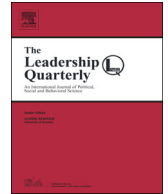




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CEO humility, narcissism and firm innovation: A paradox perspective on CEO traits☆☆☆★

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ABSTRACT

We examine how two seemingly contradictory yet potentially complementary CEO traits—humility and narcissism—interact to affect firm innovation. We adopt a paradox perspective and propose that individuals can have *paradoxical traits* and that, in particular, humility and narcissism can coexist harmoniously, especially among the Chinese, whose philosophical tradition embraces paradoxical thinking and behaving. CEOs that are both humble and narcissistic are hypothesized to be more likely to have socialized charisma, to cultivate an innovative culture, and to deliver innovative performance. Two studies using multisource data involving 63 CEOs, 328 top managers, and 645 middle managers in Study 1 and 143 CEOs and 190 top managers in Study 2 support the hypotheses and point to new directions for studying CEO traits and their effects on firm outcomes.

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Innovation, or the processes and outcomes of firms in developing and producing new products, services, markets, methods of production, and/or management systems, is “widely regarded as a critical source of competitive advantage” for firm survival and success (Crossan & Apaydin, 2010, p. 1154). Chief executive officers (CEOs) are essential for driving innovation. Steve Jobs, CEO of Apple was publicly lauded for successfully leading innovation, whereas Olli-Pekka Kallasvuo, CEO of Nokia, was dismissed for failing to do so. What differences might allow CEOs to successfully promote innovation? Perhaps the driving force is proactive personality (Kickul & Gundry, 2002), overconfidence (Galasso & Simcoe, 2011), quest for gaining future attention (Yadav, Prabhu, & Chandy, 2007), or self-directive values (Berson, Oreg, & Dvir, 2008). However, as shown in a recent meta-analysis, the leadership – innovation relationship is highly heterogeneous, leading Rosing, Frese, and Bausch (2011) to propose that a combination of leadership styles, rather

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than any particular one, might be more predictive of innovation. Building on that idea, we examine whether two seemingly contradictory yet potentially complementary CEO traits, humility and narcissism, may interact to affect a CEO's ability to drive innovation.

Research on CEO humility and CEO narcissism has largely evolved along parallel but independent paths. Humility is grounded in a self-view of subordination to a greater power and is behaviorally manifested as self-awareness, appreciation of others, and openness to self-improvement (Morris, Brotheridge, & Urbanski, 2005; Ou et al., 2014; Owens, Johnson, & Mitchell, 2013). Humble CEOs tend to empower top and middle managers, prefer pay parity, use ambidextrous strategies, and deliver sustainable firm performance (Collins, 2001; Ou, Waldman, & Peterson, in press; Ou et al., 2014). Yet, they may lack charisma and may fail to perform in dynamic industries (Chatterjee & Hambrick, 2007; Collins, 2001).

Extreme narcissism is a serious psychological disorder (American Psychiatric Association, 2000), but subclinical narcissism—often in the form of grandiose narcissism—is increasingly recognized as a normal personality trait (for reviews, Emmons, 1987; Grijalva, Harms, Newman, Gaddis, & Fraley, 2015). In line with the leadership literature, we focus on the grandiose form of narcissism in which individuals have inflated self-views and crave affirming recognition (Chatterjee & Hambrick, 2007; Galvin, Lange, & Ashforth, 2015; Zhu & Chen, 2015). CEOs that possess grandiose narcissism tend to prefer dynamic strategies and extremely risky investments. They can quickly recapture firm performance after crises, but their performance often fluctuates extremely; they pay less attention to objective performance cues and more attention to social praise (Chatterjee & Hambrick, 2007; Zhu & Chen, 2015). Humility and narcissism may both have positive and negative organizational consequences, but could they be complementary in a way that enhances their benefits, suppresses their drawbacks, and fosters innovation? We explore that possibility by adopting a paradox perspective (Smith & Lewis, 2011).

Although humility and narcissism might seem unlikely to coexist in one individual, the paradox perspective suggests that two conflicting states can coexist and that the combination may promote greater creativity and productivity (Eisenhardt, 2000; Lewis, 2000). Owens, Wallace, and Waldman (2015) recently confirmed that followers are highly engaged and perform well when their supervisors have both humility and narcissism. Numerous anecdotal examples also show that many innovative CEOs are both humble and narcissistic. Apple's late CEO Steve Jobs was able to temper his narcissism with humility during his second reign and consequently led the history-making innovation of the iPhone (Owens et al., 2015). Similarly, Jack Ma, who founded Alibaba and revolutionized China's e-commerce, was humble enough to allow his customers to share the glory of ringing the opening bell for the historic IPO (Picker, 2014), but is also known for entertaining his employees by wearing lipstick and wild wigs on stage (MacLeod, 2014), - an attention-grabbing behavior often associated with narcissism. In interviews, he has shared audacious plans for the company but has also cautioned against ego inflation, leaving the media to describe him as “crazy” yet “charmingly humble” (MacLeod, 2014).

