with staff equitably (Resick et al., 2009). In addition, since being boastful, narcissistic CEOs are not encouraging the staff to propose comments or suggestions on their decisions (Bass, 1998). Disharmonic relationships between the CEO and the company members could have a long and negative influence on firm performance. Furthermore, narcissistic CEOs do not put their energy into building a positive organizational culture (Hogan, Raskin, & Fazzini, 1990; Lubit, 2002). Instead, they try their best to enhance their public image (Bass & Steidlmeier, 1999; Conger, 1990). Moreover, narcissistic CEOs tend to favor highly dynamic strategies (Chatterjee & Hambrick, 2007), which mean they might carry considerable long-term costs to make themselves the center of attention (Resick et al., 2009). Disharmonic relationships with company members, neglect of organizational culture, and favoring highly dynamic strategies will have a negative influence on firm performance.

The behavior of narcissistic CEOs might thus create problems for their organizations. Feelings of grandiosity, self-centered behaviors, and a strong desire for power that narcissistic CEOs typically illustrate could damage the performance of their companies (Lubit, 2002).

Hypothesis 2.2. (H2.2.): CEO narcissism has a negative impact on firm performance.

Effect of Firm Performance on CEO Narcissism and a CEO's Social Status. In Hypotheses 2.1.and 2.2., we suggested an impact of CEO characteristics on firm outcomes. However, it can be argued that work outcomes might also impact individuals' characteristics. For example, Woods et al. (2013) presented studies about the reciprocal influences of personality on work characteristics. Not only does personality determine an individual's choice of work settings, the work itself can also impact an individual's personality. We, therefore, suggest the effects of firm performance on a CEO's narcissism and their social status.

Recent success influences one's sense of efficacy (Schmalensee, 1976). For CEOs, firm performance conveys meaning about their leadership ability and the usefulness of their strategy (Chatterjee & Hambrick, 2011). Good firm performance helps CEOs to win attention, applause, and get admired, which might increase their self-esteem and satisfaction

(Sedikides et al., 2004). When CEOs face poor performance, this will restrict their behaviors (Staw, Sandelands, and Dutton, 1981) and decrease their self-confidence. CEOs tend to attribute high performance to their own abilities (Staw, McKechnie, & Puffer, 1983). Recent good performance will make CEOs think that their competence and superiority were demonstrated, increasing their sense of accomplishment (Donaldson & Lorsch, 1985; Schimmer & Braue, 2012). This superiority, or arrogance, is an important factor of narcissism (Emmons, 1987). Thus, firm performance serves as a signal for others, as well as for the CEOs themselves, of how capable they are. CEOs in companies with a good performance will show more overconfidence and might have the tendency to be narcissistic.

Hypothesis 2.3. (H2.3.): Firm performance has a positive impact on CEO narcissism.

Successful CEOs will develop an increasing belief in their ability to have control over firm outcomes. This might lead them to believe that other organizations could also benefit from their talents. Furthermore, firm success can generate additional offers of board employment (Ferris et al., 2003), as success in their own company signals high leadership capabilities. CEOs of successful firms will, therefore, not only desire to increase their influence by joining boards of other organizations, they will also get more offers. On the contrary, poor performance will reduce a CEO's confidence in their decisions and lead the CEOs to put their energy into improving the performance (McDonald & Westphal, 2003). Thus, unsuccessful CEOs will be less likely to hold outside positions, because more outside appointments will attract their attention and undermine their ability to lead the company.

Hypothesis 2.4. (H2.4.): Firm performance has a positive impact on a CEO's social status.

2.3 Methods

2.3.1 Sample and Data Collection

This study drew a sample from the S&P 1500. We measured CEO narcissism, social status, and firm performance at two points in time, 2006 and 2010. We based our decision to employ a time gap of four years on previous research on personality changes, which applied similar longitudinal designs, because personality changes have shown to need longer periods to become observable (Specht, Egloff, & Schmukle, 2011; Wille & De Fruyt, 2014). CEOs were only included if they started at the S&P 1500 company before 2006 and were still working for the same company as CEO in 2010. Lastly, companies were not included if they were not listed on COMPUSTAT or failed to file proxy statement with the US Securities and Exchange Commission. The final sample consists of 446 CEOs from 446 U.S. firms.

2.3.2 Measures

CEO's Social Status. We used three indicators to measure a CEO's social status (e.g., Finkelstein, 1992). The first indicator was the number of corporate board appointments held (A1).We only included boards of non-affiliated companies (Finkelstein, 1992); the number of board appointments was collected from company proxy statements. The second indicator was the number of non-profit board appointments held (A2). Both Finkelstein (1992) and Park et al. (2011) illustrated that non-profit board appointments were an indicator of social status. Useem (1979) pointed out that work for the community could reflect a manager's membership of the elite. Following Finkelstein's (1992) suggestion, CEOs had to be part of the top decision-making or consultative arm in the non-profit organizations and the simple membership in the organizations was not counted. We obtained data on the number of non-profit board appointments from company proxy statements. The third indicator was educational background (A3), as it is believed to be an important indicator of social status

(Finkelstein, 1992; Park et al., 2011; Westphal & Khanna, 2003). We measured elite education using Finkelstein's (1992) method and their listing of 29 elite educational institutions. For this variable, values ranged from 0 to 3: 0, no formal higher education;1, undergraduate and graduate schools that were non-elite; 2, one of the undergraduate or graduate schools was elite; and 3, both undergraduate and graduate schools were elite. We obtained data on a CEO's educational background from Marquis who's who and company proxy statements.

In our sample, the exploratory factor analysis showed that all three indicators loaded on a single factor (with loadings above .60). Eigenvalues were greater than one in both 2006 and 2010, explaining 45.93 and 47.37 percent of the variance in 2006 and 2010, respectively. Moreover, the results from the confirmatory factor analysis (CFA) conducted with AMOS 21.0 indicated the three factor model was saturated.

CEO Narcissism. We used Chatterjee and Hambrick's (2011) unobtrusive measures of narcissism. The first unobtrusive measure was the prominence of the CEO's photograph on the company's annual report (B1). For this variable, values ranged from 1-4: 1, there is no photo of the CEO on the annual report or there is no annual report in the measurement year; 2, the CEO was photographed with other executives; 3, the CEO took the photo alone and the photo occupied less than a half page; and 4, the CEO took the photo alone and the photo occupied more than half a page. We obtained annual reports from company web sites and the EDGAR database to assist with this variable. The second unobtrusive measure was CEO prominence in company press releases (B2). This variable was the number of times the CEO's name appeared on the press releases divided by the total number of the press releases. We obtained the press releases from Factiva. The third unobtrusive measure was the relative cash pay measure (B3).This variable is the CEO's cash pay (salary and bonus) divided by the second-highest-paid executive in the company. As a fourth unobtrusive measure, we used the relative non-cash pay (B4). This variable is the CEO's non-cash pay (CEO's income declared as "Other Compensation") divided by the second-highest-paid executive in the company. We obtained compensation data from Execucomp.

For the exploratory factor analysis, our results revealed that all four indicators loaded on a single factor (with loadings above .60). The eigenvalues were greater than one in both 2006 and 2010, explaining 51.49 and 56.50 percent of the variance, respectively. Moreover, the confirmatory factor analysis (CFA), conducted with AMOS 21.0, indicated that the model fit the data adequately in the two different years, χ^2 (*df*) <.50; Comparative Fit Index (CFI)>.90, Standardized Root Mean Square Residual (SRMR) <.02, Root Mean Square Error of Approximation (RMSEA) <.05.

Firm Performance. We used two measures of firm performance: total stock returns (TSR) and return on assets (ROA). TSR and ROA are arguably the most widely used indicators to measure firm performance (Rumelt, 1991; Schmalensee, 1985) and many studies in this area used TSR and/or ROA as an indicator of firm performance(Chatterjee & Hambrick, 2007; Park et al., 2011; Peterson, Galvin & Lange, 2012). TSR is a measure of the performance of different companies' stocks and shares over time, calculated as changes in the stock price plus dividends paid, divided by the initial price of the stock. The ROA is an indicator of how profitable a company is relative to its total assets, calculated as the net income divided by the total assets. We obtained data on the TSR and the ROA from Execucomp.

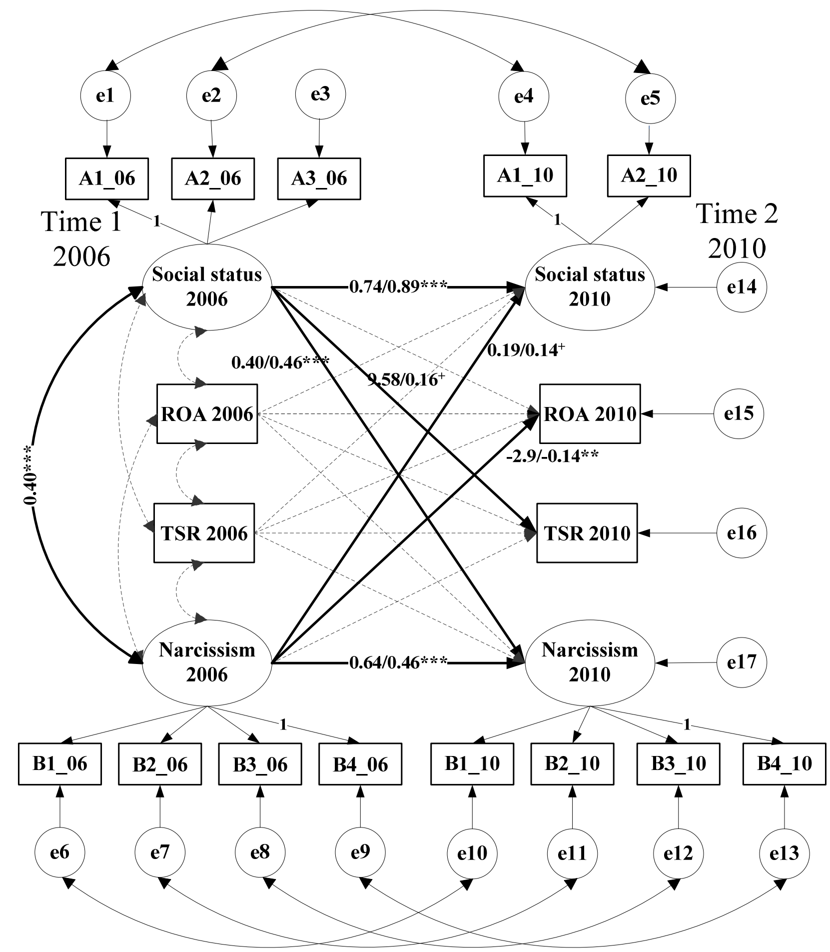
Control Variables. Control variables were included at the CEO, firm and industry level. We controlled for CEO gender, CEO age, and CEO tenure, because personality development and social status might be affected by demographic variables. CEO gender was measured as a binary variable (1-male, 0-female), CEO age was measured in the year when data was collected (in 2006 and 2010) and CEO tenure captured the number of years the CEO had held the position. We obtained demographic data from Execucomp and company proxy statements. Finkelstein (1992) illustrated that structural power had a significant relationship with social status. We, therefore, controlled for whether the CEO was also chairman (1-yes, 0-no) and the percentage of stocks owned by the CEO, as both variables are indicators of structural power (Finkelstein, 1992). We obtained the data from Execucomp. We further controlled for firm size (measured as the number of employees), firm age, and previous firm performance (TSR and ROA). Firm size and firm age influence the companies' ability to acquire resources (Wales et al., 2013). Previous firm performance has been shown to affect subsequent performance (Chen, Kanfer, DeShon, and Mathieu et al., 2009). We obtained the data on firm size, ROA, and TSR from Execucomp. We also controlled for industry dummies at the SIC 2-digit level.

2.3.3 Analysis

We applied a multiple common factors crossed-lagged regression model within the framework of a structure equation model (SEM) to test the hypothesized relationships, because this model allowed us to examine reciprocal causality (Bentler, 1980; McDonald, 1985; McArdle, 2009). The SEM framework takes into account error correction, factorial invariance, and correlated disturbances. The basic two occasion multiple common factors crossed-lagged regression model indicates that every factor was measured in two distinct times. In addition, each factor can influence the other factors in the next time period and each common factor influences itself overtime with a lagged auto-regression (McArdle, 2009). More specifically, in our model, we used this approach to test the causal directions between a CEO's social status, CEO narcissism, and firm performance. The longitudinal research design is illustrated in Figure 2.1.

We tested the model with AMOS 21.0, using a Generalized Least Squares to estimate the parameters. We examined the model fit using five widely used indices: the chi-square goodness-of-fit statistic, the root mean square error of approximation (RMSEA), the standardized root mean square residual (SRMR), the comparative-fit index (CFI), and the Tucker–Lewis index (TLI). For the RMSEA, values below 0.05 indicate an excellent fit and values between 0.05 and 0.08 indicate a good fit (MacCallum, Browne, & Sugawara, 1996). For the CFI and TLI, values above 0.95 indicate an excellent fit and values between 0.90 and 0.95 indicate a good fit; the SRMR should be below 0.08 (Hu & Bentler, 1999).

Figure 2.1 The Final Structural Model



Notes: (1) A3_10 was excluded from the model because the elite education (A3) was identical for all CEOs in 2006 and 2010. (2) For reasons of simplicity, control variables are not shown in the path diagram. (3) The unstandardized coefficients are shown before the slash while standardized coefficients are shown after the slash; only significant path coefficients are reported in the figure. $^{+}p<.1$, $^{*}p<.05$; $^{**}p<.01$; $^{***}p<.001$.

2.3.4 Results

The descriptive statistics and zero-order correlations are presented in Table 2.1. In 2006, the correlation coefficients of the three indicators of social status ranged in value from r = 0.13 to r = 0.24. In 2010, they ranged from r = 0.14 to r = 0.27. All values were significant at the p < .01 level. In 2006, the correlation coefficient of the four indicators of narcissism ranged in value from r = 0.25 to r = 0.51. In 2010, they ranged from r = 0.25 to r = 0.61. The correlation between a CEO's social status in 2006 and 2010 was r = 0.85, indicating a high reliability of the measure. For CEO narcissism, the correlation was r = 0.59 between the two measurement points, which indicates a moderate to high reliability. Measures of a CEO's social status were significantly correlated with each year of CEO narcissism, with correlations ranging from r = 0.24 to r = 0.34. Regarding firm performance, CEO narcissism in 2006 had a significant correlation with ROA in 2010, but both ROA and TSR had no significant correlation with a CEO's social status and CEO narcissism in each year.

Table 2.1 Descriptive Statistics and Correlations (N=446)

Variable	Mean	St.d.	1	2	3	4	5	6	7	8	9	10
1. Social status$_{2006}$	0.00	2.03										
2. Social status$_{2010}$	0.00	2.06	.85***									
3. Narcissism$_{2006}$	0.00	2.86	.24***	.26***								
4. Narcissism$_{2010}$	0.00	2.99	.33***	.34***	.59***							
5. ROA $_{2005}$	6.97	7.03	-.02	-.03	-.02	-.02						
6. ROA $_{2006}$	7.17	6.27	-.07	-.05	.01	-.01	.64***					
7. ROA $_{2009}$	3.38	7.04	.00	.01	-.01	-.01	.42***	.35***				
8. ROA $_{2010}$	5.61	6.08	-.05	-.04	-.10*	-.04	.47***	.41***	.62***			
9. TSR$_{2005}$	18.44	31.37	-.04	-.03	.04	.02	.19***	.27***	.06	.02		
10. TSR$_{2006}$	19.92	30.46	.01	.04	-.00	.02	-.10*	-.01	.03	-.01	-.17***	
11. TSR$_{2009}$	38.76	57.09	-.01	-.00	-.06	-.04	.00	.01	-.03	.15***	.01	.06
12. TSR$_{2010}$	25.12	28.83	.01	-.00	-.03	.05	.01	.03	-.00	.17***	-.06	.04
13. Gender	0.99	0.11	.02	.01	.06	.06	-.03	.06	-.01	.01	.09	.04
14. Age	53.20	6.95	.08	.03	.10*	.14**	.02	.01	-.00	-.00	-.12**	.03
15. Tenure	7.04	7.09	.07	-.00	.04	.08	-.00	-.10*	-.02	-.07	.05	-.08
16. Chairman$_{2006}$	0.63	0.63	.16***	.14**	.15***	.10*	.06	.04	.13**	.07	-.05	.00
17. Chairman$_{2010}$	0.68	0.47	.13**	.09	.18***	.15**	.07	.05	.16**	.05	-.03	-.04
18. Stock owned$_{2006}$	2.61	5.47	-.09	-.11*	-.13**	-.06	.12*	.03	.00	.03	.00	-.02
19. Stock owned$_{2010}$	2.19	5.28	-.05	-.08	-.06	-.01	.04	-.04	-.01	.01	-.10*	-.06
20. Firm size$_{2006}$	21.34	48.73	.12*	.11*	-.02	-.02	.04	.07	.09	.08	-.07	-.01
21. Firm size$_{2010}$	22.40	49.61	.12**	.11*	-.01	-.02	.05	.07	.12*	.09*	-.07	-.00
22. Firm age	59.71	43.37	.15***	.11*	.03	-.01	-.05	-.04	.00	-.05	-.12*	-.01

Variable	11	12	13	14	15	16	17	18	19	20	21
12. TSR$_{2010}$	.16***										
13. Gender	-.03	.04									
14. Age	-.05	-.04	.06								
15. Tenure	-.07	-.05	.03	.46***							
16. Chairman$_{2006}$	-.05	-.02	.07	.19***	.18***						
17. Chairman$_{2010}$	-.06	-.03	.11*	.27***	.21^{***v}	.63**					
18. Stockowned$_{2006}$	.07	-.01	.02	.21***	.48***	.06	.10*				
19. Stockowned$_{2010}$	.06	.04	.02	.21***	.53***	.08	.09	.76***			
20. Firm size$_{2006}$	-.05	-.08	.01	.07	-.07	.13**	.16***	-.09	-.08		
21. Firm size$_{2010}$	-.04	-.08	.01	.07	-.08	.12*	.15***	-.09	-.08	.97***	
22. Firm age	-.05	.00	-.04	.10*	-.12**	09	.10*	-.10*	-.10*	.14**	.13**

Note: Industry dummies are not shown in this table; * *$p< .05$;* ** *$p< .01$;* *** *$p< .001$.*

The results of the multiple common factors cross-lagged regression model are provided in Table 2.2. The results indicate that the measurement model fitted the data well. The overall chi-square for the model was statistically significant ($\chi 2$ (df) = 366.247(293), $p < .01$) and the values of fit indexes met our required standards (RMSEA= 0.02, SRMR= 0.03, CFI = 0.97, and TLI= 0.93).

The results from the structural model intend to illustrate the causal relationship between a CEO's social status and CEO narcissism. Figure 2.1 shows that both a CEO's social status and CEO narcissism in 2006 were significantly associated with a CEO's social status and CEO narcissism in 2010. The results from Table 2.1 and Figure 2.1 provide strong support that there was a positive association between a CEO's social status and CEO narcissism in both 2006 and 2010. Finally, a CEO's social status in 2006 was positively associated with CEO narcissism in 2010 (std.b= 0.46, $p < .001$), and CEO narcissism in 2006 was positively associated with a CEO's social status in 2010 (std.b= 0.14, $p < .10$). Consequently, both Hypothesis 1.1 and Hypothesis 1.2 were supported. This suggests that not only a CEO's social status impacts CEO narcissism but also CEO narcissism could impact a CEO's social status. Hypothesis 2.1 was not supported, as a CEO's social status was not associated with ROA and a CEO's social status was positively associated with TSR (std.b= 0.16, $p < .10$), which is opposite to our Hypothesis 2.1. The results in Figure 2.1 and Table 2.2 also show that CEO narcissism in 2006 had a negative impact on ROA in 2010 (std.b = -0.14, $p < .01$). However, CEO narcissism had no significant correlation with ROA in each year. Therefore, Hypothesis 2.2 was not supported. Furthermore, Hypotheses 2.3 and 2.4 were not supported, as previous ROA and TSR were not significantly related to a CEO's social status and CEO narcissism.