We explore whether, how, and why CEO humility and narcissism can coexist and influence firm innovation. First, we use the paradox perspective and provide theoretical and empirical support showing that humility and narcissism can coexist and that the combination can be beneficial. The traits are complex self-based traits that consist of contradictory cognitive, motivational, and behavioral components (Chatterjee & Hambrick, 2007; Ou et al., 2014). Their coexistence aligns with research on multiple self-concepts (Markus & Wurf, 1987; McConnell, 2011), dual motivations (Garcia & Crocker, 2008), and behavioral complexity (Denison, Hooijberg, & Quinn, 1995). Chinese cultural tradition further supports the possible coexistence of humility and narcissism among Chinese CEOs (Peng & Nisbett, 1999), the focus of our empirical studies.

Second, we propose that humility and narcissism can interact to enhance CEOs' ability to manage innovative culture and performance. Recognitions of possessing contradictory traits may risk arousing cognitive dissonance (Festinger, 1957), but the paradox perspective suggests that leaders who accept, confront, and transcend paradox will harvest its pluralistic potential (Smith & Lewis, 2011). We will explain the strengths and weaknesses of each trait and show how they complementarily create conditions for innovation.

Third, we propose that socialized charisma potentially mediates the relationship between a CEO's paradoxical traits and firm innovation. *Charisma* depends on followers' perceptions and attributions regarding leaders' behaviors (Conger & Kanungo, 1987; Waldman, Ramirez, House, & Puranam, 2001). When followers perceive that their leader articulates an inspirational idealized vision of collective interests, they will perceive that the leader has *socialized charisma* (House & Howell, 1992). Leaders who have socialized charisma have been shown to increase firm innovation (Jung, Wu, & Chow, 2008), but the literature has failed to determine whether socialized charisma may be associated with humility and narcissism. Instead, humble leaders are said to lack charisma (Collins, 2001), or that their charisma is “quiet” (Nielsen, Marrone, & Slay, 2010; Owens & Hekman, 2012). Combined narcissism and charisma has been observed in many American presidents (Deluga, 1997), but other research has found narcissism and charisma to lack a relationship (Galvin, Waldman, & Balthazard, 2010). Despite the conflicting literature, we propose that CEOs can have interacting humility and narcissism that generates socialized charisma and then enhance the ability to lead innovation.

Empirical results based on two multisource datasets largely support our hypotheses and contribute to three streams of research. We advance the upper echelon literature by extending the previous focus on independent effects of single CEO traits and adding a paradox perspective regarding trait combinations or configurations (Zaccaro, 2007). We contribute to the literature on the relationship between leadership and innovation by confirming that complementary leader traits affect firm innovation. Last, we resolve the theoretical puzzle regarding why humility or narcissism alone may fail to elicit socialized charisma.

Theoretical background and hypotheses

A paradox perspective on traits

A paradox denotes contradictory yet coexisting interrelated elements (Smith & Lewis, 2011). Management researchers have extensively adopted the paradox lens in examining organizational phenomena (Schad, Lewis, Raisch, & Smith, 2016), finding that the most effective organizations are often characterized by paradoxes (Cameron, 1986), such as competition and cooperation (Chen, 2008), exploration and exploitation (Jansen, Vera, & Crossan, 2009), differentiation and integration (Lawrence, Lorsch, & Garrison, 1967), and flexibility and efficiency (Eisenhardt, Furr, & Bingham, 2010), especially under conditions of plurality, change, and scarcity (Smith & Lewis, 2011). In addition, micro-level researchers indicate that some effective supervisors and teams have paradoxical characteristics allowing them to maintain simultaneous self/other and learning/performing foci (Van Der Vegt & Bunderson, 2005; Zhang, Waldman, Han, & Li, 2015). Our study extends the emerging inquiry on micro-level paradoxes to establish a paradox perspective on CEO traits, following recent advances by Owens et al. (2015).

Before elaborating on humility and narcissism as a paradox, we must consider whether one person can have contradictory traits. The original cognitive dissonance theory (Festinger, 1957) explains that individuals experience psychological discomfort when holding two inconsistent cognitions and tend to eliminate the dissonance by changing or abandoning one of them. If individuals are aware that they are both humble and narcissistic, they may experience cognitive dissonance because the two contradictory cognitions related to their traits (i.e., the cognition of “I am humble” and the cognition of “I am narcissistic”) do not fit together. For example, when they perceive themselves as humble but notice that they behave narcissistically (e.g., boasting their success), the experienced cognitive dissonance may drive them to change their perceptions of being humble or reduce their narcissistic behavioral tendencies.

However, cognitive dissonance theory does not rule out the possibility that contradictory traits can coexist. First, individuals may be unaware that they hold inconsistent traits; individuals often have blind spots regarding aspects of their personality (Vazire, 2010). Without awareness of trait inconsistency, they have no need to eliminate dissonance associated with contradictory traits. Second, even if they are aware of their inconsistent traits, refined cognitive dissonance theory (Cooper, 2007; Thibodeau & Aronson, 1992) suggests that they will experience dissonance only if (1) they want to maintain a positive self-concept and (2) their inconsistency causes aversive consequences. Thus, they escape dissonance if they do not need a positive self-concept and/or they gain real or perceived benefits from being inconsistent. Accordingly, individuals may cognitively recognize and readily accept their paradoxical traits.

Cross-cultural research shows that East Asians have less need than Westerners to maintain positive self-concepts (Choi & Choi, 2002; Spencer-Rodgers, Peng, Wang, & Hou, 2004). East Asians tend to hold dialectic worldviews, accepting that the world is contradictory, interconnected, and constantly changing (Peng & Nisbett, 1999). With high tolerance for psychological contradictions, they comfortably accept that they can be both good and bad (Spencer-Rodgers et al., 2004).

In addition, individuals may perceive maintaining paradoxical elements as beneficial (Eisenhardt, 2000). Embracing interwoven opposites such as independence and dependence fosters mental health (Jung, 1965). Successful integration of different self-views reduces emotional turmoil (Markus & Wurf, 1987). Integrating two seemingly incompatible identities is a characteristic of creativity (Cheng, Jeffrey, & Lee, 2008). Simultaneously experiencing positive and negative emotions can generate more accurate judgments (Rees, Rothman, Lehavy, & Sanchez-Burks, 2013). Subordinates can be more proficient, adaptive, and proactive under paradoxical leadership that maintains both distance and closeness, controls decisions while allowing autonomy, and enforces work requirements while allowing flexibility (Zhang et al., 2015).

In sum, the literature clearly suggests that contradictory traits can coexist. Next we focus on two inherently paradoxical yet potentially coexisting traits—humility and narcissism and further review empirical evidence supporting their possible coexistence.

Contradiction and possible coexistence of humility and narcissism

Definitions of humility and narcissism vary. Some take a negative view, associating humility with low self-esteem (Weiss & Knight, 1980) and narcissism with mental disorder (Kohut, 2013). We follow management research that views humility and narcissism as functional leadership tendencies (Maccoby, 2004; Morris et al., 2005). Both traits have been labeled as personality types, including integral and inseparable cognitive, motivational, and behavioral components (Chatterjee & Hambrick, 2007; Ou et al., 2014; Zhu & Chen, 2015). The three components are like layers of an onion: behaviors and motivations are external and intermediate; cognitive self-views are the internal core driving external manifestations (Baumeister, 1998). We discuss all three components for a comprehensive theoretical understanding of the humility–narcissism paradox.

The cognitive component

Humility indicates a transcendent self-view, a belief in a power greater than the self (Morris et al., 2005). Humble individuals recognize their insignificance in comparison with moral laws (Grenberg, 2005), ultimate truth, superior power (Morris et al., 2005), and the larger collective (Tangney, 2002). In contrast, narcissists have an inflated self-view (Morf & Rhodewalt, 2001); they believe that they are superior and incomparable (O'Reilly, Doerr, Caldwell, & Chatman, 2014). Though these two traits imply opposite self-views, research on multiple self-concepts indicates that multidimensional, multifaceted, dynamic, and context-dependent self-concepts can coexist and be activated by environmental inputs (Markus & Wurf, 1987; McConnell, 2011). For example, a shy daughter at home might be an outgoing sorority sister at university (McConnell, 2011).

Similarly, androgynous individuals are simultaneously masculine and feminine (Marsh, 1990). Consequently, we suggest that CEOs who are both highly humble and narcissistic may have humble self-views when they need to show appreciation for others (such as when they must reach consensus with board members and the top management team) and assume narcissistic self-views when they need to draw attention to themselves (such as when attracting investors or clients). CEOs low on either trait may be unable or reluctant to behave humbly or narcissistically even when the situation requires.

The motivational component

Self-views drive motivations. Believing in a power greater than the self, humble people are more drawn to self-transcendent and less drawn to self-focused pursuits (Tangney, 2002). In other words, they are driven by ecosystem motivations, “a motivational orientation driven by goals that are larger or more important than the ego” (Crocker, Garcia, & Nuer, 2008, p. 183). In contrast, inflated self-views cause narcissists to desire personal recognition and glory (Maccoby, 2004), power and prestige (Raskin & Hall, 1981), and continuous reaffirmation of superiority (Rosenthal & Pittinsky, 2006), all components of egosystem motivation, an orientation toward protecting or inflating the self-image and treating others as “agents of validation or invalidation of the self” (Crocker et al., 2008, p. 173). While most people may be stronger in one orientation than the other, some are driven by a blend of both ecosystem and egosystem motivations (Garcia & Crocker, 2008). For example, negotiators who use win-win strategies may be driven by both self-concern and other-orientation (Nauta, De Dreu, & Van Der Vaart, 2002). Similarly, CEOs who have coexisting humility and narcissism may be motivated to pursue both collective goals and personal recognition.