Table 2.2 Summary of Path Coefficients

	Social Status$_{2010}$	Narcissism$_{2010}$	ROA$_{2010}$	TSR$_{2010}$
Variables	*b*/std.b	*b*/std.b	*b*/std.b	*b*/std.b
Social status$_{2006}$	.74/.89***	.40/.46***	.88/.07	9.58/.16^{+}
	(.11)	(.09)	(.79)	(5.35)
Narcissism$_{2006}$	.19/.14^{+}	.64/.46***	-2.29/-.14**	-7.60/-.08
	(.11)	(.11)	(1.06)	(6.97)
ROA$_{2005}$	-.00/-.01	-.00/-.07	.12/.15**	-.06/-.01
	(.00)	(.00)	(.04)	(.27)
ROA$_{2006}$	.00/.04	.00/-.00	.07/.08	.16/.04
	(.00)	(.00)	(.05)	(.30)
ROA$_{2009}$	.00/.07	.00/.07	.48/.56***	.10/.03
	(.00)	(.00)	(.04)	(.24)
TSR$_{2005}$	.00/.00	.00/.06	-.01 /-.06	-.04/-.04
	(.00)	(.00)	(.00)	(.05)
TSR$_{2006}$	.00/.05	.00/.04	-.00/-.04	.02 /.02
	(.00)	(.00)	(.00)	(.05)
TSR$_{2009}$	.00/.03	.00/-.05	.01/.10**	.05/.09^{+}
	(.00)	(.00)	(.00)	(.03)
Gender	-.21/-.06	.06/.02	2.94/.05	17.95/.07
	(.21)	(.18)	(2.03)	(13.54)
Age	.00/.05	.00/.05	.00/.00	.05/.01
	(.00)	(.00)	(.04)	(.24)
Tenure	-.01/-.21**	-.00/-.07	-.02/-.03	-.35/-.08
	(.00)	(.00)	(.04)	(.29)
Chairman$_{2006}$	.01/.02	-.05/-.07	.17/.01	--1.96/-.04
	(.05)	(.04)	(.44)	(2.93)
Chairman$_{2010}$	-.00/-.00	.01/.01	-.82/-.06	.56 /.00
	(.06)	(.05)	(.60)	(3.97)
Stock owned$_{2006}$	-.00/-.08	.00/.02	.00/.00	-.39/-.08
	(.00)	(.01)	(.06)	(.42)
Stock owned$_{2010}$	.01/.08	.01/.11	.03/.03	.81/.16^{+}
	.(01)	(.01)	(.07)	(.44)
Firm size$_{2006}$	00/-.02	.00/.01	.01/.07	-.02/-.03
	(.00)	(.00)	(.02)	(.12)
Firm size$_{2010}$	.00/.01	-.00/-.10	-.01/-.07	-.07/-.12
	(.00)	(.00)	(.02)	(.12)
Firm age	-.00 /-.09	.00/-.07	-.01/-.06^{+}	-.00/-.00
	(.00)	(.00)	(.01)	(.04)

Notes: b indicates unstandardized path coefficients and std.b indicates standardized path coefficients; Standard errors are in parentheses; Industry dummies are not shown in this table; $^{+}$ *p< .1;* * *p< .05;* ** *p< .01;* *** *p< .001.*

Finally, as robustness checks, we used two years data for both ROA and TSR (e.g., 2005 and 2006 ROA as two indicators of ROA$_{2006}$; 2005 and 2006 TSR as two indicators of TSR$_{2006}$). Here, results did not change substantially, revealing the same pattern of supported hypotheses as in previous analyses.

We also used the difference-in-difference method to test the suggested relationships. The difference-in-difference method is widely used in economics to test the effects of changes in policy (Hausman & Kuersteiner, 2008). In the basic set up, two groups are observed over two time periods: one group is the treatment group and the other group is the control group. The first measurement point is the pre-treatment and the second measurement point is the post-treatment. The difference-in-difference estimation compares the relevant variable of the treatment and control group in the pre- and post-treatment. The general difference-in-difference model is:

$$Y_{it} = \beta_0 + \beta_1 P_i + \beta_2 T_t + \delta_1 P_i T_t + \varepsilon_{it} \qquad (1)$$

Where: Y_{it} is the outcome of interest and T_t is a dummy variable for the second time period. The dummy variable P_i reflects whether the "treatment" occurs in the second time period. The coefficient of the interaction term δ_1 is the differential estimate.

Based on the basic principle of the difference-in-difference method and the results from the cross-lagged regression model, we analyzed the causal relationships between a CEO's social status and CEO narcissism (Equations (2) and (3) :

$$NAR_{it} = \beta_0 + \beta_1 socStatus_{it} + \beta_2 T_t + \delta_1 socStatus_{it} T_t + \beta_3 Age + \beta_4 Gender + \beta_5 Tenure + \beta_6 Chairman + \beta_7 Stockowned + \beta_8 Firmsize + \beta_9 Firmage + \beta_{10} ROA + \beta_{11} TSR + \beta_{12} Industry \qquad (2)$$

$$socStatus_{it} = \beta_0 + \beta_1 NAR_{it} + \beta_2 T_t + \delta_1 NAR_{it} T_t + \beta_3 Age + \beta_4 Gender + \beta_5 Tenure + \beta_6 Chairman + \beta_7 Stockowned + \beta_8 Firmsize + \beta_9 Firmage + \beta_{10} ROA + \beta_{11} TSR + \beta_{12} Industr \qquad (3)$$

Where: i indexes and t indexes represent CEO and year, respectively; NAR_{it} is CEO narcissism in different years; $socStatus_{it}$ is a CEO's social status in different years; T_t is a dummy variable for the time period: $T_t = 1$ for the year 2010 and $T_t = 0$ for the year 2006. The coefficient of the interaction term δ_1 is the differential estimate.

The results of the difference-in-difference estimation are illustrated in Tables 2.3 and 2.4. The results indicate that the both the coefficient of socStatus*T (coef = 0.18, $p < .05$) and narcissism*T (coef = 0.08, $p < .10$) were significant. Hence, in line with the results reported above, the hypotheses are supported that a CEO's social status impacts CEO narcissism and, in turn, CEO narcissism also affects CEO's social status.

Table 2.3 The Effect of CEO’s Social Status on Narcissism

	Model 1		Model 2	
Variables	*Coef*	*t*	*Coef*	*t*
Gender	1.35	1.51		
Age	.03	1.99^{*}		
Tenure	.02	1.03		
Chairman	.49	2.80^{***}		
Stock owned	-.05	-2.66^{**}		
Firm size	-.00	-1.58		
Firm age	-.00	-1.29		.
ROA_{t-1}	-.01	-.58		
TSR_{t-1}	-.00	-.46		
T	-.24	-1.14		
Social status*T	.18	1.99^{*}	.15	1.66^{+}
Social status	.31	4.80^{***}	.34	5.27^{***}
R^2	.15		.09	

Note: Coef indicates coefficient; Industry dummies are not shown in this table; $^{+}$ *p< .1;* * *p< .05;* ** *p< .01;* *** *p< .001.*

Table 2.4 The Effect of CEO’s Narcissism on Social Status

	Model 1		Modle 2	
Variables	*Coef*	*t*	*Coef*	*t*
Gender	-.33	-.53		
Age	-.00	-.41		
Tenure	.02	1.84^{+}		
Chairman	.23	1.90^{+}		
Stock owned	-.03	-2.2^{*}		
Firm size	.00	3.07^{**}		
Firm age	.00	3.34^{***}		
ROA_{t-1}	-.00	-.29		
TSR_{t-1}	.00	.55		
T	-.15	-1.00		
Narcissism*T	.08	1.74^{+}	.06	1.37
Narcissism	.16	4.88^{***}	.17	5.35^{***}
R^2	.14		.09	

Note: Coef indicates coefficient; Industry dummies are not shown in this table; $^{+}$ *p< .1;* * *p< .05;* ** *p< .01;* *** *p< .001*

2.4 Discussion

This study attempts to disentangle the causal relationships between a CEO’s social status, CEO narcissism and firm performance. The cross-lagged and difference-in-difference examination show the reciprocal influences of CEO’s social status and CEO narcissism. That is, CEOs with higher social status will be more narcissistic than CEOs with a relatively lower social status, and high-narcissistic CEOs tend to have a higher social status. We further found some support that narcissism had a negative influence on later firm performance.

2.4.1 Causal Relationships between a CEO's Social Status and CEO Narcissism

An important contribution of our work is that we examine the causal relationships between a CEO's social status and CEO narcissism. We found that CEO narcissism could both affect and be affected by CEO's social status. First, we found that CEOs with a relatively higher social status will be more narcissistic than CEOs with relatively lower social status. The concept of narcissism has been widely discussed in the upper echelon literature. The existing research on narcissism has primarily focused on exploring the positive or negative implications of narcissism for leadership and the individual level functioning, rather than its antecedents (Judge et al., 2006; Kets De Vries & Miller, 1985; Maccoby, 2000). Different from the previous research, our work tries to clarify how or why a variation in the social context impacts individuals' narcissism. Thus, this reciprocal effect of a CEO's social status on CEO narcissism has important implications for the upper echelon literature. Roberts and Chapman (2000) found that work related experiences, such as achieving higher status, are associated with one's self-confidence and responsibility. Our finding is consistent with this evidence in that social investment (e.g., in careers) are driving mechanisms of personality development (Roberts et al., 2005; Wood et al., 2013).

Further, our results show that CEO narcissism impacts CEOs' social status. Lodi-Smith and Roberts (2007) reported meta-analytic evidence that personality traits, such as agreeability and conscientious, might make individuals more inclined to commit to adult social roles. Woods et al. (2013) also pointed out that personality traits play different roles at different stages of individuals' working lives. Although these studies give some examples how personality traits can influence individuals' social roles, our study is the first that links this stream of research from personnel psychology to the strategic management literature.

2.4.2 The Role of a CEO's Social Status and CEO Narcissism on Firm Performance

Previous empirical studies have illustrated how narcissistic leaders affect firm's strategy and performance (Chatterjee & Hambrick, 2007, 2011; Resick et al., 2009). Our work complements this research on the effect of narcissism on firm performance in two ways. First, the result is consistent with the previously stated assumption (Padilla, Hogan, & Kaiser, 2007; Rosenthal & Pittinsky, 2006) that a CEO's personality should affect firm performance. Second, the present study adds to the discussion on how CEO narcissism might be a negative indicator of firm performance.

Our study also complements previous work on the role of social status in organizations. While existing studies have primarily focused on the relationship between high-status CEOs and compensation for executives and directors (Belliveau et al., 1996; Finkelstein et al., 2008), less is known about the consequences of a CEO's social status for firm performance. The results presented here show that, contrary to what we expected, no significant relationship between a CEO's social status and ROA existed, but a CEO's social status in 2006 was positively associated with TSR in 2010. Although there is no evidence in our data to support the idea that high-status CEOs will negatively affect their firm performance, the positive effect of social status in 2006 on TSR in 2010 illustrates a direction for future research.

2.4.3 The Role of Firm Performance for a CEO's Social Status and CEO Narcissism

Our results also shed light on the influence of firm performance on CEO narcissism and social status. The empirical studies on CEO narcissism and CEO social status have primarily focused on how CEO narcissism or social status impacts organizational outcomes or other executives in the company (Chatterjee & Hambrick, 2007; Finkelstein et al., 2008). Much less is known about how or why CEO narcissism and CEO social status could be impacted by organizational outcomes. Our findings suggest that previous firm performance is not related to narcissism or social status. Although narcissism and social status might change throughout a person's life, we find no evidence of firm performance being an important factor for these changes.

2.4.4 Practical Implications

Our results suggest that CEO narcissism may potentially dampen firm performance. Chatterjee and Hambrick (2007) showed that narcissistic CEOs tend to produce a higher variability in firm performance (e.g., either big wins or big losses). Moreover, narcissistic leaders have been shown to be more likely to have unhappy employees (Blair et al., 2008) and inhibit information exchange in the organizations (Nevicka et al., 2011). In other words, having a narcissistic CEO is risky. Therefore, it is recommended that organizations attempt to assess narcissism in their routine screening when they select CEOs and other top managers (Nevicka et al., 2011).

We also show that a CEO's social status was positively associated with CEO narcissism. As mentioned previously, investing in the social role, such as a work-related experience, is the driving mechanism of personality development (Roberts & Chapman, 2000; Roberts et al., 2005; Wood et al., 2013). As such, CEO narcissism might be influenced by the work environment; their higher narcissism might have been developing during their career. Park et al. (2011) pointed out that CEOs with relatively high social status have potentially negative influence on performance. Furthermore, high-status CEOs exert a disproportionate influence over the election and compensation decision of directors (Allen, 1974; Belliveau et al., 1996; Finkelstein et al., 2008; Useem, 1984). Hence, a CEO that holds directorship in multiple companies could not monitor many firms effectiveness and could also enhance their tendency of narcissism.

2.4.5 Limitations and Further Research

Like any study, our work has several limitations. The first limitation is that we only examined the causal relationships of a CEO's social status, CEO narcissism and firm performance among CEOs from United States companies. The United States has its distinct culture and economic background, and it grants considerable managerial discretion, because of its individualism and tolerance for uncertainty (Hofstede, 2001). Thus, our conclusions might not extend to non-United States samples. As such, it could be interesting for further research to analyze these relationships in other cultural contexts. We also recommend that future studies investigate to what extent the level of managerial discretion impacts our findings.

The second limitation is that the measures of social status and CEO narcissism in our study rely on unobtrusive indicators. Although these indicators have been successfully used in other research, the unobtrusive indicators are only partial and indirect indicators of social status and narcissism. Therefore, even though the psychometric properties of our measures for narcissism and a CEO's social status were sufficient, they may need additional validation and refinement. In future research, the social status index and narcissism index could therefore be revised or new unobtrusive indicators could be identified. Additionally, TSR, as one indicator of firm performance, has a relatively low reliability in our sample. Because TSR is a measure of the stock price change, it varies considerably over the years. Future research might also include return on investment (ROI) and return on sales (ROS) (Tang, Crossan, and Rowe, 2011) as indicators of firm performance.

The third limitation is that we only focus on the CEO level. Studying the effects of CEO narcissism or social status on those individuals who interact most closely with CEOs might be important as well. For example, how is CEO narcissism or social status linked to processes in the top management team? Chen (2011) examined the moderated effect of independent directors on the TMT characteristics – internationalization relationship. Carmeli and Schaubroek (2006) pointed out that TMT behavior integration could affect the quality of strategic decisions. Kinicki, Jacobson, Galvin, and Prussia (2011) also found that the process by which CEOs create vertical and horizontal alignments of goals across organizational levels could influence firm performance. It would thus be interesting to study how narcissistic CEOs or high-status CEOs approach goal alignment and strategic implementation. On the contrary, board power might also influence a CEO's decisions. The primary responsibility of the board is to monitor the management of the firm (Eisenhardt, 1989), which includes monitoring the CEO and strategy implementation (Hillman & Dalziel, 2003). The effects of CEO narcissism might therefore be influenced by board power and other organizational characteristics. Future research might examine these influencing factors on a CEO's decision-making processes.

Finally, financial incentives should be considered in the future research. Finkelstein et al. (2008) pointed out CEOs with a high social status influence the compensation for executives and directors (Belliveau et al., 1996). O'Reilly III, Doerr, Caldwell, and Chatman (2014) found that more narcissistic CEOs with longer tenure will receive more total direct compensation and will have larger discrepancies between their own compensation and the other executives of their team. It would also be valuable to understand the moderating role of social status and narcissism on how pay arrangements alter a CEO's behaviors.

CHAPTER 3

3 The Dynamic of CEO-Board Relationships: Board Power, CEO Narcissism, and Their Effect on Company Strategy

3.1 Introduction

CEOs and corporate boards of directors play an important role in corporate management, exercising their influence through their formal and informal power (Pfeffer, 1992). However, both the CEO and the board of directors tend to consolidate and increase their power and influence over company decision-making, often resulting in a political struggle between the CEO and the board of directors (e.g., Ocasio, 1994; Wade, O'Reilly, & Chandratat, 1990; Zajac & Westphal, 1994). In this study, we combine arguments from agency theory, institutionalization of power, and circulation of power approaches to gain a better understanding of the CEO-board relationship and its long-term consequences. Agency theory emphasizes that the primary function of boards is to monitor the management of benefits to the firm and its shareholders (Eisenhardt, 1989; Fama & Jensen, 1983), which includes selecting and dismissing top-management team members and evaluating their performance (Ruigrok, Peck, & Keller, 2006). The board is also involved in ratifying and monitoring corporate strategy (Carter & Lorsch, 2004; Fama & Jensen, 1983). However, existing research on the boards' role has focused on board composition (e.g., independence of board members) and structure (e.g., duality) (Kor, 2006; Ruigrok et al., 2006). Much less is known about how a powerful board actually affects CEO selection and organizational strategy, although the effectiveness of boards' monitoring role depends largely on the board's power (Tang, Crossan & Rowe, 2011). The ongoing power struggle between a CEO and board, as well as the shifting coalitions in the company, is expressed in the circulation of power approach (Ocasio, 1994). We draw on the institutionalization of power approach to emphasize the ability of powerful individuals in the corporation to assert their formal authority.

We are interested in the role that CEO narcissism plays in the dynamic relationship between board and the CEO. Narcissism is the degree to which an individual has an inflated self-view and strives to continuously reinforce this self-view (Campbell & Miller, 2011; Judge, LePine, & Rich, 2006). Narcissistic individuals tend to be arrogant, self-serving, and power-oriented (Blair, Hoffman, & Helland, 2008). They are also inclined to devalue others, react aggressively to criticism (Paulhus & Williams, 2002), and take bold and risky actions to garner attention and admiration (Chatterjee & Hambrick, 2007). CEO narcissism might thus be a key concept when analyzing power struggles between a board and CEO. Prior research on CEO succession has focused primarily on the potential differences between outside successors and insider successor (e.g., Boeker & Goodstein, 1993; Cannella & Lubatkin, 1993), as well as demographic characteristics of new CEOs (e.g., Zajac & Westphal, 1996). Only recently has attention shifted toward CEO personality traits under the premise that it is arguably more important to understand CEO behavior than demographic characteristics (Engelen, Neumann, & Schmidt, 2013; Nadkarni & Herrmann, 2010). For example, Goel and Thakor (2008) argue that an overconfident manager is more likely than a rational manager to be promoted to CEO under value-maximizing corporate governance. However, narcissism is an important characteristic that has not been analyzed in the CEO-succession context. We examine this relationship and suggest that a powerful board tends to not hire narcissistic CEOs, as these CEOs might not support their strategic direction, might weaken their power, and might negatively influence the company's overall performance.

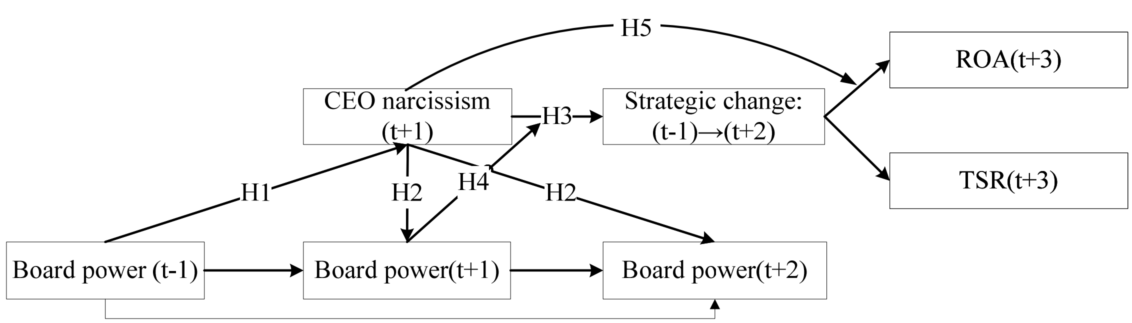
Furthermore, we are interested in CEOs' impact on board power after appointment.

With regard to CEO narcissism, prior research analyzed how CEOs manage their relationships with the board by selecting new directors who have similar narcissistic tendencies or prior experience with narcissistic CEOs (Zhu & Chen, 2014b). However, little theoretical or empirical research has examined the role of CEOs' narcissism as it relates to board power following the appointment of a CEO. Given that a powerful board imposes important restraints on CEOs' strategic decision-making (Tang et al., 2011) and there are power struggles between CEOs and boards of directors, it is thus important to analyze how narcissistic CEOs influence board power and how boards to restrain CEOs' decision-making abilities. Thus, our first research goal is to examine the reciprocal relationship between board power and CEO narcissism.

As it is related to the CEO-board power struggle and boards' monitoring function, we are interested in determining if a powerful board might hinder narcissistic CEOs' intentions to change the company's strategic choices. Existing studies have elaborated on the influence a CEO's personality has over a company's strategy choices. For example, Chatterjee and Hambrick (2007) demonstrated that narcissistic CEOs are positively associated with strategic dynamism and grandiosity. However, Park, Westphal and Stern (2011) argued that CEOs' self-enhancement is negatively associated with strategic change in response to low firm performance. Thus, although there is agreement that CEO personality can affect a firm's strategy-making decisions, existing research is inconsistent with regard to the direction and contextual factors of this relationship. We intend to fill this research gap. First, we argue that narcissistic CEOs favor strategic change after their appointment, which is rooted in their overconfidence and strong desire for power. We then argue that powerful boards tend to weaken the effect of CEO narcissism on strategic change. Since strategic change is considered riskier than extant strategies (Jauch, Osborne, & Gleuck, 1980), a powerful board that acts in the interest of shareholders will tend to prevent strategic change whenever it doubts its usefulness. The behaviors of powerful boards that strive to weaken the effects of CEO narcissism on strategic change reflect the power struggle between CEOs and boards. Thus, a powerful board might not hire a highly narcissistic CEO who favors strategic change to garner attention and admiration in the first place, or might reject strategic change initiated by a narcissistic CEO.