The behavioral component

Humility and narcissism have different behavioral manifestations. Humble people tend to evaluate themselves and others in perspective (Tangney, 2002), willingly acknowledge their mistakes (Vera & Rodriguez-Lopez, 2004), and seek feedback and advice to correct errors (Owens et al., 2013). They appreciate others' contributions and willingly share honors and recognition (Tangney, 2002). In contrast, narcissists reject negative feedback (Maccoby, 2004), prefer bold and dramatic behaviors (Chatterjee & Hambrick, 2007), and attribute favorable outcomes to themselves and unfavorable outcomes to others (Brown, 1997). As behaviors manifest underlying cognitions and motivations, individuals with both traits can behave contradictorily when different self-concepts or motivational systems are activated in different contexts (Minbashian, Wood, & Beckmann, 2010). Behavioral complexity theory (Denison et al., 1995) suggesting that leaders can engage in diverse or even contradictory behaviors may apply to leaders who possess paradoxical traits.

Empirical evidence for the coexistence of humility and narcissism

Moderate to strong negative correlations found between humility and narcissism may indicate that they cannot coexist (e.g., Lee & Ashton, 2005). However, psychology inventories often use reverse-coded narcissism items to indicate humility, so the negative correlations might be a measurement artifact. For example, items measuring the humility (or modesty) dimension in the HEXACO Personality Inventory (HEXACO-PI) (Lee & Ashton, 2005) are reverse-coded, using items such as “I think that I am entitled to more respect than the average person” and “I want people to know that I am an important person of high status.” These items are similar to ones used in narcissism measures, such as “I insist upon getting the respect that is due me,” in NPI-16 (Ames, Rose, & Anderson, 2006) and “I tend to seek prestige or status” (Jonason & Webster, 2010). However, management scholars have recently begun to treat humility and narcissism as independent constructs to ensure that the items do not carry similar meanings. These improved definitions and measures result in weakly negative or insignificant humility–narcissism correlations (0.00 or -0.06 in Owens et al., 2015; -0.08 or -0.24 in Ou et al., 2014), supporting the idea that humility and narcissism can coexist in the same person.

Hypotheses

We propose that humility and narcissism, although independent, are complementary, “are both vital for long-term success” (Schad et al., 2016, p. 19), and may coexist to benefit CEOs in managing innovation. Innovation is both a process and an outcome (Crossan & Apaydin, 2010). Consequently, we focus on both innovative culture (the process aspect) and innovative performance (the outcome aspect) of innovation. CEOs are responsible for cultivating an *innovative culture*, a supportive environment for generating creative ideas (Amabile, Conti, Coon, Lazenby, & Herron, 1996), and for delivering *innovative performance*, the outcomes and products of implementing creative ideas (Calantone, Cavusgil, & Zhao, 2002). Although we do not intend to establish a link between innovative culture and innovative performance, previous empirical studies, reviews, and meta-analyses suggest that innovation-supportive environments generate innovative outcomes (Jung, Chow, & Wu, 2003). Next we explain how CEO humility and narcissism interact to relate to the two aspects of innovation.

CEO humility, narcissism, and innovative culture

Innovative cultures emphasize shared values of flexibility, adaptation, growth, risk-taking, change, and entrepreneurship (Hartnell, Ou, & Kinicki, 2011). CEOs are the primary influence for creating and modifying organizational cultures (Tsui, Zhang, Wang, Xin, & Wu, 2006). They effectively shape culture when they (1) endorse management practices that support organizational values (Fulmer & Ostroff, 2016) and (2) serve as high-profile living artifacts that symbolize and justify organizational values (Schein, 2010). Management practices may try to instill values such as innovation, but if employees lack role models, they may interpret management practices as mere formalities and fail to internalize the values (Lau & Ngo, 2004). Thus CEOs who fervently

advocate certain values may help cultivate an organizational culture (Howell & Higgins, 1990), but if they fail to endorse, legitimize, and routinize those values, employees may dismiss the CEO's advocacy as lip service and fail to identify strongly with the advocated values (Schein, 2010). Consequently, CEOs must both endorse and model the culture.

CEOs with high humility but low narcissism may be ineffective in cultivating innovative culture because they are good at endorsing management practices but not at serving as living artifacts. Humble CEOs know their constraints, value others' contributions, and willingly establish platforms that allow others to excel (Owens & Hekman, 2012). Therefore, they are more likely to endorse management practices such as recruiting and promoting capable innovators (Drucker, 1992), empowering employee entrepreneurship, and rewarding innovative contributions (Morris et al., 2005). However, purely humble CEOs tend to keep low profiles and lack visibility, particularly to employees who are not their direct reports. Thus they cannot serve as living artifacts of innovation or symbolically represent innovation values (Ou et al., 2014).

Pure narcissists without humility can be ineffective in cultivating an innovative culture as well, because they are more likely to serve as living artifacts but less likely to endorse innovation-supportive management practices. They are attracted to a sense of novelty and to drawing attention to themselves to reassure their superior self-view (Chatterjee & Hambrick, 2007). Therefore, they will publicly model and encourage innovative behaviors through speeches, emails, and letters (Gerstner, König, Enders, & Hambrick, 2013; Rosenthal & Pittinsky, 2006). Recall that Jack Ma is known for audacious stage performances; similarly, narcissistic CEOs may endorse unconventional behaviors for surprise and excitement that stimulates risk taking and creativity (Jaussi & Dionne, 2003). However, because they are guided by a self-centered view of the world (Rosenthal & Pittinsky, 2006), they tend to overestimate their contributions, feel threatened by talented innovators, and take credit for others' efforts (Chatterjee & Hambrick, 2007). As a result, they may be reluctant to endorse management practices that recruit, reward, or promote innovators.

We therefore propose that humility and narcissism are complementary and enable CEOs to simultaneously engage in endorsing management practices and modeling innovative values to foster innovative culture:

Hypothesis 1a. *The interaction of a CEO's humility and narcissism will be positively associated with the firm's innovative culture, such that the relationship between CEO humility and firm innovative culture will be more positive when CEO narcissism is high than when it is low.*

CEO humility, narcissism, and innovative performance

Similarly, we propose that CEOs who are both humble and narcissistic will be better able to deliver innovative performance. To be innovative, companies must simultaneously exploit current knowledge, skills, and processes and explore new ones (March, 1991). If they pursue only exploration, they may fall into *failure traps* in which they constantly engage in costly experiments, fail to produce results and benefits, and face immediate survival threats when resources are exhausted (Siggelkow & Rivkin, 2006). Companies that pursue only exploitation may fall into *competency traps* in which they remain satisfied with their success, fail to prepare for unexpected environmental changes, and become unsustainable in the long run (Levinthal & March, 1993). In other words, innovation is possible only when companies simultaneously exploit the known to gain resources that will allow them to explore the unknown to make future exploitation possible (Atuahene-Gima, 2005).

Purely humble CEOs may be more likely to exploit than explore. Grounded in an understanding of self-imperfection, they recognize the need to improve themselves (Owens & Hekman, 2012). In CEOs, humility may drive constant efforts to incrementally improve and refine current practices and products (Vera & Rodriguez-Lopez, 2004). However, their tendency to process information comprehensively (Morris et al., 2005) and to take only well-calculated risks may cause them to see too much risk in extremely radical exploration.

In contrast, pure narcissists may often favor radical exploration to satisfy their need for attention (Emmons, 1987). Their sense of superiority enables them to maintain optimism and persistence when facing the difficulties of entirely new projects (Chatterjee & Hambrick, 2007). Exploitation and incremental refinements may seem mundane and boring (Drucker, 1992), thus unattractive to the narcissists.

We therefore propose that combined humility and narcissism will enable CEOs to both exploit the known and explore the unknown to achieve innovative performance:

Hypothesis 1b. *The interaction of a CEO's humility and narcissism will be positively associated with the firm's innovative performance, such that the relationship between CEO humility and firm innovative performance will be more positive when CEO narcissism is high than when it is low.*

CEO humility, narcissism, and socialized charisma

Researchers have tested whether humility and narcissism interactions produce positive effects (e.g., Owens et al., 2015), but we advance the research by examining how positive interaction effects occur. Humility and narcissism are traits, and charisma is a reflection of followers' favorable perceptions and attributions regarding their leader (Waldman et al., 2001). Researchers have differentiated two types of charisma: personalized and socialized (Howell & Shamir, 2005). They share a component—inspiring followers with a vision—yet they differ in the content of the vision. Visions underlying personalized charisma reflect “the internal needs of leaders,” whereas visions underlying socialized charisma reflect the needs of “the market or constituents” (Conger, 1990, p. 45). Leaders with personalized charisma are “motivated by a need to accumulate personal power” using “tactics designed to increase followers' identification” with the leaders (Howell & Shamir, 2005, p. 103). In contrast, leaders with socialized charisma seek “power for social purposes and emphasizes collective identity and collective values” (Howell & Shamir, 2005, p. 103). Personalized charisma may be dangerous in that it implies follower dependence and manipulation (Conger, 1990), but socialized

charisma benefits both followers and organizations (Howell, 1988; Waldman et al., 2001). Consequently, we propose *socialized charisma* as a mediating mechanism linking CEO trait interaction to innovative culture and performance.

Leaders foster perceptions of socialized charisma by engaging in two mutually reliant activities: (1) developing socialized visions that emphasize shared values, moral justifications, collective identity, individual worth and efficacy; and by (2) inspirationally communicating their visions to followers (House & Howell, 1992). Followers will not perceive socialized charisma if the leaders fail to effectively communicate their socialized visions (Conger & Kanungo, 1987) or if they communicate visions that lack socialized contents (Galvin et al., 2010).

Humble CEOs without narcissism, motivated by the ecosystem and their low self-focus, are willing to fight for the collective good (Ou et al., 2014). Being open-minded and attentive to follower voices, they can better incorporate followers' input into their visions (Nielsen et al., 2010). But they tend to keep low profiles and willingly admit their mistakes and limitations; therefore, they may lack the ability to generate excitement and optimism. In addition, for distant followers who lack personal familiarity with the CEO may mistake openness for incompetency and be less inclined to perceive that the leader has socialized charisma (Owens et al., 2013).