Overall, this study makes several important contributions to the strategic-management literature. First, our study aims to uncover a dynamic process that incorporates both the predictive role of board power on hiring narcissistic CEOs, and the effect of CEO narcissism on board power based on agency, power institutionalization, and power circulation theories. Second, in view of the primary monitoring role that boards may play in changing the direction of company strategy, our study extends the work of Chatterjee and Hambrick (2007) by arguing that board power is not only affected by CEO narcissism, but also moderates the CEO narcissism–strategic change relationship. Finally, our study strives to elaborate on the relationship between strategic change and firm performance. This reciprocal and dynamic relationship is reflected in our research framework (see Figure 3.1).

Figure 3.1 Overview of the Research Model



Note: (1) t-1is One year before the CEO was appointed; t+1 is one year after the CEO was appointed; t+2 is two years after the CEO was appointed; t+3 is three years after the CEO was appointed (2) For reasons of simplicity, control variables are not shown in the path diagram.

3.2 Theoretical Background and Hypotheses

Agency Theory. Agency theory contends that a board's primary function is to monitor the actions of managers to protect owners' interests (Eisenhardt, 1989; Fama & Jensen, 1983). Board incentives are the primary prerequisite of the monitoring function, and boards will monitor management effectively when their incentives are aligned with shareholders' interests (Fama, 1980; Hillman & Dalziel, 2003; Jensen & Meckling, 1976; Walters, Kroll, & Wright, 2008). Hillman and Dalziel (2003) pointed out that one important proxy of board incentive is board dependence. Previous studies have shown that there is a preference for a dominance of external independent directors because a board's willingness and ability to monitor management effectively is related to board members' independence (Dalton et al., 2008; Fama, 1980; Fama & Jensen, 1983). Agency theorists have also argued that the separation of the CEO and the board improves monitoring by ensuring independent and vigilant oversight (Krause & Semadeni, 2013). A powerful board is characterized by a higher proportion of outside directors, a high level of equity holding among outside directors, and an independent leadership structure (i.e., separation of CEO and board chairperson) (Datta, Musteen, & Herrmann, 2009; Hayward & Hambrick 1997). Based on agency theory, a powerful board can more effectively fulfill its monitoring role and be more effective in aligning the interests of owners and managers when these characteristics are present.

Institutionalization of Power and Circulation of Power. The institutionalization of power and circulation of power theories were developed to explain political dynamics (e.g., Ocasio, 1994; Salancik & Pfeffer, 1977). The power institutionalization theory portrays the abilities of powerful individuals in a corporation to entrench their formal authority and to increase their control of the corporation while limiting others' authority and control of the corporation over time (Ocasio, 1994; Salancik & Pfeffer, 1977). There are three interrelated processes that may lead to the institutionalization of power (Ocasio, 1994; Pfeffer, 1981): the escalation of commitment to a course of action; the taking for granted of an incumbent's power; and the maintenance and consolidation of power by incumbents through increased resources.

In contrast to the power institutionalization theory, which emphasizes the institutionalization and perpetuation of power, the power circulation theory emphasizes the shifting coalitions and continual power struggle in a company (Ocasio, 1994). There is emergent and recurrent conflict, circulation, and change in organizations, as diverse corporate elites (e.g., a corporation's senior executives or top management) contend for control over the organization's dominant coalition (Hambrick, 1994; Zald & Berger, 1978). Power circulation suggests that individual and group power is unstable because there are political obstacles arising from power contests initiated by other corporate elites (Ocasio, 1994). The circulation of power is guided by the interplay of two underlying mechanisms: obsolescence and contestation (Ocasio, 1994). Obsolescence implies that organizational elites might become outdated because they are unable to adequately adapt to environmental contingencies (Miller, 1991). Contestation refers to the emergent and continual struggle for position, control, and power among competing factions and organizational elites (White, 1992). Power circulation challenges the institutionalization of power theory, which assumes that organizational elites can perpetuate and consolidate their power, by arguing that the power of organizational elites is subject to challenge, political struggle, and contestation (Ocasio, 1994; Pareto, 1968).

Previous studies on the institutionalization of power and circulation of power theories focused on how incumbent CEOs maintain and perpetuate their power (e.g., Ocasio, 1994), and how incumbent CEOs face the risk of power contests initiated by non-CEO executives and outside directors (e.g., Ocasio, 1994; Shen & Cannella, 2002). We assume that the contest occurs not only among executives, but also between CEOs and boards. We have thus moved beyond previous research by applying the two theories and combining them with agency theory to examine CEO-board relations. From the perspective of agency theory, boards tend to not hire a CEO who might have a potential negative influence on the firms and their shareholders. Additionally, highly narcissistic CEOs who dominate their relations with the boards will impair the boards' power and prevent boards from restraining their decisions. From the perspectives of power institutionalization and power circulation, both the board and the CEO will try to consolidate their power over time; at the same time, there is also latent and overt power and control struggles between a board and a new CEO. A powerful board will try increase, or at least maintain its overall power in its relationship with the CEO so that they will be not hiring a new CEO who might weaken their power and control over the company. On the other hand, narcissistic CEOs who have a strong desire for power and domination will be more likely to exploit power in order to gain ultimate control over the board.

CEO Narcissism. Early studies tended to classify narcissism as a pathological disorder (Freud, 1957). Later studies have widely conceptualized narcissism as a personality dimension on which all individuals can be placed (Emmons, 1984; Raskin & Terry, 1988). Previous research found that narcissists are primarily concerned with their own preferences and have a positive and grandiose self-concept and use self-regulating strategies to inflate this concept (Morf & Rhodewalt, 2001). Researchers demonstrated that highly narcissistic individuals tend to be associated with arrogance, self-absorption, self-admiration, an inflated sense of self-value, a sense of entitlement and a sense of superiority (Ames, Rose, & Anderson, 2006; Emmons, 1987; Morf & Rhodewalt, 2001; Resick et al., 2009). These qualities often help narcissistic individuals to emerge as leaders (Brunell, et al., 2008). Some studies have even argued that a high level of narcissism is a fundamental personality trait of CEOs (Judge et al., 2006). Many existing studies have focused on examining narcissism at the CEO level. For instance, Chatterjee and Hambrick (2007) found that narcissistic CEOs tend to favor bold actions and highly dynamic strategies. Chatterjee and Hambrick (2011) argued that highly narcissistic CEOs are less responsive to objective indicators of their performance and more responsive to social praise. Gerstner et al. (2013) argued that narcissistic CEOs tend to be relatively aggressive toward technological discontinuities. Further, Zhu and Chen (2014a) found that narcissistic CEOs tend to rely more on their own prior experiences and less on the other directors' prior experiences when deciding the focal firm's corporate strategies. CEO narcissism has also been argued to be associated with director selection (Zhu & Chen, 2014b).

3.2.1 The Relationship between Board Power and the Selection of Narcissistic CEOs

Boards of directors play an important role when a firm selects a new CEO (Lorsch & MacIver, 1989). Borokhovich, Parrino and Trapani (1996) found that there is a positive relationship between the percentage of outside directors and the frequency of outside CEO successions. Furthermore, a more powerful board is more likely to select new CEOs with demographic characteristics that are similar to board members (Zajac & Westphal, 1996). A qualified CEO is important for a firm because he or she might affect the quality of the information available to the board of directors and investors (Adams & Ferreira, 2007), the firm's subsequent corporate investment decisions (Song & Thakor, 2006), and the overall direction of the firm (Goel & Thakor, 2008).

Based on agency theory, the primary driver behind the decision to hire a qualified CEO is the obligation to ensure that management acts in the shareholders' best interests (Hillman & Dalziel, 2003; Walters et al., 2008). The negative consequences of narcissistic leaders have been well documented in previous research. For example, Bass and Steidlmeier (1999) pointed out that narcissistic CEOs might try to enhance their public image rather than focusing on achieving organizational goals. Chatterjee and Hambrick (2007) found that narcissistic CEOs are more likely to produce financial volatility and wide fluctuations in firm performance (e.g., either big wins or big losses). Resick et al. (2009) considered narcissism as one of the dark-side personality characteristics and stated that narcissistic CEOs demonstrate less-contingent reward leadership behaviors. A powerful board is more independent of the current management of the firm and usually puts shareholders' interests first. Thus, a powerful board is particularly vigilant and actively monitors company management; it is therefore more likely to search for the best possible CEO candidate. Since highly narcissistic CEOs might have a negative influence on the company and hurt shareholders' interests, a powerful board will not take the risk of hiring a highly narcissistic CEO.

Furthermore, to enhance social integration and carry out their monitoring role, boards prefer to appoint a CEO who will have efficient and frequent communication with the board (O'Reilly, Caldwell & Barnett, 1989; Useem & Karabel, 1986). Narcissistic leaders have been shown to inhibit information exchange in organizations (Nevicka et al., 2011). As they are generally disposed to exhibit arrogance and self-admiration, narcissistic leaders tend to resist others' suggestions (Hogan, Raskin & Fazzini, 1990), and are unlikely to communicate with others equitably (Resick et al., 2009). Moreover, since narcissistic individuals need to feel superior, they tend to be dominant in interactions with others (Paulhus & Williams, 2002). Thus, relatively powerful boards that play a large role in the CEO selection process are likely to be more influential in exercising their own preferences (Zajac & Westphal, 1996). They will, therefore, be less likely to choose highly narcissistic CEOs who tend to be dominant in their communication with boards and hinder information availability, which makes it more difficult for boards to pursue their monitoring role.

The effectiveness of a board's role in monitoring and controlling company decision-making on behalf of shareholders depends on the board's power. According to the institutionalization of power theory, board power is likely to increase when a board appoints a qualified CEO. Hiring a qualified CEO leads to an escalation of commitment to the board and a taking for granted of its power, which in turn increases the probability that the board's power will be maintained. Therefore, in order to maintain and consolidate its power, a board will exert its influence to avoid hiring a narcissistic CEO, as highly narcissistic CEOs carry a high probability of bringing about negative outcomes for the company. According to the model of the circulation of power, the board of directors is a shifting political coalition, as its members might be changed and replaced over time (Ocasio, 1994). CEOs play an important role in director selection (Lorsch & MacIver, 1989; Mace, 1971). Thus, CEO succession and selection might trigger a latent contest for power and control between boards and CEOs following a CEO's appointment. Since narcissistic individuals have a strong desire for power and tend to be dominant in making company decisions (Rosenthal & Pittinsky, 2006), highly narcissistic CEOs are more likely to constrain board power after they are appointed by the board. In order to maintain and increase their overall power in relationship to the CEO and control over management behavior and strategic decision-making, a powerful board will not select a new CEO who might challenge its power and control.

In contrast to a highly powerful board, a less powerful board is ineffective in monitoring and controlling the CEO selection progress and firm management in general because a less-powerful board often depends on current management and does not have the same incentive and power that a high-power board has. It has been shown that a dominance of insiders and a relatively high concentration of power at the top lead to ineffective monitoring and possible opportunistic behavior on the part of managers (Beatty & Zajac, 1994). Thus, with a less-powerful board, the company might appoint a highly narcissistic CEO who has close personal or business ties with the top management.

Hypothesis 1 (H1): Board power is negatively associated with the selection of narcissistic CEOs.

3.2.2 The Relationship between CEO Narcissism and Board Power

CEOs play an important role in the director-selection process (Lorsch & MacIver, 1989; Mace, 1971). The selection of a new director is the outcome of a bargaining process between the CEO and the existing board (Arthur, 2001). Additionally, the outcome of the negotiation process reflects CEO dominance in some firms and board control in others (Withers, Hillman & Cannell, 2012). CEOs tend to choose directors with whom they have personal relationships (Fredrickson, Hambrick, & Baumrin, 1988; Mace, 1971) or directors who are likely to be compliant (Hermalin & Weisbach, 1998). Directors who closely monitor management are avoided (Finkelstein, Hambrick, & Cannella, 2009). Zajac and Westphal (1996) similarly found that a high-power CEO is less likely to appoint existing directors for future appointments at firms if they are inclined to reduce CEO power and increase board control.

The degree to which boards influence company management depends on board power relative to the top management team (TMT) and CEOs in particular (Tang et al., 2011). The power of the board increases its influence over a range of major decisions, and a powerful board imposes important restraints on a CEO’s decision outcomes (Tang et al., 2011). Thus, a powerful board is more likely to reject a CEO’s proposal. Narcissists have an inflated sense of themselves and tend to believe they are talented, intelligent, competitive, creative, and in possession of strong leadership skills (John & Robins, 1994; Judge, LePine, & Rich, 2006). Rooted in their inflated sense of themselves, narcissists are unwilling to be rejected by the boards. Therefore, when CEOs possess higher levels of narcissism, they are more likely to reduce board power to prevent the board from restraining their decisions. Moreover, narcissistic individuals tend to dominate and control every activity because of their need to prove their superiority (Campbell, 1999; Kets de Vries & Miller, 1985; Paulhus & Williams, 2002). Social psychology research revealed that narcissistic leaders are especially motivated to reduce the impact of other group members’ influence on teams’ decision outcomes

(Nevicka et al., 2011) and tend to be dominant in making task-related decisions to garner admiration and applause (Campbell & Miller, 2011). A highly narcissistic CEO may be especially dominant in interactions with the board of directors and may also be more likely to reduce a board's influence on company management in order to ensure the CEO's dominance in making major corporate decisions.

Research on narcissism has revealed that power is one of the most important motivators for narcissistic leaders (Rosenthal & Pittinsky, 2006). Narcissistic individuals have a strong desire to garner power to support their grand needs and visions (Campbell et al, 2011). Glad (2002) also argued that narcissistic leaders tend to obtain power to ascend the ranks; they keep craving and seeking power even when they have reached the pinnacle of entrenched power. Further, Maccoby (2000) demonstrated that narcissistic individuals try to realize admirable achievements. For narcissistic CEOs, enhancing their power in the company could therefore help them implement their grandiose plans and fulfill personal ambitions. Therefore, a highly narcissistic CEO is likely to have stronger power motivation than other CEOs. The institutionalization of power theory posits that CEOs might use their power and position to consolidate and perpetuate their power (Ocasio, 1994). Additionally, CEO power tends to increase over the period of their incumbency (Ocasio, 1994). CEOs with more power than the board can more convincingly argue their positions and generally have greater control over the outcomes of board decisions. As a result, they may control company management. Thus, narcissistic CEOs who have greater power motivation are likely to reduce a board's power in order to increase their own influence over corporate decisions.

The power circulation theory emphasizes the impermanence and contestation of the organizational elites' power (Ocasio, 1994). According to the power circulation theory, the power of the CEO is subject to contestation (Ocasio, 1994). The board of directors may also constrain the CEO's power and control (Ocasio, 1994; Shen & Cannella, 2002; Seidel &

Westphal, 2004). The power of a CEO can best be contested when the board is powerful. Since the degree to which CEOs influence corporate governance decisions depends on CEO power relative to boards (Zajac & Westphal, 1996), and a powerful board could limit the possibility of the CEO exerting social influence to maintain and increase his or her power, highly narcissistic CEOs with a strong desire for power are motivated to compete for power with boards in the corporate world and for control over a company's strategic decision-making process after they are appointed. Therefore, more narcissistic CEOs that are driven by their underlying power orientation are more likely to reduce a board's power by, for example, appointing fewer independent outside directors to obtain self-affirmation and enhance their own influence over company management.

Hypothesis 2 (H2): CEO narcissism is associated with decreases in board power.

3.2.3 CEO Narcissism, Board Power, Strategic Change and Firm Performance

The literature on strategic leadership has provided considerable evidence that CEO characteristics affect the firm's strategic direction. For instance, studies have shown that CEOs' demographic characteristics, such as education, age, functional background, and tenure, influence their tendencies to implement new ideas (Datta, Rajagopalan & Zhang, 2003; Miller, 1991). Other studies have shown that CEO pay and CEO dominance influence firms' strategic direction (Carpenter, 2000; Tang et al., 2011). Together, these studies indicate that a firm's CEO, as an important member of the firm's dominant coalition, has an impact on the company's strategic choice (Hambrick & Mason, 1984; Peterson et al., 2003).

Moreover, research has shown that a CEO's personality influences how information is filtered and interpreted, as well as related conditions and stimuli, and, finally, how it impacts company decisions (Hambrick & Mason, 1984). Nadkarni and Herrmann (2010) found that CEO extraversion, emotional stability, and openness to experiences are positively associated with strategic flexibility, whereas CEO conscientiousness inhibits strategic flexibility. Chatterjee and Hambrick (2007) demonstrated that CEO narcissism is positively related to strategic dynamism and grandiosity in computer hardware and software industries. Research on narcissism has further shown that relatively high-level narcissistic leaders have a strong desire to draw attention to their vision and leadership and are more likely to strive for bold, daring, and highly visible initiatives (Judge et al., 2009). Since narcissistic leaders have inflated self-views and tend to believe they are talented, intelligent, competitive, creative, and in possession of strong leadership skills (John & Robins, 1994; Judge, LePine, & Rich, 2006), narcissistic CEOs are more likely to feel confident about their understanding of corporate strategy, and they tend to change a company's current strategy to demonstrate their superior abilities. Further, narcissists are driven by an overwhelming desire for superiority (Campbell, 1999), applause, and affirmation (Engelen et al., 2013). To fulfill these needs, narcissistic CEOs are more likely to initiate change rather than maintain stability. Engelen et al. (2013) demonstrated that narcissistic CEOs tend to embrace change and allocate firm resources accordingly. Thus, a more narcissistic CEO is more likely to initiate strategic change, a tendency that is rooted in the characteristics of relatively high-level narcissists.

The institutionalization power theory suggests that CEOs strive to consolidate and perpetuate their own power during their tenure (Ocasio, 1994). Highly narcissistic CEOs who are driven by a strong desire for power and control are more likely to consolidate their power after they are appointed. Initiating strategic change helps CEOs explore new opportunities, expand resources, and establish networks of influence in ways that institutionalize and perpetuate their power. According to the power circulation theory, newly appointed CEOs are surrounded by senior executives and boards of directors who also have strong needs for power and control and are viewed as rivals of the CEO. Even when a firm is successful, highly narcissistic CEOs who tend to dominate and control a company's decision-making will still be drawn toward changing company strategy after they are appointed, as a change in current strategy reflects a successful power and control contest against senior executives and the board of directors. In these situations, narcissistic CEOs will tend to change company strategy after they are appointed.

Hypothesis 3 (H3): CEO narcissism is positively associated with strategic change.

Boards of directors should prevent managers from engaging in opportunistic, self-interested behaviors (Jensen, 1993; Shleifer & Vishny, 1997). Since outside directors emphasize financial outcomes and have a desire to protect their own personal reputation, they have more motivation to pursue their monitoring role (Hill & Snell, 1988; Finkelstein & D'Aveni, 1994). A powerful board means a higher proportion of outside directors, high equity holding of outside directors, and leadership structures that are independent of the current CEO, and thus are in a better position to fulfill their responsibilities.

Studies of boards have acknowledged that boards play an important role in the strategic behavior of firms (Bacon, 1993; Berenbeim, 1995). In arriving at strategic decisions, the board is involved in defining, selecting and implementing corporate strategy (Pearce & Zahra, 1992; Stiles & Taylor, 2001), and its main function is ratification and monitoring (Carter & Lorsch, 2004). Strategic change includes major organizational restructuring (Lant, Milliken, & Batra, 1992); it requires increased effort and is perceived as riskier than extant strategies (Jauch et al., 1980). Further, Carpenter (2000) argued that it is more difficult for stakeholders to evaluate a company if a strategy deviates from strategic norms established by the firm. Thus, strategic change is less defensible than a conformist strategy in the board's deliberation (Tang et al., 2011). According to agency theory, boards should ensure that CEOs carry out their managerial responsibilities in the best interests of shareholders (Fama & Jensen, 1983). Therefore, a powerful board may reject strategic change, even though highly narcissistic CEOs tend to advance strategy change to meet their need for superiority, applause, and affirmation. Conversely, a less-powerful board might have a higher proportion of inside directors and the CEO might also serve as chairman of the board. It has been shown that inside directors might hesitate to oppose a CEO's strategic proposals because the CEO plays an important role in their career advancement (Ruigrok et al., 2006). All in all, a CEO's effect on strategic change is likely to be weakened by powerful boards.

Power circulation theory suggests that CEO power might be contested by non-CEO senior executives as well as by outside directors (Ocasio, 1994; Shen & Cannella, 2002). A powerful board does not need to engage in intensive, explicit monitoring and disciplinary activities to influence a CEO's decision-making (Tang et al., 2011). A powerful board that wants to maintain and increase its overall power and control over company decision-making tends to counter the power of the CEO, and thus challenge the CEO's decisions. Highly narcissistic CEOs who tend to initiate strategic change regardless of whether or not a firm is performing successfully after they are appointed will be more likely to be subject to challenge and contestation from a powerful board. Therefore, a powerful board that has a strong need to maintain and increase power and control is more likely to reject strategic change to maintain its power over a CEO.

Hypothesis 4 (H4): The effect of CEO narcissism on strategic change is weakened by a powerful board.

The literatures on the relationship between strategic change and firm performance yielded inconsistent results. Some studies found that strategic change positively influences performance (Haveman, 1992; Zajac & Kraatz, 1993), while others found that strategic change has a negative influence on performance (Singh, House, & Tucker 1986). Additionally, some studies found that there is no relationship between strategic change and firm performance (Kelly & Amburgey, 1991). Therefore, it is difficult to say whether strategic change enhance or reduce firm performance. But existing research has recognized that organizational conditions under which strategic change is initiated and implemented could moderate the effect of strategic change on firm performance (Rajagopalan & Spreitzer, 1997). For example, Virany, Tushman, & Romanelli (1992) pointed out that executive leadership is important in understanding the effect of strategic change on performance. Zhang and Rajagopalan (2010) stated that CEO origin moderates the relationship between strategic change and firm performance. We develop a similar argument and suggest that CEO narcissism might moderate the impact of strategic change on firm performance. That is, strategic change initiated by narcissistic CEOs will have a negative effect on firm performance, as it is intended to improve CEOs' public image rather than organizational outcomes.

Company strategy change needs to align a firm's strengths and weaknesses with the problems and opportunities in its environment (Andrews, 1971). Further, strategic change requires increased effort, knowledge, and spending to build new capabilities and acquire new resources (Zhang & Rajagopalan, 2010), and leaders need to be aware of the possible loss of alternatives when they make choices (Amihud & Lev, 1981). The reason narcissistic CEOs initiate strategic change is often because they seek to demonstrate their superior ability and win power contests with other executives and boards of directors. Thus, narcissistic CEOs have incentives to change company strategy but show little concern about the possibility of significant losses.

Hypothesis 5 (H5): CEO narcissism moderates the effect of strategic change on firm performance.

3.3 Methods

3.3.1 Sample and Data Collection

Our sample frame included companies on the 2012 S&P Composite 1500 list. First, we confined our sample to CEOs who started their tenure (designated as year t) at the S&P 1500 between 2007 and 2010 and held their position for at least two years. Second, we only included companies whose net sales are greater than $40 million because larger firms have a more formal governance structure at the top (Tang et al., 2011). Finally, we did not include companies that were not listed on COMPUSTAT, or if they failed to file proxy statement with the U.S. Securities and Exchange Commission. The final sample consisted of 254 CEOs from 254 U.S. firms.

Our hypotheses imply a lagged model structure. To measure CEOs' narcissistic tendencies, we used data from the second year of each CEO's tenure (t+1) rather than the first year because the first year often has anomalies associated with succession (Chatterjee & Hambrick, 2007). We measured board power in three separate years: one year before the CEO was appointed (t-1); one year after the CEO was appointed (t+1); and two years after the CEO was appointed (t+2). Strategic change was measured in (t+2), and firm performance was measured in (t+3).

3.3.2 Measures

CEO Narcissism. We employed the measure of narcissism developed by Chatterjee and Hambrick (2011). The first indicator was the prominence of the CEO's photograph in annual reports. For this variable, we coded it as one point if the annual report included no photo of the CEO, or if there was no annual report in the measurement year; two points if the CEO was photographed with other executives; three points if the CEO was photographed alone and the photo occupied less than a half page; and four points if the CEO was photographed alone and the photo occupied more than half a page. We obtained annual reports from company websites and the EDGAR database. The second indicator was CEO prominence in company press releases. This variable represented the number of times the CEO's name appeared on the press releases divided by the total number of the press releases. We obtained the press releases from Factiva. The third indicator was the relative cash pay measure. This variable divided CEO's cash pay (salary and bonus) by the second-highest-paid executive in the company. The fourth indicator was the CEO's non-cash pay divided by the second-highest-paid executive in the company. We obtained compensation data from Execucomp. The four indicators of narcissism were positively associated with each other and the correlation coefficients of the four indicators ranged in value from $r = 0.10$ to $r = 0.15$. We built the final narcissism index by calculating the sum of the standardized values ($M = 0$, $SD = 1$) across all four measures.

Board Power. We used three indicators to measure board power (Hayward & Hambrick, 1997; Tang et al., 2011): CEO non-duality, ratio of outside directors, and equity holding of outside directors. CEO non-duality was measured as a binary variable, which was coded as 1 when the CEO did not occupy the chairperson position of the board, and as 0 otherwise. The ratio of outside directors was calculated as the number of outside (i.e., non-executive) directors who were appointed before the current CEO took office divided by the total number of directors (Wade et al., 1990; Zajac & Westphal, 1994). Equity holding of outside directors was measured as the ratio of the equity holding of outside directors to total company outstanding common shares. The data was obtained from Risk Metrics and company proxy statements. We built the final board power (BrdPwr) score by calculating the sum of the standardized values across all three measures. Board power should be treated as a formative construct (Tang et al., 2011).

Strategic Change. Following previous research (e.g., Finkelstein and Hambrick, 1990), we measured strategic change by tracing changes in a firm's key resource allocation indicators: (1) advertising intensity (advertising/sales), (2) research and development intensity (R&D expense/sales), (3) nonproduction overhead (SGA expenses/sales), (4) plant and equipment newness (net plant and equipment/gross plant and equipment), (5) financial leverage (debt/equity), (6) inventory levels (inventories/sales). The data were obtained from COMPUSTAT.

To construct our measure of strategic change, we followed Weng and Lin (2012) to calculate the industry-adjusted strategic change (industry was defined based on 4-digit codes). We first calculated the changes in these ratios between the former and current year. For example, △ firm nonproduction overhead = a focal firm's nonproduction overhead $_{t+2}$ – nonproduction overhead $_{t-1}$. We then considered the industry effect by subtracting the industry median changes in these ratios. For example, industry-adjusted nonproduction overhead = (industry median nonproduction overhead $_{t+2}$ – industry median nonproduction overhead $_{t-1}$). Thus, the industry-adjusted nonproduction overhead for each firm can be shown as (a focal firm's nonproduction overhead $_{t+2}$ – nonproduction overhead $_{t-1}$) - (industry median nonproduction overhead $_{t+2}$ – industry median nonproduction overhead $_{t-1}$). We then calculated the absolute values of these variables and standardized the absolute values within the sample. Finally, we summed standardized indicators to create a single, composite measure of strategic change (StrCha).

Firm Performance. We used two measures of firm performance: return on assets (ROA) and total stock returns (TSR). TSR and ROA have been widely used to measure firm performance (e.g., Chatterjee & Hambrick, 2007; Park et al., 2011; Peterson et al., 2012). ROA, a common accounting-based indicator for firm performance, is an indicator of how profitable a company is relative to its total assets, calculated as net income divided by total assets. TSR, a stock market measure, is calculated as changes in the stock price plus dividends paid, divided by the initial price of the stock. We obtained data on TSR and ROA from Execucomp. Again, industry effects were subtracted to obtain industry-adjusted performance indicators.

Control Variables. Our statistical models used different dependent variables, which required adjusted sets of control variables (see Table 3.1 for an overview). For models with CEO narcissism as dependent variable, we included the following controls at the CEO, board, firm and industry level. A prior CEO might exert important influence over the new CEO selection (Lorsch & Maclver, 1989; Zajac & Westphal, 1996). Therefore, we controlled for prior CEO gender, age, tenure, and ownership of stock. CEO gender was measured as a binary variable (1-male, 0-female); CEO age was measured in the year when data was collected; and CEO tenure was represented by the number of years the CEO had held the position. Further, we controlled for the possibility the new CEO was an outside hire (defined as having arrived at the firm within two years prior to becoming CEO). We obtained the CEO data from Execucomp and company proxy statements. We also controlled for board size (Zajac & Westphal, 1996), directors' age and directors' tenure in t-1, because these factors might affect the choice of a new CEO. Board size was defined as the total number of directors on the board (board size $_{t-1}$). Directors' age was measured as the average composite age of all directors on the board (director age $_{t-1}$). Directors' tenure was measured as the average number of years all directors held their positions (director tenure $_{t-1}$). The data were obtained from proxy statements and Risk Metrics. We further controlled for previous firm performance (TSR $_{t-2}$ and ROA $_{t-2}$), because a firm's prior financial performance affects the choice of new CEOs (Zajac & Westphal, 1996). We also controlled for firm size (measured as the number of employees) and firm age in t-1. Firm size influences the choice of CEO successors (Dalton & Kesner, 1983). Further, we controlled for 51 industry dummies based on two-digit SIC codes. We also included four-year dummies to control for time-specific factors.

Table 3.1 The List of Control Variables

Dependent variables	CEO narcissism	$BrdPwr_{t+1}$	$BrdPwr_{t+2}$	$StrCha_{t+2}$	Firm $Performance_{t+3}$
Control variables	Prior CEO gender	CEO gender	CEO gender	CEO gender	CEO gender
	Prior CEO age	CEO age	CEO age	CEO age	CEO age
	CEO Stock owned $_{t-1}$	CEO stock $owned_{t+1}$	CEO stock $owned_{t+2}$	CEO stock $owned_{t+1}$	CEO stock $owned_{t+1}$
	Prior CEO tenure	CEO origin	CEO origin	CEO origin	CEO origin
	CEO origin	Board $size_{t+1}$	Board $size_{t+2}$	Board $size_{t+1}$	Board $size_{t+1}$
	Board $size_{t-1}$	Director $tenure_{t+1}$	Director $tenure_{t+2}$	Director $tenure_{t+1}$	Director $tenure_{t+1}$
	Director $tenure_{t-1}$	Director age $_{t+1}$	Director age_{t+2}	Director age $_{t+1}$	Director age_{t+1}
	Director age $_{t-1}$	ROA_t	ROA_{t+1}	ROA_{t+1}	ROA_{t+1}
	ROA_{t-2}	TSR_t	TSR_{t+1}	TSR_{t+1}	TSR_{t+1}
	TSR_{t-2}	Firm $size_{t+1}$	Firm $size_{t+2}$	$ResAva_{t+1}$	$ResAva_{t+1}$
	Firm $size_{t-1}$	Firm age	Firm age	Firm $size_{t+1}$	Firm $size_{t+1}$
	Firm age	$BrdPwr_{t-1}$	$BrdPwr_{t-1}$	Firm age	Firm age
	Industry dummies	Industry dummies	Industry dummies	Munificence	Munificence
	Year dummies	Year dummies	Year dummies	Dynamism	Dynamism
				Complexity	Complexity
				Industry dummies	Industry dummies
				Year dummies	Year dummies

For models with board power as the dependent variable, we controlled for the following factors. First, we controlled for several CEO characteristics, including CEO age, gender, and stock ownership (Shivdasani & Yermack, 1999). Since CEO origin might influence board composition, we controlled for the possibility the CEO was an outside hire. Second, we controlled for board size, directors' age, and directors' tenure, which might affect board power. We also controlled for previous board power before the current CEO was appointed. Third, we controlled for firm size, firm age, and previous firm performance, because these factors can affect board composition (Hermalin & Weisbach, 1988). Fourth, we included industry dummies and year dummies.

For models with firm performance or the company's engagement in strategic change as dependent variables, the following controls were included. First, CEO age, tenure (Finkelstein & Hambrick, 1990), and gender might affect CEOs' risk tendency and thus strategic change. To control for CEOs' structural power (Finkelstein, 1992), we included in the analyses the percentage of stocks owned by the CEO. Second, we controlled for board size, directors' age, and directors' tenure, which might affect strategic change (Tang et al., 2011). We also controlled for the possibility the CEO was an outside hire, because whether a new CEO comes from inside or outside the firm might influence a company's strategic choices. Third, we controlled for firm size, firm age, and prior firm performance. Firm size and firm age influence a company's ability to acquire resources (Wales et al., 2013). Firm size has been argued to be directly related to issues of strategic change (Mintzberg, 1978). Additionally, previous firm performance has been shown to affect subsequent performance (Chen et al., 2009), and poorly performing firms are likely to initiate changes (Weng and Lin, 2012). To control for immediate resource availability, we controlled for the ratio of current assets to current liabilities (Chatterjee & Hambrick, 2007). Fourth, we controlled for three environmental-level measures, namely environmental dynamism, environmental munificence, and environmental complexity. These variables are based on earlier measures used by Keats and Hitt (1988), and Heeley, King and Covin (2006). In brief, environmental munificence was computed as the average of the regression coefficient of an industry's (four-digit SIC code) net sales and operationg income over a five-year period (from t-2 to t+2). Environmental dynamism was computed as the average of standard errors of an industry's net sales and operationg income over a five-year period (from t-2 to t+2). Environmental complexity was measures by regressing the market shares of firms in a given industry in year t+2 on the market shares of these firms in year t-2. In line with Heeley et al. (2006), we multiplied the regression coefficient by negative one so that higher numbers indicate more complex environments. The data were obtained from COMPUSTAT. Finally, we controlled for industry dummies and year dummies. As we argued with a time-lag for the effect of CEO narcissism and board power on company strategy and firm performance (Tang et al., 2011), we used data of CEO narcissism, board power, and control variables at year t+1 to predict firm strategy at year t + 2 and firm performance at year t + 3.

Endogeneity. Following Chatterjee and Hambrick (2007, 2011), we considered endogeneity in the statistical analyses. We first controlled for antecedent variables (measured in t-1) against the measure of CEO narcissism. The antecedent variables included firm age, firm revenues, ROE, and calendar-year dummies that might influence narcissistic tendencies. Second, we included ROA and TSR changes between t and t+1, because early performance improvements might stimulate narcissistic tendencies (Chatterjee & Hambrick, 2007). Third, we included CEO age, CEO stock owned, and whether the CEO was an outside hire as the contemporaneous variable measured in t+1. Among these variables, only the one-year dummy was significantly associated with CEO narcissism.

3.3.3 Results

We conducted multiple regression analyses to test the hypothesized relationships. We assessed multicollinearity problems by analyzing the variance inflation factor (VIF). The results confirmed that multicollinearity was not a critical problem in our models because all VIFs were below two.

The descriptive statistics and correlations are presented in Table 3.2. As anticipated, board power $_{t-1}$ was negatively associated with CEO narcissism $_{t+1}$ ($r = -0.19$, $p < .01$). CEO narcissism $_{t+1}$ was negatively associated with board power in t+1 ($r = -0.22$, $p < .001$) and board power in t+2 ($r = -0.26$, $p < .001$). Furthermore, CEO narcissism $_{t+1}$ was positively associated with strategic change $_{t+2}$ ($r = 0.19$, $p < .01$).

Table 3.2 Descriptive Statistics and Correlations (N=254)

Variables	Mean	St.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. $Narcissim_{t+1}$	0.00	2.36																			
2. $BrdPwr_{t-1}$	0.00	1.99	-.19																		
3. $BrdPwr_{t+1}$	0.00	1.86	-.22	.34																	
4. $BrdPwr_{t+2}$	0.00	1.83	-.26	.30	.85																
5. StrCha	0.00	3.05	.19	.05	.00	-.04															
6. ROA_{t-2}	4.84	8.52	-.19	-.02	-.01	-.01	-.15														
7. ROA_{t}	3.52	9.22	.09	-.15	-.01	.02	-.06	.37													
8. ROA_{t+1}	4.36	7.82	.01	-.08	-.04	-.03	-.08	.30	.46												
9. ROA_{t+2}	4.35	7.95	.05	-.13	-.11	-.07	-.15	.18	.38	.71											
10. ROA_{t+3}	0.61	6.28	-.05	-.06	-.01	.01	-.17	.30	.27	.33	.43										
11. TSR_{t-2}	2.84	63.31	-.11	.11	.10	.12	-.04	.24	.15	.17	.10	.13									
12. TSR_{t}	8.11	57.40	-.02	-.04	-.11	-.06	-.03	-.04	.05	.18	.10	.00	-.08								
13. TSR_{t+1}	12.22	54.87	-.05	-.04	-.04	-.05	.05	-.01	-.12	.15	.23	-.02	.05	-.10							
14. TSR_{t+2}	19.91	50.09	.03	.00	.11	.09	-.02	-.06	-.04	-.15	.13	.23	-.14	-.16	-.18						
15. TSR_{t+3}	2.81	43.80	.15	.01	-.14	-.14	.04	-.16	-.10	-.09	-.01	.07	-.03	-.07	.01	.06					
16. Director $tenure_{t-1}$	8.63	6.69	.10	.02	-.08	-.05	.04	-.03	-.06	-.07	.00	.13	.02	.07	-.11	.03	.02				
17. Director $tenure_{t+1}$	7.78	3.26	-.17	.09	.16	.20	-.05	.01	.01	-.05	.00	.01	.19	.14	-.09	-.01	-.09	.41			
18. Director $tenure_{t+2}$	7.99	3.16	-.18	.03	.17	.26	-.13	.02	.10	-.02	.01	.00	.23	.04	-.08	.01	-.12	.40	.90		
19. Director age_{t-1}	60.33	5.01	.03	.00	-.03	-.05	-.06	-.04	.10	-.03	-.03	-.18	-.01	.01	-.15	-.05	-.08	-.15	.30	.26	
20. Director age_{t+1}	62.70	36.03	.01	-.06	-.19	.00	-.03	-.03	-.02	-.03	-.03	-.01	-.05	.00	-.04	.00	.01	.02	.07	.07	.06
21. Director age_{t+2}	61.01	3.39	-.10	.08	.05	.03	-.12	-.06	-.05	-.07	-.08	-.03	.00	.02	-.16	-.02	-.09	.23	.46	.45	.55
22. Board $size_{t-1}$	9.94	2.70	-.01	.11	.06	.08	-.15	-.11	-.08	-.09	-.13	-.06	-.02	-.15	-.12	-.11	-.01	-.07	.01	.01	.19
23. Board $size_{t-2}$	9.78	2.38	-.02	.05	.07	.08	-.20	-.06	-.04	-.03	-.05	-.02	.01	-.18	-.07	-.09	.00	-.04	-.02	.01	.15
24. Board $size_{t-3}$	9.77	2.20	.03	.05	.07	.06	-.14	-.06	-.03	-.06	-.08	-.03	-.03	-.19	-.10	-.09	-.04	-.08	-.06	-.07	.19
25. Prior CEO gender	0.98	0.14	.06	-.10	-.05	-.01	-.02	-.02	.00	.00	.02	-.02	.06	-.07	-.06	.09	.05	.04	.02	.03	.10
26. New CEO gender	0.97	0.17	.05	.05	.06	.07	.06	-.05	-.04	-.02	-.02	-.01	-.02	.01	.06	.00	.06	.03	.06	.06	.00
27. Prior CEO age	59.53	6.90	-.04	-.26	-.07	.01	-.13	-.02	.10	.08	.10	-.02	.02	-.01	-.14	-.05	-.04	.21	.38	.44	.42
28. New CEO age	52.68	6.44	.04	.10	-.11	-.13	.01	-.14	-.15	-.16	-.11	-.08	-.03	.14	.02	-.07	.03	.24	.08	.03	.10
29. Prior CEO $tenure_{t-1}$	9.02	7.29	-.05	-.45	.00	.03	-.09	.06	.19	.07	.15	.14	-.01	.03	-.06	.02	-.04	.24	.40	.43	.15
30. Stock $owned_{t-1}$	2.78	5.83	.01	-.26	-.10	-.05	.00	.20	.17	.12	.18	.10	.03	-.08	.05	.07	-.01	.17	.29	.32	.04
31. Stock $owned_{t+1}$	0.78	1.40	.06	.05	.02	-.01	.25	-.13	-.08	-.05	-.06	-.16	-.02	.14	.09	.00	.02	.16	.13	.14	-.16
32. Stock $owned_{t+2}$	0.72	1.42	.02	.06	.05	.02	.30	-.16	-.12	-.04	-.07	-.26	-.03	.13	.09	-.08	-.05	.02	.11	.12	-.18
33. New CEO origin	0.27	0.45	.09	.02	-.01	-.05	.16	.00	-.03	.02	.05	-.04	-.03	.01	.07	.10	.06	-.09	-.12	-.17	-.07

34. Firm size$_{t-1}$	27.35	138.37	-.03	.07	.27	.35	-.10	.04	.04	.03	.03	.00	.04	-.01	-.03	-.01	.01	-.05	-.05	-.03	-.02
35. Firm size$_{t+1}$	26.80	138.10	-.03	.07	.28	.36	-.10	.04	.04	.04	.04	.01	.04	.00	-.03	-.01	.01	-.06	-.05	-.03	-.02
36. Firm size$_{t+2}$	27.06	143.67	-.03	.08	.28	.36	-.10	.04	.04	.04	.04	.01	.04	.00	-.03	-.01	.01	-.05	-.05	-.03	-.03
37. Firm age	63.69	50.58	-.02	.05	-.08	-.02	-.03	.06	.03	.00	.03	-.04	.01	.00	-.08	-.01	-.02	.00	.00	-.01	.03
38. ResAva$_{t+2}$	2.08	1.30	.02	-.11	.00	.02	.16	-.06	.06	.10	.17	.04	-.04	.09	.07	.11	-.07	-.11	-.03	.00	-.01
39. Munificence	0.24	0.59	.02	-.03	-.01	.00	.04	.13	.17	.34	.22	.10	.04	.11	.16	-.12	.07	.02	-.05	-.05	-.05
40. Dynamism	1.00	2.37	.02	-.05	-.07	-.07	-.02	-.05	-.06	-.01	-.03	-.06	-.10	.03	-.05	-.01	.00	.06	.04	.01	.06
41. Complexity	-0.83	1.08	.00	-.10	.03	.01	.07	.06	-.02	-.27	-.31	.05	-.06	-.02	-.08	-.07	-.40	-.01	-.01	-.01	.00