Purely narcissistic CEOs may also be less likely to be perceived as having socialized charisma. Driven by inflated self-views and hunger for attention, they communicate visions skillfully (Galvin et al., 2010) such as using inspirational rhetoric to paint a compelling future, boldly demonstrating their capabilities, conveying supreme confidence and certainty, and removing concerns about risk or resource constraints (Maccoby, 2004). However, their visions are focused on their own agenda, not on followers' well-being (Hogan, Raskin, & Fazzini, 1990; Rosenthal & Pittinsky, 2006).

We therefore propose that followers will perceive socialized charisma in CEOs who have both humility and narcissism because they will have socialized visions and inspirationally communicate their visions to followers:

Hypothesis 2. *The interaction of a CEO's humility and narcissism will be positively associated with socialized charisma, such that the relationship between CEO humility and socialized charisma will be more positive when CEO narcissism is high than when it is low.*

Charismatic leaders are often champions for innovation (Howell & Higgins, 1990) and their leadership is essential for creating innovative culture (Schein, 2010) and increasing performance (Tosi, Misangyi, Fanelli, Waldman, & Yammarino, 2004). We further propose that socialized charisma mediates the links between CEO traits, innovative culture, and performance.

Because charismatic leaders are unsatisfied with the status quo and desire to break established routines (Tucker, 1968), they are willing to support management practices that promote innovation (Jung et al., 2003). In addition, they are inspiring advocates of appealing and challenging socialized visions (Galvin et al., 2010). As challenging leaders, they make employees realize that the visions may be attractive but will be difficult to achieve. Consequently, employees must question their own assumptions, deal with old situations in new ways, take personal risks, make sacrifices, and work beyond requirements (House & Howell, 1992).

Socialized charismatic CEOs act as living artifacts by personally displaying unconventional and risk-taking behaviors (Conger & Kanungo, 1987), thus signaling that the organization highly values innovation (Wang, Rode, Shi, Luo, & Chen, 2013), and encouraging employees to have innovative values of exploration and experimentation (Jung et al., 2003). Although charismatic CEOs do not always directly interact with lower-level employees, their direct reports can imitate their behaviors when interacting with their own subordinates, so the CEO's charismatic influence cascades downward (Bass, Waldman, Avolio, & Bebb, 1987) to form organization-wide shared understandings regarding innovative values and norms (Schein, 2010).

Socialized charisma enables CEOs not only to better promote innovative culture, but also to better deliver innovative performance. Socialized charismatic leaders are capable of enthusing employees to adopt socialized visions that require innovation and gaining employees' commitment to support innovation (Howell & Higgins, 1990) by skillfully using rhetoric to emphasize collective interests (Bligh, Kohles, & Meindl, 2004; House & Howell, 1992) and by expressing confidence in employees' abilities (House, Spangler, & Woycke, 1991). Thus innovation becomes meaningful and intrinsically motivating. Moreover, the charismatic CEO's socialized visions transform employees' self-identities from "I" to "we" (Conger, Kanungo, & Menon, 2000) and establish a collective sense of "one for all and all for one," so employees tend to support one another to deliver innovative performance (Shamir, House, & Arthur, 1993).

Supporting our logic, CEOs' transformational leadership, the core of which is socialized charisma (Bass & Steidlmeier, 1999), has been found to inspire innovative culture and innovative performance (Jung et al., 2003; Jung et al., 2008). Extending those studies, and combining the logic for *Hypotheses 1a, 1b, and 2*, we propose that socialized charisma partially mediates the link from CEO traits to innovation. Besides socialized charisma, CEOs can use a wide range of other mechanisms to affect firm outcomes. They can coordinate and maintain organizational systems, allocate resources, and formulate and implement strategies (Finkelstein, Hambrick, & Cannella, 2009). Therefore, we propose:

Hypothesis 3a. *CEOs' socialized charisma will partially mediate the interactive effect of humility and narcissism on the firm's innovative culture.*

Hypothesis 3b. *CEOs' socialized charisma will partially mediate the interactive effect of humility and narcissism on the firm's innovative performance.*

The Chinese context

We have shown a theoretical rationale and indirect empirical support for the possible coexistence and joint effects of humility and narcissism. However, embracing and transcending paradoxes is challenging (Smith & Lewis, 2011). Not everyone can do it.

Although paradoxical tendencies have been observed among some supervisors in the United States (Owens et al., 2015), we tested our proposed paradox hypotheses on CEOs in China, where paradoxical thinking is prevalent. Traditional Chinese philosophy encourages paradoxical thinking regarding the harmonious coexistence of opposites (Peng & Nisbett, 1999). The Daoist yin-and-yang symbol denotes that everything is paradoxical but dynamically united (Ma & Tsui, 2015). Similarly, the Confucian “middle way” emphasizes the harmonious integration of opposites and the avoidance of polarization (Chen, 2002). Based on Chinese cultural roots, we consider that Chinese leaders are likely to exhibit and benefit from the humility and narcissism paradox.