Variable	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
21. Director age$_{t+2}$	.10																				
22. Board size$_{t-1}$	.09	.19																			
23. Board size$_{t-2}$	.08	.13	.85																		
24. Board size$_{t-3}$	.09	.20	.82	.90																	
25. Prior CEO gender	.01	.00	.01	.05	-.05																
26. New CEO gender	.02	.04	-.02	-.05	-.03	.14															
27. Prior CEO age	.07	.39	.05	.09	.08	.15	.08														
28. New CEO age	.04	.30	.15	.11	.15	-.01	-.01	.05													
29. Prior CEO tenure$_{t-1}$	-.03	.07	-.21	-.18	-.18	.07	.05	.47	-.18												
30. Stock owned$_{t-1}$	-.02	.06	-.24	-.21	-.24	.05	.05	.26	-.19	.45											
31. Stock owned$_{t+1}$	-.05	-.15	-.21	-.29	-.31	-.17	.03	-.05	.03	.03	.23										
32. Stock owned$_{t+2}$	-.05	-.17	-.22	-.30	-.31	-.17	.05	-.04	.00	.01	.16	.92									
33. New CEO origin	-.06	-.18	-.09	-.09	-.12	.01	.05	-.05	-.02	-.03	-.03	-.14	-.11								
34. Firm size$_{t-1}$	.00	-.01	.22	.22	.25	.01	.02	.00	.07	-.03	-.07	-.07	-.07	-.08							
35. Firm size$_{t+1}$	.00	-.02	.21	.22	.24	-.01	.00	.00	.06	-.03	-.06	-.07	-.06	-.08	>.99						
36. Firm size$_{t+2}$	.00	-.02	.20	.21	.23	-.01	.00	.00	.06	-.03	-.06	-.06	-.06	-.08	1.00	>.99					
37. Firm age	.20	.06	.28	.30	.28	.04	-.06	.05	.19	-.15	-.18	-.18	-.15	-.02	.14	.15	.14				
38. ResAva$_{t+2}$	-.03	-.07	-.38	-.36	-.37	.03	-.03	.07	-.08	.12	.05	.08	.14	.17	-.11	-.10	-.10	-.19			
39. Munificence	.02	.02	-.17	-.14	-.13	-.01	-.02	-.04	-.08	.00	.01	.04	.02	-.07	.07	.09	.09	-.10	-.02		
40. Dynamism	.13	.14	.23	.20	.20	-.03	.06	.10	.10	.07	.04	-.09	-.07	-.02	.00	.00	.00	.10	-.13	-.06	
41. Complexity	-.01	-.03	.00	-.06	.04	.02	.01	.01	.07	.05	.02	.02	.01	-.06	-.02	-.02	-.02	-.09	-.01	-.18	-.02

Note: Coefficients greater than 0.12 in absolute value are significant at p < .05; Industry dummies and year dummies are not shown in this table.

Table 3.3 provides the results of a multiple regression analysis of CEO narcissism t+1 on board power t-1. We applied two models to test Hypothesis 1. In Model 1, we regressed CEO narcissism t+1 on all of the control variables. Model 2 reports the results from the full model, including all of the control variables and board power t-1. In Model 2, the standardized coefficient is -0.31 ($p < .001$) for board power t-1. This supports Hypothesis 1. That is, board power in t-1 is negatively associated with the selection of a narcissistic CEO in t+1. Hypothesis 2 suggests that CEO narcissism is negatively related to board power following the CEO's appointment. This hypothesis was tested with a regression analysis of board power t+1, and board power t+2 on CEO narcissism t+1 separately. The results in Table 3.4 indicate that CEO narcissism t+1 has a negative impact on board power t+1 ($\beta = -0.12$, $p < .10$) and board power t+2 ($\beta = -0.15$, $p < .05$). Thus, Hypothesis 2 is supported. In Hypothesis 3, we suggested that strategic change is more likely for high-level narcissistic CEOs. We obtained a positive and significant coefficient for CEO narcissism ($\beta = 0.18$, $p < .05$) (see Model 2 in Table 3.5), which supports Hypothesis 3. Table 3.5 also reports the effect of board power on the relationship of CEO narcissism and strategic change. The coefficient of the interaction term in Model 5 is not significant. Thus, Hypothesis 4 is not supported. Table 3.5 also shows that CEO stock owned and whether a new CEO comes from inside or outside the firm could significantly influence a company's strategic choices. Hypothesis 5 posited that CEO narcissism moderates the effect of strategic change on firm performance. We applied an SPSS macro to assess the moderated mediation effect of CEO narcissism on firm performance (For details see Preacher, Rucker, & Hayes, 2007). The results in table 3.6 show that only the coefficients of ROA are marginally significant ($\beta = -0.11$, $p < .10$). Thus, Hypothesis 5 is only partially supported.

Table 3.3 The Effect of Board Power $_{t-1}$ on CEO Narcissism $_{t+1}$

Variables	Model 1 SC	Model 2 SC
Prior CEO gender	.03	.00
Prior CEO age	$-.26^{***}$	$-.32^{***}$
Prior CEO tenure	-.08	$-.23^{*}$
CEO Stock owned$_{t-1}$	.06	.03
New CEO origin	.10	.10
Board size$_{t-1}$	-.02	-.04
Director tenure$_{t-1}$	$.23^{**}$	$.29^{***}$
Director age $_{t-1}$	$.16^{+}$	$.23^{**}$
ROA$_{t-2}$	$-.19^{*}$	$-.20^{**}$
TSR$_{t-2}$	.02	.02
Firm size$_{t-1}$	.00	.02
Firm age	-.07	-.07
BrdPwr$_{t-1}$		$-.31^{***}$
F	1.44^{*}	1.79^{***}
Adjusted R^2	.10	.17

Note: [a] *Standardized coefficients are reported.*
[b] *All VIFs are below 2.*
[c] *Industry dummies and year dummies are not shown in this table.*
[d] *i=1,2*
$^{+}$ *p< .1; * p< .05;** p< .01;*** p< .001.*

Table 3.4 The Effect of CEO Narcissism $_{t+1}$ on Board Power $_{t+1}$, Board Power $_{t+2}$

Variables	Model 1 SC(BrdPwr $_{t+1}$)	Model 2 SC(BrdPwr $_{t+1}$)	Model 3 SC(BrdPwr $_{t+2}$)	Model 4 SC(BrdPwr$_{t+2}$)
CEO gender	.02	.02	.03	.02
CEO age	$-.16^{*}$	$-.15^{**}$	$-.19^{**}$	$-.18^{**}$
CEO stock owned$_{t+i}$	.04	.05	.03	.04
New CEO origin	.01	.02	.00	.01
Board size$_{t+i}$	.08	.08	.06	.07
Director tenure$_{t+i}$	$.14^{*}$	.11	$.25^{***}$	$.22^{**}$
Director age $_{t+i}$	$-.16^{**}$	$-.16^{**}$	-.03	-.04
ROA$_t$ / ROA$_{t+1}$	.06	.06	-.04	-.05
TSR$_t$ / TSR$_{t+1}$	$-.13^{+}$	$-.13^{+}$	-.02	-.02
Firm size$_{t+i}$	$.23^{**}$	$.22^{**}$	$.31^{***}$	$.30^{***}$
Firm age	-.06	-.06	-.03	-.04
BrdPwr$_{t-1}$	$.35^{***}$	$.33^{***}$	$.27^{***}$	$.25^{***}$
Narcissism$_{t+1}$		$-.12^{+}$		$-.15^{*}$
F	2.37^{***}	2.42^{***}	2.75^{***}	2.86^{***}
Adjusted R^2	.26	.27	.31	.33

Note: [a] *Standardized coefficients are reported.*
[b] *All VIFs are below 2.*
[c] *Industry dummies and year dummies are not shown in this table.*
[d] *i=1,2*
$^{+}$ *p< .1;* * *p< .05;*** *p< .01;**** *p< .001.*

Table 3.5 The Effect of CEO Narcissism $_{t+1}$ on Strategic Change $_{t+2}$

Variables	Model 1 SC	Model 2 SC	Model 3 SC	Model 4 SC
CEO gender	.02	.02	.02	.02
CEO age	-.02	-.04	-.03	-.03
CEO stock owned$_{t+1}$	.37***	.36***	.36***	.36***
New CEO origin	.21**	.19**	.19**	.19**
Board size$_{t+1}$	-.16*	-.16*	-.17*	-.17*
Director tenure$_{t+1}$	-.04	.00	-.01	-.01
Director age $_{t+1}$	-.05	-.05	-.04	-.04
ROA$_{t+1}$	-.08	-.08	-.08	-.08
TSR$_{t+1}$	.03	.03	.03	.03
ResAva$_{t+1}$	.09	.08	.08	.08
Firm size$_{t+1}$	.09	.10	.07	.07
Firm age	.09	.10	.10	.11
Munificence	-.02	-.01	-.01	.00
Dynamism	.06	.05	.05	.06
Complexity	.16	.14	.13	.14
Narcissism$_{t+1}$		.18*	.20**	.18*
BrdPwr$_{t+1}$			.09	.09
Narcissism$_{t+1}$*BrdPwr$_{t+1}$				-.04
F	1.67**	1.80***	1.80***	1.77**
Adjusted R^2	.15	.18	.18	.18

Note: [a] *Standardized coefficients are reported.*
[b] *All VIFs are below 2.*
[c] *Industry dummies and year dummies are not shown in this table.*
$^{+}$ *p< .1;* * *p< .05;* ** *p< .01;* *** *p< .001.*

Table 3.6 The Moderated Mediation Effect of CEO Narcissism $_{t+1}$ on Firm Performance $_{t+3}$

Variables	Model 1 ROA	Model 2 TSR
CEO gender	.86	14.44
	(2.44)	(16.31)
CEO age	.01	.11
	(.07)	(.46)
CEO stock owned$_{t+1}$	-.80^{+}	-.65
	(.42)	(2.81)
New CEO origin	-1.42	-1.81
	(1.04)	(6.96)
Board size$_{t+1}$	-.36^{+}	.34
	(.21)	(1.41)
Director tenure$_{t+1}$	-.02	-.66
	(.15)	(.96)
Director age $_{t+1}$	-.01	.02
	(.01)	(.07)
ROA$_{t+1}$	.31***	-.1.27**
	(.06)	(.44)
TSR$_{t+1}$	.00	-.01
	(.01)	(.06)
ResAva$_{t+1}$	.35	-.24
	(.44)	(2.91)
Firm size$_{t+1}$	.00	.00
	(.00)	(.03)
Firm age	-.00	-.11^{+}
	(.01)	(.06)
Munificence	.03	-1.55
	(.93)	(6.22)
Dynamism	-.00	-.00
	(.00)	(.00)
Complexity	-.44	-6.82
	(.63)	(4.17)
Narcissism$_{t+1}$	-.06	.89
	(.19)	(1.29)
StrCha$_{t+2}$	-.05	.19
	(.17)	(1.14)
StrCha$_{t+2}$*Narcissism$_{t+1}$	-.11^{+}	.17
	(.06)	(.37)

Note: ^{a} Standardized coefficients are reported; values in parentheses are standard errors.
^{b} All VIFs are below 2.
^{c} Industry dummies and year dummies are not shown in this table.
$^{+}$ $p< .1$; * $p< .05$; ** $p< .01$; *** $p< .001$

3.4 Discussion

This study attempts to discern the interrelation between board power and CEO narcissism, as well as their effects on strategic change and firm performance. From a longitudinal analysis of S&P 1500 companies, we found general support for our hypotheses. Specifically, our results suggest that board power is negatively associated with the selection of a narcissistic

CEO, and CEO narcissism in turn has a negative influence on board power. We further found that CEO narcissism has a positive effect on strategic change. The results provide some support for a moderated mediation effect of CEO narcissism on firm performance.

3.4.1 The Interrelations between Board Power and CEO Narcissism

Our study makes several significant contributions to governance research on CEO selection and behavior. We draw on agency theory, power institutionalization, and power circulation theory to develop a research framework that, in a first step, links board power to CEO selection. Although a large stream of research focused on the relationship between boards and CEO selection (e.g., Borokhovich et al., 1996; Haleblian, & Rajagopalan, 2012; Lorsch & MacIver, 1989; Parrino, 1997; Tian, Zajac & Westphal, 1996), little systematic research has examined whether a powerful board will hire a narcissistic CEO. We find this link and highlight the importance of integrating personality theories with research on CEO selection in corporate governance research.

The study results also contribute to the growing literature on leaders' narcissism, a topic that has received growing attention in the upper echelon literature. Existing research on narcissism has primarily focused on exploring the positive or negative implications of narcissism in terms of leadership and individual performance (e.g., Judge et al., 2006; Kets De Vries & Miller, 1985; Maccoby, 2000). CEO narcissism as one of the most important personality dimensions has also been identified as a substantial influence on interpersonal relationships (Campbell, Foster, & Finkel, 2002; Campbell & Miller, 2011). Although some research has focused on the relationship between CEO narcissism and new-director selection, arguing that CEO narcissism is important to understanding the CEO-board relationship (e.g., Zhu & Chen, 2014 b), few empirical studies have examined how CEO narcissism influences board power. Thus, we also consider the reciprocal effect, i.e. how CEO narcissism influences board power. Findings suggest that narcissistic CEOs tend to reduce board power over time, which generates a vicious circle as weak boards tend to select narcissistic leaders, which, in turn, try to reduce board power. This study is the first to explore CEO-board relation by exploring the role of narcissism in the reciprocal relationship between board's CEO selection and CEO's influence on board power.

3.4.2 The Relationship among CEO Narcissism, Board Power, and Strategic Change

Our study also has important implications for the strategic leadership literature. Previous studies revealed the importance of CEO personality and behavior for strategic decision-making and firm outcomes (Campbell et al., 2011; Chatterjee & Hambrick, 2007; Hambrick & Mason, 1984; Simsek, Heavey, & Veiga, 2010; Tang et al., 2011). We base our arguments on power institutionalization theory and power circulation theory. Highly narcissistic CEOs tend to initiate strategic change because it allows them to expand their resources, thereby perpetuating their power, and to become the center of attention, which is an important motive for narcissistic individuals.

This study also has some implications for strategic management research by considering whether board power plays a role in the effect of CEO narcissism on strategic decisions. Although previous empirical studies have illustrated that a powerful board can limit a CEO's leeway in decision-making (Hayward & Hambrick, 1997; Tang et al., 2011), this study is the first to explore the role of board power in the relationship to CEO narcissism and strategic change. However, we found no support for this relationship in the data. This might because narcissism as a personality trait is a complex construct that combines a strong desire for attention, superiority, and affirmation (Chatterjee & Hambrick, 2007). In order to demonstrate their authority and superiority, narcissistic leaders tend to resist other's suggestions (Hogan et al., 1990) and tend to be dominant when make company strategy decisions (Campbell & Miller, 2011).

3.4.3 The Moderated Mediation Effect of CEO Narcissism on Firm Performance.

Another important contribution of this study is the recognition and exploration of the effect of CEO narcissism on firm performance. Although a growing body of literature focuses on the effects of CEO narcissism on firm strategy and performance (e.g., Chatterjee & Hambrick, 2007, 2011; Judge et al., 2006), little has been done to understand how CEO narcissism influences strategic change and firm performance. The results support the proposition that narcissistic CEOs are more likely to initiate and implement strategic change, and somewhat support the proposition that CEO narcissistic tendencies moderate the effect of such changes on firm performance. Existing research paints a complex and inconsistent picture of how strategic change impacts firm performance. Our work complements this research, but more studies are necessary to improve our understanding of these relationships.

3.4.4 Practical Implications

Our findings also have important implications for practitioners. First, the present study provides some recommendations for CEO selection. It is important that a board understand a potential candidates' narcissistic traits (Engelen et al., 2013). Narcissistic CEOs are more likely to initiate power struggles with the board of directors and tend to constrain the board's influence on strategic decision-making as they have stronger power motivation. Further, highly narcissistic CEOs have a strong desire for superiority, applause, and affirmation, which is why they are more likely to change company strategy, but might have little concern about the possibility of significant losses. In other words, having a narcissistic CEO is risky and might dampen firm effectiveness (Engelen et al., 2013). A suggestion based on our main findings is that boards consider new prospective CEOs' narcissistic tendencies because highly narcissistic CEOs might negatively affect a company's performance.

Our results also suggest that boards of directors play an important role when a firm selects a new CEO, and further show that board power is negatively associated with the selection of a narcissistic CEO. Although having a high narcissistic CEO is risky, a powerful board might reduce the effects of a highly narcissistic CEO. A powerful board could be more effective in aligning the interests of owners and managers. Thus, keeping a powerful board in the company might provide the necessary monitoring skills and resources for company management. Further, a powerful board is more likely to be involved in corporate strategy, and previous studies have found that there is a positive relationship between the board's involvement in strategic decision-making and corporate performance (Pearce & Zahra, 1991). Therefore, a company should try to create a high-powered board especially when there is a high-powered CEO, so that the board can effectively monitor management on behalf of shareholders.

3.4.5 Limitations and Further Research

Like any study, our study has several limitations. The first limitation is that the measures of CEO narcissism in our study rely on unobtrusive indicators. Although these indicators have been validated in other studies, the measure is, nevertheless, imperfect. Therefore, our measures for narcissism might need additional validation and refinement in future research.

Second, we only examined United States companies, in which CEOs generally have greater discretion, based on the country's culture, corporate governance, and economic system (Crossland & Hambrick, 2007; Hofstede, 2001). Thus, our conclusions might not necessarily apply to other samples outside the United States. Further research might thus test our research framework in different cultural contexts.

The third limitation concerns our focus CEO narcissism, as we did not examine the influence of other personality dimensions. Although narcissism is currently one of the most discussed and controversial personality dimensions of CEOs (Zhu & Chen, 2014a), future research should consider other personality dimensions, especially those that can influence CEOs' relationships with boards of directors and strategic decisions.

Fourth, we only studied the relationship between board power and narcissism of the selected CEO. Studying whether powerful boards are more likely to opt for CEOs that are similar to themselves might be important as well. For example, a powerful board might hire a new CEO who is more (or less) similar to the board members in terms of a narcissistic personality. Zajac and Westphal (1996) found that powerful boards favored a new CEO who has a specific demographic profile. It would thus be interesting to study the relationship between board members' narcissistic tendencies and the new CEO's narcissistic tendencies. Another extension of the current study is the inclusion of TMTs. Carmeli and Schaubroek (2006) pointed out that TMT behavioral integration could affect the quality of strategic decisions. Kor (2006) discussed the interaction effects of top management teams and board outsider composition on R&D intensity. Future research could thus examine TMT personality and its impact on a company's strategic decision-making processes.

Lastly, results from regression analyses provided consistent support for most, but not all, of our hypotheses. We did not obtain significant results for tests on the role of board power in the relationship between CEO narcissism and strategic change. Future research could examine processes by which a narcissistic CEO restrains boards of directors' influence on company strategy, and whether this creates tension between the board and CEO. Since a narcissistic CEO is likely to dominate the interaction with the board of directors and resist others' suggestions (Campbell & Miller, 2011), this might ultimately result in the dismissal of the CEO.

3.5 Conclusion

Our results highlight the importance of CEO personality in the dynamic relationship between a board's CEO selection and a CEO's influence on board power. Ocasio (1994) identified a power struggle between the CEO and the board of directors because both parties tend to consolidate and attempt to increase their power over time. Our findings offer progress towards understanding this power struggle by exploring the role of CEO narcissism. In our sample, powerful boards tend not to hire narcissistic CEOs. In turn, CEO narcissism has a negative impact on board power. In addition, our study reveals the important influence of CEO personality characteristics on company strategy and firm performance, which reaffirms Chatterjee and Hambrick's (2007) finding that narcissistic CEOs tend to undertake relatively bold, risky actions. Our study of CEO-board relations and their impact on company strategy has important implications for strategic management research. As Tang et al. (2011) pointed out, the power balance should be considered in a broad context and include CEOs, boards of directors and top managers.

CHAPTER 4

4 The Effects of CEO Narcissism on Risk Taking and Director Selection: Evidence from an Online Experiment

4.1 Introduction

Chief executive officers' (CEOs) personality characteristics play an important role in their decision making processes (Chatterjee & Hambrick, 2011). Existing research based on upper echelon theory (Hambrick & Mason, 1984) has attempted to explain how CEO personality characteristics, including locus of control (Miller & Toulouse, 1986), dominance (Tang, Crossan, & Rowe, 2011), and narcissism (Chatterjee & Hambrick, 2007, 2011), affect their decision making. Narcissism, defined as the degree to which an individual has an inflated self-view and strives to have their inflated self-view continuously reinforced (Campbell & Miller, 2011; Judge, LePine, & Rich, 2006) can be expected to play a prominent role in a CEO's decisions. Consequently, researchers in strategic management and organizational theory have been investigating how narcissism influences CEOs' decisions and leadership behaviors (e.g., Chatterjee & Hambrick, 2007, 2011; Gerstner, Konig, Enders, & Hambrick, 2013; Resick, Whitman, Weingarden, & Hiller, 2009; Zhu & Chen, 2014a, b). A major strand of these studies has particularly focused on the link between CEO narcissism and company strategic decisions (e.g., Chatterjee & Hambrick, 2007, 2011; Gerstner et al., 2013; Zhu & Chen, 2014a). Chatterjee and Hambrick (2007), for example, suggested that narcissistic CEOs favor a dynamic and grandiose strategy, and Gerstner et al. (2013) found narcissistic CEOs are relatively aggressive toward technological discontinuities. Furthermore, Zhu and Chen (2014a) examined the effect of CEO narcissism on company strategy by exploring the

CEO-board relationship. They pointed out that narcissistic CEOs tend to reduce the effectiveness of boards' major functions, and further demonstrated that, when deciding corporate strategies, narcissistic CEOs tend to rely more on their own prior experiences and less on the directors' prior experiences. Zhu and Chen (2014b) also stated that a CEO is more likely to select a new director who is similar in narcissistic tendency or who has worked with other similarly narcissistic CEOs before. Therefore, narcissistic CEOs' decision making is not only reflected in their influence on company strategic decisions, but also in the CEO-board relationship. With our study, we intend to further explore the role of narcissism in CEOs' strategic decisions and CEO-board relations by examining the effects of CEO narcissism on risk taking and the power of new directors. Furthermore, we also aim to analyze how past firm performance influences narcissistic CEOs' decision making. We chose an experimental setting for our analyses as most empirical studies on CEO narcissism used unobtrusive measures that are only partial and indirect proxies for narcissistic tendencies (Chatterjee & Hambrick, 2007). However, researchers have pointed out that unobtrusive measures of narcissism are imprecise and suggested that future work on CEO narcissism should measure narcissism using the Narcissistic Personality Inventory (NPI) (e.g., Chatterjee & Hambrick, 2011; Zhu & Chen, 2014b). Complementary to previous work, we applied NPI in a controlled experimental setting with participants from various occupations (i.e., not restricted to CEOs). We chose this format because it is difficult to have direct access to top executives in large companies, and top executives are reluctant to release company's strategic data or answer questions about their psychological traits (Carpenter, Geletkanycz, & Sanders, 2004; Cycyota & Harrison, 2006). Furthermore, Boone, Olffen, and Witteloostuijn (1998) pointed out experimental research in a relatively controlled laboratory setting is as important as field research and is always a fair test of theory. Therefore, the controlled experiment setting in our research is necessary and important to understand narcissistic CEOs' decision making processes.

Risk taking is fundamental to decision making and has important implications for firm survival and development (Li & Tang, 2010; Sanders & Hambrick, 2007;). Research on individual decision making at non-CEO levels have linked narcissism, typically measured by the NPI (Emmons, 1984), to risky activities such as bets (Campbell et al., 2004), gambling (Lakey, Rose, Campbell, & Goodie, 2008), sensation seeking (Emmons, 1981), and impulsivity (Foster & Trimm, 2008). Therefore, as an extension to previous research, we measured risk attitude in two ways: by self-assessment on a given scale (Dohmen et al., 2005) and hypothetical lottery questions (Eckel & Grossman, 2002). We chose these two measurements in the individual decision making setting because of their wide use in previous research. In the executive setting, empirical research has found that CEO narcissism was positively associated with the number and size of acquisitions (Chatterjee & Hambrick, 2007) and with risk-taking spending (e.g., research and development, capital expenditures) (Zhu & Chen, 2014b). In contrast, Chatterjee and Hambrick (2011) did not find a significant effect of CEO narcissism on acquisition premiums or on overall risky outlays. Following the call by Chatterjee and Hambrick (2011), we tried to elaborate on this inconsistent evidence. In our experiment, we firstly examined the relationship between narcissism and risk taking. Secondly, each participant had to take over the role of CEO in a large company, which allowed us to examine the impact of narcissism on risk taking in a business setting.

Furthermore, as aforementioned, narcissistic CEOs' decision making could also be reflected in how narcissistic CEOs arrange their relationship with the board of directors, mainly because CEOs play an important role in the director selection process (Lorsch & MacIver, 1989). Existing research has shown that in order to reduce the uncertainty that new directors may not support the CEO's leadership style and firm decisions, CEOs tend to select new directors with whom they have personal relationships (Fredrickson, Hambrick, &

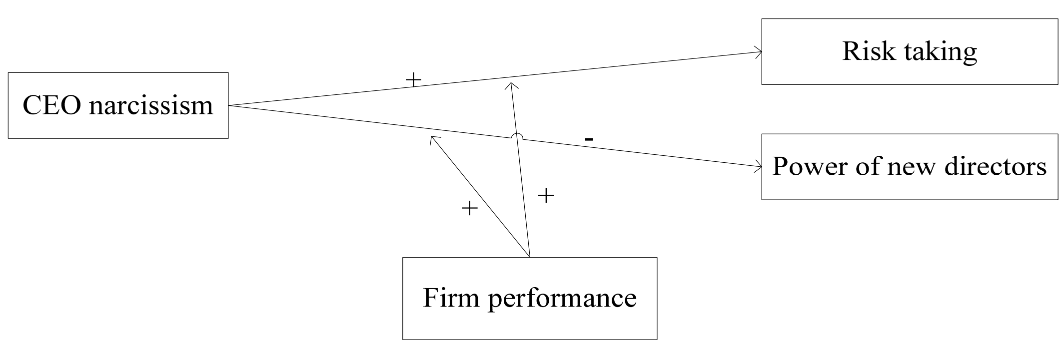
Baumrin, 1988; Mace, 1971), who are demographically similar to themselves (Westphal & Zajac, 1995), or who have similar narcissistic tendencies or prior experience with narcissistic CEOs (Zhu & Chen, 2014b). However, little theoretical or empirical research has specifically examined the role of CEO narcissism in the director selection process. Zhu and Chen (2014b) stated that CEOs are usually concerned with uncertainty when selecting a new director, and Blair, Hoffman, and Helland (2008) show that a narcissistic CEO who tends to be arrogant and power-oriented is more likely to be concerned that the new directors may not support their leadership and will impair their power. Power is the capability of individuals to exert their will and to achieve their desired goals. In corporate governance, power reflects the capacity of CEOs or directors to achieve a desired objective or result through both formal and informal means (Pfeffer, 1980). Powerful new directors have the potential to increase board power and impose constrains on CEOs' strategy decisions. Therefore, we argue that, in order to reduce the uncertainty, a narcissistic CEO will not select high power candidates.

Based on upper echelons theory, existing research indicates that CEO personality plays an important role in their decision making process and that its impact on firm decisions is moderated by environmental, organizational, and individual-level determinants of managerial discretion (Crossland & Hambrick, 2007; Hambrick & Finkelstein, 1987). However, there is a lack of research on factors that might moderate the relationship between CEO narcissism and CEO behaviors (e.g., risk taking and director selection). Since narcissists maintain an inflated sense of themselves, they tend to make decisions that are not in the best interests of their company (Chatterjee & Hambrick, 2007; Zhu & Chen, 2014a). To mitigate these negative effects, it is important to examine external factors that either strengthen or weaken the impact of CEO narcissism on firm risk taking or the power of new directors. Previous research contributed to a better understanding of the effect that narcissistic CEOs' decisions have on firm performance (e.g., Chatterjee & Hambrick, 2007; Resick et al., 2009).

For example, Chatterjee and Hambrick (2007) showed that CEO narcissism tends to generate more variability and irregular company performance. Resick et al. (2009) showed that CEO narcissism is not related to team performance. However, different from previous studies, we aim to explore whether a firm's financial performance also influences narcissistic CEOs' decision-making. Firms' financial performance provides a strong cue about a CEO's leadership ability and reflects a company's overall capability (Chatterjee & Hambrick, 2011), thus influencing how much discretion a CEO would possess, which will affect a narcissistic CEO's decision making process.

Overall, this study makes several important contributions to existing management literature. First, based on personality theories and upper echelons theory, our study aims to uncover the role of narcissism in CEOs' decision-making, which incorporates both the predictive role of CEO narcissism on risk taking and the impact that narcissism has on the power of new directors. Second, our study strives to elaborate on the moderating role firm performance has in these relationships (see research framework in Figure 4.1). Third, considering the limitations of unobtrusive measures of narcissism and the difficulty in having direct access to CEOs within large companies, we developed an experimental setting to explore the aforementioned relationships.

Figure 4.1 Overview of the Research Model



4.2 Theoretical Background and Hypotheses

CEO Narcissism. Campbell and Miller (2011) argued that narcissism consists of two parts. First, narcissists have an inflated sense of self-concept (Campbell, Rudich, & Sedikides, 2002; Judge et al., 2006). Narcissists' positive self-concept generally reflects feelings of inherent personal superiority (Emmons, 1987), uniqueness (Emmons, 1984), and entitlement (Campbell, Bonacci, Shelton, Exline, & Bushman, 2004), which captures the cognitive elements of narcissism. Second, the construct comprises motivational elements. That is, narcissistic individuals display a range of self-regulation efforts to continuously reinforce their positive self-views (Morf & Rhodewalt 2001). For example, narcissists strive to gain attention (Buss & Chiodo, 1991) and engage in various types of behaviors that invite applause and admiration (Morf & Rhodewalt 2001; Zhu & Chen, 2014b). Prior studies have consistently found that high narcissism is associated with arrogance, self-absorption, self-admiration, a sense of entitlement, and a sense of superiority (Ames, Rose, & Anderson, 2006; Emmons, 1987; Morf & Rhodewalt, 2001; Resick et al., 2009). Furthermore, there is some empirical evidence that qualities of narcissistic individuals help them to be promoted to the CEO position to begin with (Rosenthal & Pittinsky, 2006). However, there is considerable variance in narcissistic tendencies across CEOs (Chatterjee & Hambrick, 2007, 2011) and highly narcissistic CEOs tend to manage firms very differently than their less narcissistic counterparts (Zhu & Chen, 2014a).

4.2.1 The Relationship between CEO Narcissism and Risk Taking

Narcissism affects how CEOs interpret situational stimuli, which then affects their strategic decision making (Chatterjee & Hambrick, 2011). Research on narcissism has stated that narcissistic CEOs tend to believe that they are extremely talented and have high intelligence, creation, and leadership abilities (Farwell & Wohlwend-Lloyd, 1998; Judge et al., 2006; Paulhus, 1998) and think they can learn more than others from the same opportunity (Paulhus, 1998). Moreover, Campbell et al. (2004) pointed out that narcissistic individuals usually make decisions based on the biased expectation that they would perform better than others, and the presumption that they will be successful on a given task. However, behavioral decision theory suggests that decision makers' cognitive biases about their own abilities might encourage them to overestimate their problem solving capabilities, underestimate the resource requirements of risky initiatives, and underestimate the firm's uncertainties (Li & Tang, 2010). Narcissistic CEOs' cognitive biases about their abilities, brilliance, and competence might lead narcissistic CEOs to overestimate the amount and value of the information they have, underestimate the cost of a risky decision and, thus, have an overly optimistic attitude for risky actions. Therefore, these misperceptions might not only lead narcissistic CEOs to feel extraordinarily confident about their understanding of the opportunities and their judgment in a task domain, but may also lead them to interpret decision situations as less risky than they really are. Therefore, a highly narcissistic CEO is more likely to exhibit cognitive and decision making biases that increase their likelihood of taking bald and risky behaviors.

To meet their continuous need for confirmation and admiration, narcissistic CEOs tend to engage in publicly visible activities (Morf & Rhodewalt 2001; Wallace & Baumeister, 2002). Taking risky activities will help narcissistic CEOs to be the center of attention and create a sense of superiority, thus they are more likely to strive for bold, daring, and highly visible initiatives to draw attention to their vision and leadership and to have their inflated self-esteem reinforced. Furthermore, since company strategies involving innovation and pioneering can enhance their power and influence (Wales et al., 2013), a narcissistic CEO who is power-oriented is more likely to engage in high-risk projects. Research on narcissism have pointed out power as an important motivator for narcissistic leaders (Rosenthal & Pittinsky, 2006) and narcissistic leaders have a strong desire to use this power to fulfill their needs and visions (Campbell, Hoffman, Campbell, & Marchisio, 2011). Therefore, motivated by their strong desire for power and influence, a narcissistic CEO is likely to take bald and risky actions.

Hypothesis 1 (H1): CEO narcissism is positively associated with risk taking.

4.2.2 The Relationship between CEO Narcissism and the Power of New Directors

CEOs play a pivotal role in director recruitment and selection, in spite of official nominating committees (Foster, 1982; Lorsch & MacIver, 1989). Researchers have shown that CEOs tend to select directors who have similar values, attitudes, or personality (e.g., Westphal & Zajac, 1995; Zhu & Chen, 2014b), and as such new directors are more likely to support the CEO's strategic decisions and realize their respective preferences with less communication effort (Zhu & Chen, 2014b). For the purpose of reducing uncertainty that the new director will not be supportive of their leadership and strategic decisions, a more narcissistic CEO is less likely to hire high-power directors who might increase board effectiveness in opposition of the CEO's own goals. Furthermore, Wade, O'Reilly, and Chandratat (1990) pointed out CEOs can also enhance their influence over the board by appointing directors. In order to maintain and strengthen their control over the company, a more narcissistic CEO tends not to appoint a director who possesses high power.

Research on CEO-board relationships has shown that there is a conflict between CEOs and directors, and the conflict generally focuses on boards' advice and counsel functions and its monitoring function (Hillman & Dalziel, 2003). Previous studies also showed that board composition and board effectiveness (e.g., monitoring function) could be influenced by the appointment of new directors (Westphal & Zajac, 1995). The appointment of a new director with higher power might increase the power of the board, which will then increase the board's influence over a range of major decisions and impose restraints on a CEO's decision outcomes. Narcissistic CEOs tend to exaggerate their creation, intelligence, competence, and leadership ability (Farwell & Wohlwend-Lloyd, 1998; Paulhus, 1998; Judge et al., 2006) and as a result are unwilling to be controlled or restrained by the boards. Therefore, highly narcissistic CEOs will avoid candidates who might increase the level of board monitoring and control over them, while favoring new director candidates who might protect or increase their control.

Furthermore, existing research has pointed out that narcissistic individuals tend to adjust their behaviors to have their positive self-concept continuously reinforced (Morf & Rhodewalt 2001). In order to reinforce such positive self-concepts, narcissists tend to dominate other people (Bradlee & Emmons, 1992; Morf & Rhodewalt 2001). Social psychology research has shown that narcissistic leaders are especially motivated to be dominant in interactions with other group members and tend to reduce the impact of other group members' influence on teams' decision outcomes (Nevicka et al., 2011). Campbell and Miller (2011) also pointed out that narcissistic individuals tend to be dominant in making visible and task-related decisions to draw attention to their leadership. Highly narcissistic CEOs who have a strong desire for dominance are, thus, more likely to sustain and increase their influence and control over the company by hiring and promoting director candidates who might support their personal or political interests. The relative control by the CEO or board might also be changed by the selection of new directors (Westphal & Zajac, 1995), which would influence board actions and the CEO's future strategic approach (Adams, Hermalin, & Weisbach, 2010; Hermalin & Weisbach, 1988). New high power directors increase a board's power and dominance while weakening CEO's power and dominance, so highly narcissistic CEOs who tend to be dominant will avoid hiring directors who might impair their dominance. Thus, narcissistic CEOs are less likely to hire high power directors.

Hypothesis 2 (H2): CEO narcissism is negatively associated with the power of new directors.

4.2.3 Moderating Effect of Firm Performance

Based on upper echelons theory, researchers argued that executives do not always have complete latitude of action; thus, managerial discretion affects the degree to which CEOs have influence over organizational outcomes (Crossland & Hambrick, 2007; Hambrick & Finkelstein, 1987). Li and Tang (2010) further pointed out that the effects of CEOs' psychological characteristics on firm decisions could be influenced by both external and internal factors. Thus, if narcissism plays an important role in CEOs' decision making, it is necessary to identify the potential factors that could influence its impact. Building on upper echelons theory, we explored the idea that firm performance might be an important moderator of the relationship between CEO narcissism and their firm decisions.

Firm performance provides a signal about a company's overall resource conditions and its capability in managing imminent business conditions (Chatterjee & Hambrick, 2011). With varying financial performance, a CEOs' degree of discretion would change accordingly. Good performance reflects that an organization's form and fate rests within top managers' control, and also provides more opportunities and available resources to the firm, allowing CEOs higher degrees of discretion (Hambrick & Finkelstein, 1987). Furthermore, firm performance is often attributed to leaders (Eisenhardt & Bourgeois, 1988; Meindl, Ehrlich, & Dukerich, 1985). When firm performance is good, there is a strong propensity to credit CEOs with firm's success (Meindl et al., 1985). When firm performance is poor, the company often attributes the poor financial performance to the CEOs as well (Hayward & Hambrick, 1997), which increases the likelihood that the board of directors would put more restrains on CEOs' decisions and activities. Thus, a CEO is likely to have more degrees of freedom when firm performance is positive. While narcissists tend to constantly seek admiration and reinforcement of their inflated self-concepts (Campbell et al., 2004), the enhanced discretion would strengthen the effect of CEO narcissism on firm decisions.

Hypothesis 3 (H3): Firm performance strengthens the positive relationship between CEO narcissism and risk taking.

Hypothesis 4 (H4): Firm performance strengthens the negative relationship between CEO narcissism and the power of new directors.

4.3 Methods

4.3.1 Sample

In order to test our hypotheses, we conducted an online experiment on Amazon Mechanical Turk (MTurk), which, as a source of valid experimental data, allows us a diverse set of participants (Buhrmester, Kwang, & Gosling, 2011; Paolacci, Chandler, & Ipeirotis, 2011). The participants on MTurk could decide whether to take part in an experiment based on the experiment topic, compensation level, and task length. Only the participants who actually complete the experiment are eligible for compensation. Our final sample consisted of 300 participants (60% female; overall average age 30.64; 72% with Bachelor's degree or higher; 71% with work experience of six years or more).

4.3.2 Procedure

The experiment was divided into four parts, together taking about 25 minutes for each participant to complete. In the first part, we measured participants' narcissism, some control variables and participants' risk attitudes. In the second part, we used a cover story that put participants into the position of a CEO of one of the 500 largest public U.S. companies (Koch & Biemann, 2014). After a short presentation of their company and background, participants were asked to make decisions on new director selection and company acquisition plan. The latter was used to measure their risk propensity. In the third part, participants were asked to make decisions in two simulated years. We presented a short cover story about the company's financial development, which was positive or negative. Participants were then asked to make decisions on new director selection and the company's market development plan on the basis of two simulated years' of financial development. In the last part, participants answered questions regarding demographic information and the manipulation checks.

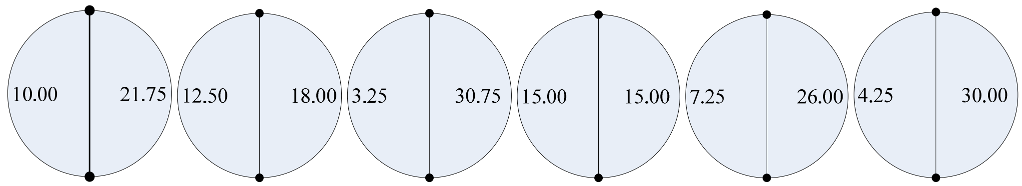
4.3.3 Measures

Narcissism. We measured narcissism with Emmons' (1984, 1987) Narcissistic Personality Inventory (NPI) (see Appendix A.1). The NPI consists of four factors with 37 items: leadership/authority (e.g., "I would prefer to be a leader" vs "It makes little difference to me whether I am a leader or not"), self-absorption/self-admiration(e.g., "I think I am a special person" vs "I am no better or no worse than most people"), superiority/arrogance (e.g., "People can learn a great deal from me" vs "There is a lot that I can learn from other people") and exploitativeness/entitlement (e.g., "I find it easy to manipulate people" vs "I don't like it when I find myself manipulating people"). The participants were asked to choose the statement from each pair that best described themselves. Cronbach's alpha for the 37-item scale was 0.91. We built the final narcissism measure by calculating the sum of the participant's responses. Therefore, the NPI scores can range from 0 to 37, and the higher scores indicate higher levels of narcissism.

Risk Taking. In the first part of the experiment, we measured self-assessed risk attitudes (risk taking 1) by asking participants to grade themselves towards risk in general and then within specific contexts. These were risks regarding financial matters, leisure and sports, career, health, and car driving (Dohmen et al., 2005). The participants indicated their willingness to take risks on an 11-point scale ranging from zero (not at all prepared to take risk) to 10 (very much prepared to take risk). We built the final risk-taking measure by calculating the simple mean of the participant's responses.