Method

We conducted two studies to test the hypotheses. Study 1 tested H1a and H3a involving innovative culture. Study 2 tested H1b and H3b involving innovative performance. Both studies tested H2 concerning socialized charisma. The two studies are complementary. Study 1 used a longitudinal and multisource design and full measures of study variables but with a smaller sample of 63 CEOs. Study 2 used a larger sample of 143 CEOs but with a cross-sectional design and shortened measures. Although researchers generally agree that narcissism, as a trait, should be measured with self-reports (Ames et al., 2006; Emmons, 1987), researchers suggest using other-reports to measure humility because self-serving biases may cause people low in humility to overrate their humility (Owens et al., 2013; Tangney, 2000). However, both self-report and other-report CEO humility have been found to similarly predict outcomes (Ou, Waldman, et al., in press). As humility is still a novel construct in management research, we used other-report humility in Study 1 and self-report humility in Study 2 to provide a more comprehensive assessment of humility effects (Colbert, Judge, Choi, & Wang, 2012).

Study 1

Sample and data collection procedure

Study 1 was part of a larger research project involving a sample of 63 CEOs, 328 TMT members, and 645 middle managers, and Ou et al. (2014) and Ou, Seo, Choi, and Hom (in press) published other findings based on the same dataset.² The sample came from an alumni database at a Chinese business school on the eastern shore of China. The 63 local private firms (representing a 48.4% response rate of the initial sample contacted) came from diverse industries: 41.3% in manufacturing and 58.7% in service or trade. Each firm averaged 823 employees ($SD = 1,927$), with about five TMT members and ten middle managers participating. The CEOs were mostly men (88.9%), averaged 41.70-years-old ($SD = 9.21$), and had an average company tenure of 9.71 years ($SD = 5.12$). Most (97.2%) had college or above education. The 328 TMT members were mostly men (70.3%). 85.7% had college or above degrees, averaged 39.26-years-old ($SD = 8.61$), and had company tenure of 7.28 years ($SD = 6.96$). Among the 645 middle managers, 61.1% were men, 82.9% had college or above degrees, averaged 35.21-years-old ($SD = 7.90$), and had company tenure of 6.13 years ($SD = 6.02$).

We collected survey data from participants at two different times. In the Time 1 survey, CEOs reported their own narcissism, while TMT members evaluated CEOs' humility. At Time 2 (approximately two weeks later), TMT members assessed CEOs' socialized charisma, and middle managers assessed firm innovative culture. TMT members subjectively rated firm performance as a control variable. Chinese versions were available for measuring humility and socialized charisma, but measures for narcissism, innovative culture, and firm performance were only in English. We translated them into Chinese using the standard translation and back-translation procedure (Brislin, 1980). The full measures of humility and narcissism and sample items of socialized charisma are in Appendix I.

Measures

All measures in this study used six-point scales ranging from 1 = *strongly disagree* to 6 = *strongly agree*. CEO humility, socialized charisma, and firm innovative culture were aggregated from individual-level data, justified by significant ANOVA F statistic, higher than 0.70 average r_{wg} (James, Demaree, & Wolf, 1984), and non-zero Intraclass Correlation (ICC; Bliese, 2000). We adopted the most commonly used rectangular distribution to calculate r_{wg} (Meyer, Mumford, Burrus, Campion, & James, 2014).³

² The current study and the other two published studies used the same dataset but examined different research questions. Ou et al. (2014) used the same full sample of 63 companies and examined the effects of CEO humility on top management team behavioral dynamics, organizational climate, and middle manager attitudes and behaviors. Ou, Seo, et al. (in press) used a subsample of 43 companies that furnished middle manager turnover data and focused on top management team faultlines as a moderator in the model of top executive humility – middle manager job satisfaction – middle manager voluntary turnover. Except for CEO humility and narcissism, the overlapping variables in the current study and Ou et al. (2014) were all control variables including CEOs' age, company tenure, gender, education, and founder status, firm performance, firm size, and firm age; the current study and Ou, Seo, et al. (in press) only had one overlapping variable, - firm age. The complete data transparency table is available upon request.

³ CEO humility and charisma ratings involve top management team members assessing higher level targets (i.e., CEOs), and may cause leniency biases (Meyer et al., 2014). We therefore also tried skewed distributions addressing potential leniency biases. r_{wg} statistics using skewed distributions were generally lower than those using rectangular distributions but were still above the 0.70 acceptance level. Results are available from authors on request.

Humility

We measured humility with Owens et al.'s (2013) nine-item scale, which has demonstrated good reliability and validity in Chinese samples (Ou et al., 2014). Cronbach's alpha was 0.86. The aggregation statistics were acceptable: ANOVA $F(62, 265) = 1.40, p < 0.05$; Mean $r_{wg} = 0.91$ ($SD = 0.18$); ICC (1) = 0.07; ICC (2) = 0.29.