We then measured risk taking (risk taking 2) based on the commonly used procedure by Eckel and Grossman (2002). Specially, we let the participants choose from six circles that are shown in Figure 4.2 (Deck, Reyes, & Rosen, 2012). Each circle is divided in two parts and contains two possible earnings. Participants could hypothetically earn either a large or a small amount shown in the circle, each occurring with 50% probability. In this task, the probability is fixed with a varying payoff. The circle with more extreme earnings is indicative of higher risk taking. We chose these two measurements of risk taking in the individual decision-making setting because Dohmen et al. (2005) and Ding, Hartog, and Sun (2010) showed that these two measurements do not correlate very strongly even though both of them are commonly used in previous research.

Figure 4.2 Screen Image of the Risk Taking Task (Deck et al., 2012)



To measure risk-taking behavior in a business setting, participants were informed that they are in the position of a CEO of one of the 500 largest public U.S. companies. We used an adaptation of Tversky and Kahneman's (1981) Asian Disease Problem to measure risk-taking behavior (Anderson & Galinsky, 2006). Specifically, participants were informed that the company is discussing an acquisition plan. They were asked to make a choice between Plan A (do not make the acquisition) and Plan B (make the acquisition): "Plan A: We do not make the acquisition. We have an alternative investment where we could gain 240 million dollars for sure. Plan B: We make the acquisition. Our company has a 1/3 probability of gaining 720 million, but has a 2/3 probability of gaining nothing." We applied the six-point scale used by Anderson and Galinsky (2006) to measure participants' preferences, ranging from very risk averse (very much prefer plan A) to highly risk seeking (very much prefer plan B).

To measure risk-taking behavior in the third part of the experiment, we informed the participants that their companies are discussing a market development plan. They needed to make a choice between Plan A (do not invest in the oversea market) and Plan B (invest in the oversea market). "Plan A: We do not invest in the oversea market. We have an alternative investment where we could gain 320/260 million dollars for sure. Plan B: We invest in the oversea market. Our company has a 1/3 probability of gaining 960/780 million dollars, but has a 2/3 probability of gaining nothing." We also applied the six-point scale to measure participants' preferences.

Director Power. We measured new directors' power by applying two indicators of Finkelstein's (1992) measurement of prestige power: the number of corporate board appointments held and the number of non-profit board appointments held. Finkelstein (1992) also argued that the general financial condition of the firms for which a manager is a board member also reflects their power. Here, we measured the general financial condition of the firm for which the candidate was board member by identifying whether the firms were in the Forbes 500 listing of the largest U.S. companies. We presented the information including name, age, gender, current public company boards, and current nonprofit boards of the two candidates. For example, “The first candidate: Market T. Denham. Male. Age 55. Current Public Company Boards (two): Ford Motor Company; Air Lease Corporation. Ford Motor Company is in the Forbes 500 listing of the largest U.S. companies. Current Nonprofit Boards (three): American Museum of Natural History; Boy Scouts of America; Feeding America.” Participants were then asked to make a choice between the two candidates.

Control Variables. Because individuals’ decision making might be affected by their demographic characteristics, we controlled the following demographic variables: gender, age, nationality, highest achieved education, and years of work experience. Judge et al. (2006) stated that it is important to consider whether narcissism adds to the prediction of their decision making over and above other personality traits. As such, we also controlled other personality measures that might influence a CEO’s decisions (see Appendix A.2). We controlled self-esteem with 10 items (Rosenberg, 1965), 12-item self-efficacy (Bosscher & Smit, 1998), which was originally developed by Sherer et al. (1982), and the Ten-Item Personality Inventory (TIPI) developed by Gosling, Rentfrow, and Swann (2003) to measure the Big-Five personality dimensions (McCrae & Costa, 1987): extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. We used 7-point-Likert scales ranging from 1 (“disagree strongly”) to 7 (“agree strongly”) for these scales. Self-esteem and self-efficacy were calculated by taking the simple mean of all items. For Big-Five personality dimensions, we took the simple mean of the two items for the five dimensions. We also asked participants for the degree to which they identified with their role as CEO on a 7-point scale. Lastly, as a manipulation check, we asked participants how they perceived the financial situation in the respective years on a scale from 1 (“poor”) to 7 (“excellent”).

4.3.4 Results

Participants identified with their role as CEO with a mean of 5.53 on a 7-point scale and perceived the financial situation with a mean of 5.91 in positive years and 3.28 in negative years on a 7-point scale. This indicates that participants perceived our experimental treatment in the intended way. We computed variance inflation factors (VIFs) to assess multicollinearity problems. The results showed that all VIFs were below two, so multicollinearity was not a critical problem in our regression models.

The descriptive statistics and correlations are presented in Table 4.1. As anticipated, in the individual decision-making setting, narcissism was positively associated with self-assessed risk attitude (risk taking 1) ($r = 0.56$, $p < .001$) and hypothetical lottery questions (risk taking 2) ($r = 0.26$, $p < .001$). Furthermore, in the simulated business setting where the participants were put into the position of a CEO, narcissism was positively associated with risk taking ($r = 0.26$, $p < .001$). With both negative and positive firm performances in the experiment, narcissism was positively related to risk taking ($r = 0.18$, $p < .01$ and $r = 0.28$, $p < .001$, respectively).

Table 4.1 Descriptive Statistics and Correlations (N=300)

Variables	Mean	St.d.	1	2	3	4	5	6	7	8	9
1. Narcissism	14.7	8.54	(.91)								
2. RiskTaking1	6.43	2.35	.56***								
3. RiskTaking2	2.43	1.71	.26***	.19***							
4.RiskTaking_CEO	2.60	1.69	.26***	.26***	.31***						
5. RiskTaking _positive	2.86	1.76	.28***	.28***	.34***	.60***					
6. RiskTaking _negative	2.75	1.68	.18**	.25***	.15**	.40***	.29***				
7. Director Power_CEO	0.85	0.36	-.05	.00	-.03	-.03	.01	.00			
8. Director Power_ positive	0.70	0.46	.03	.09	-.02	-.11	-.03	-.06	.31***		
9. Director Power_ negative	0.81	0.40	-.06	-.06	.04	-.12*	-.07	-.11	.05	-.10	
10. Self-esteem	5.26	1.17	.07	-.02	.11	-.04	.07	-.01	-.03	.04	.12*(.90)
11. Self-efficacy	4.97	1.13	.01	-.06	.05	-.07	.05	-.05	-.10	.04	.05
12. Extraversion	3.86	1.55	.48***	.35***	.23***	.19***	.21***	.13*	-.03	.03	-.01
13. Agreeableness	5.12	1.25	-.19**	-.12*	.01	-.12*	-.09	-.08	.01	.15**	.09
14. Conscientiousness	5.34	1.26	-.07	-.14*	-.01	-.09	-.01	-.12*	-.03	-.01	.06
15. Emotional stability	4.93	1.46	.05	.02	.16**	.03	.13	-.03	-.01	.06	.03
16. Openness	5.12	1.23	.15**	.02	.09	.00	.07	.04	-.15**	-.05	.05
17. Gender	0.60	0.49	.20***	.12*	.11	.05	.12*	.02	.04	.02	.03
18. Age	30.64	10.67	-.24***	-.08	-.06	-.09	-.09	-.12*	-.05	-.02	.00
19. US dummy	0.55	0.50	-.42***	-.52***	-.12*	-.15**	-.12*	-.09	-.02	-.03	.08
20. Education	4.72	1.16	.39***	.29***	.12*	.08	.09	.09	-.05	.04	-.01
21. Work experience	5.24	1.33	-.23***	-.15**	-.11	-.07	-.04	-.10	-.11	-.09	.01
Variables	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
11. Self-efficacy	.76***	(.90)									
12. Extraversion	.31***	.30***	(.60)								
13. Agreeableness	.55***	.49***	.07	(.34)							
14. Conscientiousness	.56***	.60***	.18**	.41***	(.49)						
15. Emotional stability	.66***	.62***	.33***	.53***	.48***	(.65)					
16. Openness	.59***	.56***	.30***	.33***	.40***	.39***	(.42)				
17. Gender	.02	.05	.05	-.06	.02	.14*	-.05				
18. Age	.13*	.08	-.05	.16**	.11	.15**	.06	.00			
19. US dummy	.13*	.20***	-.13*	.06	.13*	.09	.07	-.15**	.10		
20. Education	.01	-.03	.29***	-.04	.02	.02	.09	.09	-.17**	.38***	
21. Work experience	.24***	.22***	.02	.21***	.19**	.26***	.20**	.00	.75***	.24***	-.18**

*Note: Reliability estimates (Cronbach's alpha) are shown in brackets; * p<.05;** p<.01;*** p<.001.*

Table 4.2 provides the multiple regression analyses results of self-assessed risk attitude and hypothetical lottery questions on narcissism. Model 2 and Model 4 report results from the full model, including all control variables and risk taking. In Model 2 and Model 4, the standardized coefficient is beta = 0.34 ($p < .001$) for self-assessed risk attitude and beta = 0.15 ($p < .05$) for the hypothetical lottery questions, which indicates that narcissism is positively associated with risk taking. Results in Table 4.3 further indicate that narcissism is positively associated with risk taking ($\beta = 0.17$, $p < .05$) (see Model 2). Thus, Hypothesis 1 is supported, i.e., narcissism is positively associated with risk taking. Hypothesis 2 suggested that CEO narcissism is negatively related to the power of new directors. This hypothesis was tested with a regression analysis of the power of new directors on narcissism. The results in Table 4.4 indicate that narcissism is not significantly associated with the power of new directors ($\beta = -0.06$). Thus, Hypothesis 2 is not supported. Hypothesis 3 posited that firm performance moderates the effect of CEO narcissism on risk taking. The coefficient of the interaction term in Model 2 in Table 4.5 is not significant ($\beta = 0.12$). However, we obtained a positive and significant coefficient for narcissism ($\beta = 0.17$, $p < .05$) when firm performance was positive (see Model 4 in Table 4.3). Results between narcissism and risk taking were not significant when firm performance was negative ($\beta = 0.08$) (see Model 6 in Table 4.3). These results indicate that firm performance might have some impact on the effect of narcissism on risk taking, partly supporting Hypothesis 3. Hypothesis 4 suggested that firm performance moderates the effect of narcissism on the power of new directors. The results in Table 4.5 indicate that coefficient of the interaction term (Model 4) is not significant ($\beta = 0.09$). Therefore, Hypothesis 4 is not supported.

Table 4.2 The Effect of Narcissism on Risk Taking

Variables	Model 1 Risk taking1	Model 2 Risk taking1	Model 3 Risk taking2	Model 4 Risk taking2
Self-esteem	.04	-.01	.11	.08
Self-efficacy	.03	.05	-.10	-.09
Extraversion	.29***	.16**	.17*	.11
Agreeableness	-.10	-.03	-.06	-.02
Conscientiousness	-.16**	-.12*	-.09	-.08
Emotional stability	.04	.04	.18*	.18*
Openness	.01	-.03	.05	.03
Gender	.02	-.02	.07	.05
Age	.05	.09	.09	.11
US dummy	-.45***	-.36***	-.04	.00
Education	.03	-.01	.02	.00
Work experience	-.06	-.04	-.20*	-.19*
Narcissism		.34***		.15*
F	15.23***	17.94***	2.98***	3.09***
Adjusted R^2	.36	.42	.07	.08

Note: [a] *Standardized coefficients are reported.*
[b] *All VIFs are below 2.*
* *p<.05;* ** *p< .01;* *** *p< .001.*

Table 4.3 The Effect of CEO Narcissism on Risk Taking

Variables	Model 1 Risk taking (As CEO)	Model 2 Risk taking (As CEO)	Model 3 Risk taking (Positive)	Model 4 Risk taking (Positive)	Model 5 Risk taking (Negative)	Model 6 Risk taking (Negative)
Self-esteem	.00	-.03	.05	.02	.07	.06
Self-efficacy	-.10	-.09	-.02	-.02	-.05	-.05
Extraversion	.18**	.11	.14	.08	.11	.09
Agreeableness	-.12	-.08	-.19*	-.15*	-.06	-.04
Conscientiousness	-.08	-.06	-.06	-.05	-.14	-.13
Emotional stability	.14	.14	.19*	.18*	.01	.01
Openness	.03	.01	.04	.02	.07	.07
Gender	.01	-.01	.07	.05	.01	.00
Age	-.09	-.07	-.11	-.09	-.09	-.08
US dummy	-.12	-.08	-.10	-.05	-.04	-.02
Education	-.04	-.06	-.02	-.04	.01	.00
Work experience	.04	.05	.05	.06	-.01	.00
Narcissism		.17*		.17*		.08
F	2.32**	2.54**	2.74**	3.25***	1.43	1.39
Adjusted R^2	.05	.06	.07	.09	.02	.02

Note: [a] *Standardized coefficients are reported.*
[b] *All VIFs are below 2.*
* *p< .05;* ** *p< .01;* *** *p< .001.*

Table 4.4 The Effect of CEO Narcissism on the Power of New Directors

Variables	Model 1 (As CEO)	Model 2 (As CEO)	Model 3 (Positive)	Model 4 (Positive)	Model 5 (Negative)	Model 6 (Negative)
Self-esteem	.13	.14	.00	-.01	.21*	.22*
Self-efficacy	-.17	-.17	.06	.06	-.11	-.11
Extraversion	.02	.05	.04	.02	-.01	.01
Agreeableness	.06	.05	.21**	.22**	.09	.07
Conscientiousness	.03	.03	-.07	-.07	.01	.00
Emotional stability	.04	.04	.00	.00	-.10	-.10
Openness	-.16*	-.15*	-.11	-.11	-.01	.00
Gender	.04	.05	.03	.02	.06	.07
Age	.04	.03	.11	.12	-.02	-.02
US dummy	.00	-.01	.02	.04	.10	.08
Education	-.07	-.07	.04	.04	.02	.03
Work experience	-.15	-.15	-.20*	-.19*	-.01	-.02
Narcissism		-.06		.05		-.06
F	1.40	1.35	1.53	1.45	.87	.62
Adjusted R^2	.02	.02	.02	.02	-.01	-.02

Note: [a] *Standardized coefficients are reported.*
[b] *All VIFs are below 2.*
* *p< .05;* ** *p< .01;* *** *p< .001.*

Table 4.5 The Moderator Effects of Financial Performance

Variables	Model 1 Risk taking	Model 2 Risk taking	Model 3 Director power	Model 4 Director power
Self-esteem	.04	.04	.10	.10
Self-efficacy	-.03	-.03	-.02	-.02
Extraversion	.08	.08	.02	.02
Agreeableness	-.10	-.10	.15*	.15*
Conscientiousness	-.09	-.09	-.04	-.04
Emotional stability	.10	.10	-.05	-.05
Openness	.04	.04	-.06	-.06
Gender	.02	.02	.04	.04
Age	-.09	-.09	.05	.05
US dummy	-.03	-.03	.06	.06
Education	-.02	-.02	.03	.03
Work experience	.03	.03	-.11	-.11
Narcissism	.12*	.07	.00	-.04
Financial performance	.03	-.06	-.13*	-.20*
Narcissism*performance		.12		.09
F	3.49***	3.39***	2.06*	2.00*
Adjusted R2	.06	.06	.02	.02

Note: [a] *Standardized coefficients are reported.*
[b] *All VIFs are below 2.*
* *p< .05;* ** *p< .01;* *** *p< .001.*

4.4 Discussion and Conclusion

This study examined the role of narcissism in CEO decision-making, focusing on risk-taking behavior, director selection, and company financial performance. We tested the hypothesized relationship in an online experiment and found support for some of our hypotheses in the experiment. Specifically, our results suggest that narcissism is positively associated with risk taking. Results also provide some support that firm performance moderates the effect of CEO narcissism on risk taking.

4.4.1 The Relationship between CEO Narcissism and Risk Taking

Our findings make several contributions to the management literature. Existing research on individual decision making has shown that narcissism is positively related to risk taking (e.g., Emmons, 1981; Lakey et al., 2008). We extended this line of research and designed an experimental setting where we appointed each participant as a CEO to analyze the role of narcissism in business settings. The present research received consistent results about the positive relationship between narcissism and risk taking, which emphasized the level of importance that top executives' psychological characteristics have on firm-level decisions and outcomes. Narcissistic individuals tend to make risky decisions arguably because of their inflated self-conceptions. Such inflated self-conceptions lead narcissistic CEOs to overestimate their overall problem solving capabilities, while underestimating the resource requirements of strategic initiatives and the uncertainties in the operating process. Furthermore, narcissistic CEOs' strong desire for applause, affirmation, and power (Morf & Rhodewalt, 2001) makes them strive for bold, daring actions to win applause and draw attention.

4.4.2 The Relationship between CEO Narcissism and the Power of New Directors

This study also makes a contribution to governance research. The interrelationship between CEO and the board has long been an important issue in corporate governance research (Eisenhardt, 1989; Westphal & Zajac, 1995). However, previous perspectives on director selection have mostly focused on directors' demographic characteristics, social and human capital, and their similarity to the focal CEO's narcissistic tendency as well as their prior experience with other similarly narcissistic CEOs (Westphal & Zajac, 1995; Westphal & Stern 2006; Zhu & Chen, 2014b). Furthermore, although many studies have focused on CEOs' role in the director selection process, little research has examined whether narcissism influences that process, specifically whether a narcissistic CEO would hire a high power director. Since highly narcissistic CEOs have a strong desire for control and power (Bradlee & Emmons, 1992; Morf & Rhodewalt 2001), they may not hire a high power director who might increase the power of boards and impose restraints on their strategic decisions. Although we found no support for this relationship in the data, consideration on the role of CEO narcissism in the director selection process provides opportunities for future research.

4.4.3 The Effect of Firm Performance

This study also has some implications for strategic leadership research on managerial discretion by considering whether firm performance plays a role in the effect of CEO narcissism on firm decisions. Existing research suggested that managerial discretion is an important factor that predicts the degree to which decision makers' demographic characteristics, personalities, and experiences are reflected in their corporate decisions (e.g., Crossland & Hambrick, 2007; Hambrick & Finkelstein, 1987; Li & Tang, 2010). However, there is not much research so far to identify the managerial discretion that could influence the extent to which a CEO's narcissistic tendency matters to organizational outcomes. Furthermore, there is an increasing stream of research aimed at understanding the effectiveness of narcissistic CEOs (Chatterjee & Hambrick, 2007, 2011; Resick et al., 2009; Wales et al., 2013), but with inconclusive results thus far. Resick et al. (2009), for example, found that narcissism has no relationship to team performance, while Chatterjee and Hambrick (2007) pointed out CEO narcissism is positively associated with firm performance variance. However, little research has examined whether a firm's financial performance influences narcissistic CEOs' decision making strategy. Firm performance, as an organization-level determinant of managerial discretion, reflects a CEO's leadership ability, and a company's overall capability should moderate a narcissistic CEO's major corporate decisions. Despite the fact that we found evidence that alternating firm performance does not significantly affect a narcissistic CEO's firm decisions, identifying firm performance as the potential organization-level determinant of managerial discretion in narcissistic CEO's decision making processes makes a path for future studies.

4.4.4 Practical Implications

Our results suggest that CEO narcissism affects company decision making. A highly narcissistic CEO usually makes strategy decisions that are not in the best interests of their company mainly because the CEO tends to overestimate their abilities, brilliance, and competence and tends to constantly engage in activities that reinforce their inflated self-concept. It is thus important to strengthen a company's monitoring mechanism to make highly narcissistic CEOs' decisions more effective. The board of directors plays an important role in a firm's strategic decisions (Westphal & Zajac, 2013). A board of directors could also prevent managers from engaging in self-interested behaviors (Shleifer & Vishny, 1997). Thus, it is might be an ideal governance arrangement to couple narcissistic CEOs with powerful boards. Furthermore, the positive effect of narcissism on risk taking also provides some recommendations on CEO selection. Different companies in different situations may have different requirements for risk-taking behaviors (Jordan, Sivanathan, & Galinsky, 2011). For example, in novel or chaotic situations, a company might encourage risk taking, thus driving the company to assess narcissistic tendencies in their routine screening when they hire a CEO. Additionally, NPI, as the most important instrument in identifying narcissistic qualities, might play an important role in identifying narcissistic CEOs.

4.4.5 Limitations and Further Research

Like any study, our study has several limitations. The first limitation is that we gathered the data from an online experiment on MTurk. We designed the experiment on MTurk, and thus our data might differ from an experiment conducted with actual CEOs. However, CEOs in large companies are mostly unwilling to take part in this kind of study and we therefore argue that our setting offers an adequate setting to test our research framework. Previous research showed that participants with diverse backgrounds on MTurk provide high quality and reliable data (Buhrmester, et al., 2011; Paolacci, et al., 2011). We also have pointed out that the participants sufficiently identified with their role as a CEO and adequately perceived the financial situations presented in the study. Furthermore, other researchers have successfully used non-CEO samples to study CEO narcissism. For example, Peterson et al. (2012) first validated narcissism scales with a sample of MBA students and then used the scale in studies with CEOs. Boone et al. (1998) designed an experimental setting to explore the relationship between the features of TMTs and organizational performance. Thus, we would not expect that our conclusions would show a significant difference with a sample of actual CEOs.

However, collecting such data from top executives in field studies is still necessary to refine our findings. Since it is difficult to collect data from top executives, future CEO-level research could also combine online experiments with unobtrusive measures that use data from publicly available sources.

Second, results from our online experiment provided consistent support for some, but not all, of our hypotheses. The effect of CEO narcissism on the power of new directors was not supported in the data. Future research might consider narcissistic CEOs' other decisions on director selection, such as whether highly narcissistic CEOs tend to hire highly narcissistic directors, to help us further understand the CEO-board relationships. Furthermore, we did not find support for the moderating role of firm performance on narcissistic CEOs' decision-making processes. Hambrick and Finkelstein (1987) identified environmental, organizational, and individual determinants of managerial discretion. At the environmental level, future research could examine whether market munificence, market complexity, and market uncertainty affect narcissistic CEOs' managerial discretion, and the relationship between CEO narcissism and firm risk taking, the power of new directors, and other firm decisions. At the individual level of managerial discretion, future research could consider whether CEO power influences narcissistic CEOs' decisions on risk taking and director selection.

CHAPTER 5

5 Conclusion

Although the three essays in this dissertation address different research issues, they complement each other and generally focus on the role of CEO narcissism in company management. Chapter 2 examines the relationship between a CEO's social status, CEO narcissism, and firm performance. This chapter aims to disentangle the causal relationships by means of multiple common factors, crossed-lagged regression models, and DID models. The findings from Chapter 2 indicate a reciprocal influence between a CEO's social status and CEO narcissism. That is, CEOs with higher social status will be more narcissistic than CEOs with a relatively lower social status, and CEOs with higher narcissistic tendency tend to have a higher social status. Chapter 3 draws attention to the CEO-board relationship and investigates the interrelations between board power and CEO narcissism, and their effect on a firm's strategic change and firm performance. Based on a five-wave longitudinal design, our results suggest that a powerful board tends not to hire narcissistic CEOs. CEO narcissism is, in turn, negatively associated with board power following the CEO's appointment. Furthermore, a CEO's narcissism fosters strategic change. We further found some support that CEO narcissism moderates the effect of strategic change on firm performance. These findings help increase our understanding of the role boards play in the CEO selection process, how narcissistic CEOs manage their relations with the board, and how CEOs and boards influence company strategy. Focusing on narcissistic CEOs' decision making processes, Chapter 4 examines the relevance of CEO narcissism for firm risk taking and director selection, and further develops the moderating role of firm performance in these relationships. Drawing upon upper echelons theory and personality theories, we developed and tested hypotheses in an online experiment with 300 participants. Our results suggest that narcissism is positively associated with risk taking both in an individual decision making setting and a simulated business setting. We further found in our simulation that narcissistic CEOs' decisions on risk taking and director selection were not significantly influenced by the company's financial development. All in all, the three chapters try to explore three research questions: the role of narcissism in influencing CEOs' decisions and behaviors, the effectiveness of narcissistic CEOs, and whether and how individual and organizational factors influence a CEO's narcissistic tendency or their decision making processes. The three essays complement each other and provide valuable insights for theoretical development and managerial practices.

5.1 Theoretical Implications

This dissertation contributes to emerging research that focuses on CEO personality, particularly CEO narcissism, in many ways. The concept of CEO narcissism has received growing attention in upper echelons literature since Chatterjee and Hambrick (2007) introduced this concept in the management context. Existing research that examines narcissism at the CEO level has explored different research questions and mainly focuses on the effectiveness of narcissistic CEOs (Chatterjee & Hambrick, 2007; 2011), narcissistic CEOs' strategic decisions (Chatterjee & Hambrick, 2007; Gerstner et al., 2013), the CEO-board relationship (Zhu & Chen, 2014a, b), the CEO-Top Management Team (TMT) relationship (Reina et al., 2014), and so on. In line with existing research that aims to uncover the effectiveness of narcissistic CEOs, especially the relationship between CEO narcissism and firm performance, Chapter 2 examines whether there is a reciprocal relation between CEO narcissism and firm performance. Chapter 3 explores the moderated mediation effect of CEO narcissism on firm performance, and Chapter 4 attempts to discover whether firm performance in turn influences a narcissistic CEO's decision making process. Our results somehow support the proposition that CEO narcissism moderates the effect of strategic changes on firm performance. Furthermore, our findings also suggest that a firm's financial performance could not influence a CEO's narcissistic tendency or decisions. As aforementioned, existing research has painted a complicated picture of the relationship between CEO narcissism and firm performance, and our work complements this stream of research, discovering that the link between CEO narcissism and firm performance is not as simple as direct positive or negative effects.

Furthermore, this dissertation also enriches the understanding of the link between CEO narcissism and company strategic decisions. Existing research has shown that highly narcissistic CEOs tend to make bold and risky decisions (e.g., Chatterjee & Hambrick, 2007, 2011). In line with this stream of research, Chapter 3 applies the unobtrusive indicators of narcissism, first linking CEO narcissism to strategic change, and then examining the moderating role of board power in that relationship. Chapter 4 employs the NPI to explore the relationship between narcissism and risk taking in both individual decision making settings and business settings. The findings obtained from Chapter 3 and Chapter 4 show that CEO narcissism is positively associated with strategic change and risk taking, and the results also suggest narcissistic CEOs' decision making could not be significantly influenced by the moderators, board power, and firm performance. These findings are consistent with previous viewpoints that narcissists favor bold decisions and behaviors, and that narcissistic leaders tend to be dominant and, thus, are more likely to ignore objective performance when making company strategy decisions (Chatterjee & Hambrick, 2011).

Additionally, this dissertation extends the existing research on CEO-board relationships. Specifically, the longitudinal study in Chapter 3 explores the interrelation between board power and CEO narcissism. Chapter 4 conducts an online experiment on

MTurk to examine the effect of CEO narcissism on the power of new directors. Previous studies stated that boards play an important role in selecting and dismissing top-management team members (Ruigrok, Peck, & Keller, 2006), and there are some researchers who pointed out that CEOs in turn play an important role in the director selection process (Lorsch & MacIver, 1989). However, previous perspectives on CEO selection or director selection have mostly focused on the demographic characteristics (Westphal & Zajac, 1995; Westphal & Stern, 2006; Zhu & Chen, 2014b). Zhu and Chen (2014b) suggested CEO narcissism is important in understanding CEO-board relationships; thus, it is necessary to integrate personality theories with studies on CEO selection or direction selection. Chapter 3 implicitly indicates that board power is negatively associated with the selection of a narcissistic CEO, which enriches the understanding of the CEO selection process. Although Chapter 4 finds no support for the relationship between CEO narcissism and the power of new directors, considering the role of CEO narcissism in the director selection process illustrates a direction for future research. In order to explain how narcissistic CEOs deal with their relationship with the board of directors, we not only addressed the link between CEO narcissism and director selection, but also explored how narcissistic CEOs influence board power after their appointment. Existing studies have shown that boards of directors tend to exert more and more influence on strategic decision making (see review by Westphal & Zajac, 2013). A narcissistic CEO who has a strong desire for power and control is more likely to have a conflict with the board of directors, especially a powerful board. Uncovering that a new, narcissistic CEO has a negative impact on board power sheds new light on CEO-board relations.

Moreover, the causal relations between a CEO's social status and CEO narcissism, which are found in Chapter 2, shed light on the development of personality traits over time. Existing research has pointed out that personality traits would continue to develop throughout adult life (e.g., Wood et al., 2013). Our conclusion is consistent with this evidence that social roles (e.g., careers, family, and community) are the driving mechanisms of personality development. Furthermore, we also find that personality traits can, in turn, influence individuals' social activities. The findings from Chapter 3 and Chapter 4 suggest board power and firm performance could not significantly affect a narcissistic CEO's decisions and behaviors. Yet, the dynamic relationship between CEO narcissism and a CEO's social status as uncovered in Chapter 2 provides opportunities to understand how CEOs' personalities could influence and be influenced by their social activities.

5.2 Practical Implications

This dissertation also has some important and useful implications for practitioners. Our dissertation implies that a highly narcissistic CEO might bring a negative influence to the company in the long term. Chapter 3, for instance, indicates that CEO narcissism is negatively associated with board power and positively associated with strategic change following their appointment. Chapter 4 suggests that CEO narcissism is positively associated with risk taking. Thus, highly narcissistic CEOs have the potential to dampen firm effectiveness (Engelen et al., 2013). Furthermore, narcissism is usually considered to be a dark personality characteristic in the study of CEO leadership (Chatterjee & Hambrick, 2007; Judge et al., 2006; Lubit, 2002; Maccoby, 2003); however, it appears that the qualities of narcissistic individuals often help them to be promoted to the CEO position (Rosenthal & Pittinsky, 2006), which represents a potential concern for companies during their CEO recruitment and selection process. Moreover, existing research also showed that the owners and managers might be seduced to hire a highly narcissistic leader because narcissists tend to perform better in the personnel selection interview context (Brunell et al., 2008; Paulhus et al., 2010). Therefore, CEO candidates' narcissistic tendencies should be carefully assessed.

The most important instruments, such as the NPI, might play an important role in identifying narcissistic successors. Furthermore, some research has also pointed out that narcissism will bring a positive influence in novel or chaotic situations (e.g., Campbell et al., 2011). Thus, a company should appoint an appropriate CEO based on their own requirements. For example, companies focusing on long-term performance should avoid higher levels of narcissism during their CEO selection process. A company emphasizing rapid leader emergence or public performance should consider selecting higher levels of narcissism during their CEO selection process (Campbell et al., 2011).

In addition, the dissertation also provides some suggestions for the CEO-board relationship. Chapter 3 shows that board power is negatively associated with the selection of a narcissistic CEO, which indicates that a powerful board could be more effective in monitoring and advising company management. Thus, it is important to have a powerful board in corporate governance, especially when the company has a highly narcissistic CEO. Furthermore, the findings obtained in Chapter 2 show that a CEO's social status is positively associated with CEO narcissism, which means a CEO's narcissistic tendency would continue to develop because of their social activities. Since a CEO's personality development will influence his/her objectives and behaviors in corporate governance, it is important for the board of directors to understand the development of CEO narcissism. Thus, in addition to assessing a successor's narcissistic tendency before he/she is appointed, a comprehensive performance evaluation system should be built to prevent a narcissistic CEO's continued advancement if a narcissistic successor is already recruited into the company. All in all, the CEO-board relationship is complicated and should be carefully managed. To develop an effective working relationship between a CEO and board of directors, the first suggestion is to couple narcissistic CEOs with powerful boards. Another suggestion is for the board of directors to understand the development of CEO leadership and power, especially the evolution of the CEO's personality, which has an important influence in their objectives and behaviors.

5.3 Limitations and Future Research

Although this dissertation represents an important step in examining the important roles of executive characteristics in corporate governance, it still has several limitations that future research should address. The first limitation is that the lack of examination of the CEO-TMT interplay. Hambrick (1987) pointed out that strategic leadership should include the roles of CEOs, TMTs, and boards of directors. Chapter 2 aims to disentangle the causal relationship between the CEO's social status and CEO narcissism, which centers on individual executive traits. Chapter 3 emphasizes the interrelations between board power and CEO narcissism and their effect on a firm's strategic change. Chapter 4 focuses on narcissistic CEOs' decisions when taking risks and during director selection. Although Chapters 3 and 4 examine intersections among groups of strategic leaders, none of them capture the role of TMTs, who interact most closely with CEOs and boards. Research on top management teams have recognized that TMT characteristics play an important role in firms' strategic choices (see Carpenter, Geletkanycz, & Sanders, 2004 for a comprehensive review). CEOs usually shape the perceptions and reactions of lower level managers through collective perceptions, decisions, and actions of the TMTs (Carmeli & Schaubroek, 2006). As aforementioned, narcissism is one of the most important and controversial personality dimensions of CEOs. Therefore, it is necessary to examine the interface between a narcissistic CEO and his/her executive peers. Future research could explore how CEO narcissism influences TMT turnover. Narcissistic CEOs tend to be self-interested with hostility toward criticism, and are unlikely to have an equitable exchange with other TMT members (Lubit, 2002; Resicket al., 2009). Thus, a highly narcissistic CEO does not generally get along with his/her executive peers, which might lead to the dismissal and voluntary departure of other TMT members. Also interesting would be to explore deep-level TMT compositions, such as personality traits, through which CEO personality traits or leadership behaviors can exert effects on strategic choices and performance outcomes. For example, further exploration could include whether narcissistic CEOs will select top management team members who have a similar narcissistic tendency and whether CEO narcissism moderates the relationships between TMT personality composition and organizational effectiveness.

Another limitation of this dissertation is that it mainly focuses on CEO narcissism and does not examine the influence of other CEO personalities in corporate governance. Although Chapter 2 includes the effects of other individual executive traits, such as social status, on CEO narcissism and firm outcome, both Chapters 3 and 4 only focus on how narcissistic CEOs manage companies differently. Even though narcissism is a fundamental personality trait of CEOs and has been distinguished from other personality dimensions in both concept and empirical study (Campbell & Miller, 2011; Paulhus & Williams, 2002), it is not the only personality dimension that could influence a CEO's decisions and behaviors. Future studies can thus consider both narcissism and other personality dimensions, which will help to more fully understand a CEO's role in corporate governance. Narcissism is usually regarded as a dark-side personality characteristic in CEO leadership studies (Chatterjee & Hambrick, 2007; Judge et al., 2006; Lubit, 2002; Maccoby, 2003). Adopting bright-side personality characteristics, such as core self-evaluations (CSE), to better understand CEOs' decision making processes and their relationships with boards of directors would be an interesting addition to the study. Core self-evaluations represent a personality trait that encompasses an individual's conclusions or bottom-line evaluations about their own abilities and control (Judge, Locke, & Durham, 1997). High-CSE leaders are more likely to be concerned with the talents and needs of individual employees and promote the fair exchange of rewards for performance (Resick et al., 2009). Both narcissism and CSE could influence CEOs' strategic decisions and their relationships with other group members, but high-CSE leaders tend to manage firms very differently from high-narcissistic leaders. Therefore, a future study could examine how narcissism and CSE influence a CEOs' decisions and behaviors differently to help us better understand the relative influence of narcissism in corporate governance.

A third limitation lies in each essay's U.S. sample. Chapters 2 and 3 use U.S. companies listed on the S&P Composite 1500. Chapter 4 conducts an online experiment, with the final sample consisting of 300 participants, where 55% are American. Existing research has pointed out that executives' status and actions are different in different parts of the world (Crossland & Hambrick, 2007, 2011). Crossland and Hambrick (2007), for example, found that CEOs had a larger impact on firm performance in U.S. than CEOs in Germany and Japan due to the differences in cultural values, firm ownership profiles, and governance. Therefore, further investigation into what extent national characteristics, particularly the level of discretion, impacts the study's findings would also be an interesting component. China, for example, has long been considered to focus on collectivism rather than individualism, and has its own distinct social and economic systems (Redding, 1993). The Chinese context usually grants less managerial discretion because its particular context offers an opportunity to discover additional discretion-limiting factors: state ownership and CEO political appointment (Li & Tang, 2011). Thus, the Chinese context is quite different from the U.S., whose individualism and tolerance for uncertainty grants a high level of discretion (Crossland & Hambrick, 2011; Hofstede, 2001). Due to different levels of managerial discretion, executives in the U.S. and China will act quite differently when it comes to corporate governance. Furthermore, existing research has pointed out people's perceptions, preferences, and behaviors differ systematically between nations (Hall & Soskice, 2001). Therefore, a CEO's narcissistic tendency might differ across different countries. Future study could explore whether CEOs' narcissistic tendencies in China are different from those in the U.S., whether narcissistic CEOs matter more in the U.S., and whether there is a cross-national difference in CEO-board relationships.

In sum, in this dissertation, three essays address different issues regarding the important role of CEO narcissism in company management. Our findings offer progress towards understanding how CEO narcissism influences organizational behaviors, how CEO narcissism influences the CEO-board relationship, and how CEO narcissism influences and can be influenced by firm performance and social roles. These findings are empirically validated by means of multisource data and different statistical methods to contribute to upper echelons and narcissism literature.

Appendix A

Appendix to Chapter 4

A.1 Measurement Items of Narcissism

Please read each pair of statements and then choose the one that is closer to your own feelings about yourself (either "A" or "B").

1. A. I have a natural talent for influencing people.
   B. I am not good at influencing people.
2. A. Superiority is something that you acquire with experience.
   B. Superiority is something you are born with.
3. A. I would do almost anything on a dare.
   B. I tend to be a fairly cautious person.
4. A. When people compliment me I sometimes get embarrassed.
   B. I know that I am good because everybody keeps telling me so.
5. A. I would be willing to describe myself as a strong personality.
   B. I would be reluctant to describe myself as a strong personality.
6. A. There is a lot that I can learn from other people.
   B. People can learn a great deal from me.
7. A. I prefer to blend in with the crowd.
   B. I like to be the center of attention.
8. A. Beauty is in the eye of the beholder.
   B. I have good taste when it comes to beauty.
9. A. I am no better or no worse than most people.
   B. I think I am a special person.
10. A. I am not sure if I would make a good leader.
    B. I see myself as a good leader.
11. A. I am assertive.
    B. I wish I were more assertive.
12. A. I like having authority over other people.
    B. I don't mind following orders.

13. A. I find it easy to manipulate people.
    B. I don't like it when I find myself manipulating people.
14. A. I insist upon getting the respect that is due me.
    B. I usually get the respect that I deserve.
15. A. I don't particularly like to show off my body.
    B. I like to display my body.
16. A. I can read people like a book.
    B. People are sometimes hard to understand.
17. A. I usually dominate any conversation.
    B. At times I am capable of dominating a conversation.
18. A. I am envious of other people’s good fortune.
    B. I enjoy seeing other people have good fortune.
19. A. My body is nothing special.
    B. I like to look at my body.
20. A. I try not to be a show off.
    B. I am apt to show off if I get the chance.
21. A. I always know what I am doing.
    B. Sometimes I am not sure of what I am doing.
22. A. I am much like everybody else.
    B. I am an extraordinary person.
23. A. Sometimes I tell good stories.
    B. Everybody likes to hear my stories.
24. A. I expect a great deal from other people.
    B. I like to do things for other people.
25. A. I will never be satisfied until I get all that I deserve.
    B. I take my satisfactions as they come.
26. A. Compliments embarrass me.
    B. I like to be complimented.
27. A. I have a strong will to power.
    B. Power for its own sake doesn't interest me.
28. A. I get upset when people don't notice how I look when I go out in public.
    B. I don't mind blending into the crowd when I go out in public.
29. A. I like to look at myself in the mirror.
    B. I am not particularly interested in looking at myself in the mirror.
30. A. I really like to be the center of attention.

B. It makes me uncomfortable to be the center of attention.

31. A. I am more capable than other people.
    B. There is a lot that I can learn from other people.
32. A. Being an authority doesn't mean that much to me.
    B. People always seem to recognize my authority.
33. A. I would prefer to be a leader.
    B. It makes little difference to me whether I am a leader or not.
34. A. I am going to be a great person.
    B. I hope I am going to be successful.
35. A. People sometimes believe what I tell them.
    B. I can make anybody believe anything I want them to.
36. A. I am a born leader.
    B. Leadership is a quality that takes a long time to develop.
37. A. I can usually talk my way out of anything.
    B. I try to accept the consequences of my behavior.

A.2 Measurement Items of Other Personalities

Please read the following statements which are dealing with your general feelings about yourself and indicate the extent to which you agree or disagree with each statement.

7-point likert scale: 1=disagree strongly, 2=disagree moderately, 3=disagree a little, 4=neither agree nor disagree, 5=agree a little, 6=agree moderately, 7=agree strongly

1. I feel that I'm a person of worth, at least on an equal plane with others.
2. I feel that I have a number of good qualities.
3. All in all, I am inclined to feel that I am a failure.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself.
9. I certainly feel useless at times.
10. At times I think I am no good at all.
11. I see myself as extraverted, enthusiastic.

12. I see myself as critical, quarrelsome.
13. I see myself as dependable, self-disciplined.
14. I see myself as anxious, easily upset.
15. I see myself as open to new experiences, complex.
16. I see myself as reserved, quiet.
17. I see myself as sympathetic, warm.
18. I see myself as disorganized, careless.
19. I see myself as calm, emotionally stable.
20. I see myself as conventional, uncreative.
21. If something looks too complicated, I will not even bother to try it.
22. I avoid trying to learn new things when they look to difficult.
23. When trying something new, I soon give up if I am not initially successful.
24. When I make plans, I am certain I can make them work.
25. If I can't do a job the first time, I keep trying until I can.
26. When I have something unpleasant to do, I stick to it until I finish it.
27. When I decide to do something, I go right to work on it.
28. Failure just makes me try harder.
29. When I set important goals for myself, I rarely achieve them.
30. I do not seem to be capable of dealing with most problems that come up in my life.
31. When unexpected problems occur, I don't handle them very well.
32. I feel insecure about my ability to do things.

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