Narcissism

We used 14 items from NPI-16 (Ames et al., 2006) which is one of the most recognized measures of non-pathological, grandiose narcissism (Miller et al., 2014). We excluded two items "I think I am a special person" and "I like to be the center of attention" because of semantic similarity with other items. Cronbach's alpha was 0.86. We validated the 14-item NPI using a separate sample of 188 working professionals in China who reported their own narcissism and other related variables. Results showed that 14-item NPI and NPI-16 were highly correlated ($r = 0.99, p < 0.01$), and their correlations with other variables including humility, socialized charisma, big five personalities, self-esteem, and Machiavellianism did not significantly differ, after controlling for social desirability to reduce common method variances (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Socialized charisma

Following Brown and Trevino (2006) and Galvin et al. (2010), we used two dimensions (idealized influence and inspirational motivation) of the Multifactor Leadership Questionnaire (MLQ, Bass & Avolio, 1995) comprising 12 items to measure socialized charisma. Although Bass and Avolio (1995) did not explicitly argue that these dimensions indicate socialized charisma, Bass and Steidlmeier (1999) recognized that the charisma components in transformational leadership theory is in essence authentic and socialized charisma, which is grounded in moral foundations and concerns collective interests. Cronbach's alpha was 0.91. The aggregation was justifiable: ANOVA $F(62, 265) = 2.75, p < 0.01$; Mean $r_{wg} = 0.95$ ($SD = 0.06$); ICC (1) = 0.25; ICC (2) = 0.64.

Firm innovative culture

We measured this construct by four items from the adhocracy dimension of the Organizational Culture Assessment Instrument (OCAI) (Cameron & Quinn, 2006). Sample items are: "The organization is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks," and "The glue that holds the organization together is commitment to innovation and development. There is an emphasis on being on the cutting edge." Cronbach's alpha for this scale was 0.76. The aggregation was supported: ANOVA $F(62, 265) = 3.12, p < 0.01$; Mean $r_{wg} = 0.87$ ($SD = 0.07$); ICC (1) = 0.17; ICC (2) = 0.68.

Control variables

We controlled for CEOs' age, company tenure, gender, education, and founder status, as well as firm performance, firm size, and firm age for their potential influences on charisma and innovation. CEOs' age and company tenure (in years) were controlled because older and more experienced CEOs are highly respected in China (Chen & Miller, 2010), but they may resist change (Musteen, Barker, & Baeten, 2006). Compared with men CEOs, women CEOs may be seen as more charismatic because of their nurturing and supportive style (Eagly, Johannesen-Schmidt, & Van Engen, 2003), but they tend to be more risk-averse (Jianakoplos & Bernasek, 2007). Gender was coded 1 = men, and 0 = women. Education indicates status, competence, and cognitive complexity, and thus is expected to positively relate to charisma and innovation (Rajagopalan & Datta, 1996). We measured education using a six-point ordinal scale: 1 = junior high school or below, 2 = high school, 3 = college, 4 = bachelor's degree, 5 = master's degree and 6 = PhD. We controlled for CEOs' founder status (1 = founder, 0 = non-founder) because it influences strategic directions and culture (Schein, 2010).

Firm performance serves as cues of CEOs' competence that affects charisma and is related to firms' capability to provide financial resources and talent for innovation (Amabile et al., 1996). TMT members responded to a two-item measure asking about sales and return on assets (ROA) relative to major competitors (Sully de Luque, Washburn, Waldman, & House, 2008): 1 = 30% or more below major competitors and 7 = 30% or more above major competitors. Previous study (Sully de Luque et al., 2008) showed that this subjective measure had some level of agreement with objective firm performance and using competitors as anchors made firm performance comparable across industries. We controlled for firm size and firm age because CEOs in larger and older firms tend to be seen as more charismatic but may face more structural inertia (Li & Tang, 2010).

Analysis

We followed hierarchical multiple regression procedures (Cohen, Cohen, West, & Aiken, 2003) to test Hypotheses 1a and 2 which suggest an interactive effect of CEO humility and narcissism on outcomes. In Step 1, we entered the control variables. In Step 2, we entered CEO humility and narcissism. Both humility and narcissism were mean-centered to minimize multicollinearity. In Step 3, we entered the interaction term of humility and narcissism. We also conducted simple slopes analyses and drew interaction figures to illustrate the interaction effects of humility and narcissism (Cohen et al., 2003).

Hypothesis 3a concerns the mediating role of socialized charisma. We followed Preacher and Hayes's (2004) method with 10,000 bootstrap samples. The mediation is significant when the 95% bias-corrected confidence interval of the indirect effect excludes zero. Because mediation tests based on small samples can be skewed by extreme outliers (Hayes, 2013), we conducted multivariate outlier analysis following Stevens (1984) and calculated Mahalanobis D^2 using all predictors in the regression. We identified one outlier ($p < 0.001$), a much older firm (age = 57) than the other firms in the sample (averaged age = 14). We

tested the hypotheses including and excluding the outlier and reported both results. The results were generally consistent but those without the outlier were slightly stronger.

Results

Table 1 shows descriptive statistics and correlations. CEO humility and narcissism were not related, suggesting that the two traits were not two ends of one continuum. CEO humility was positively related to socialized charisma and firm innovative culture, but CEO narcissism was not related to either outcome.

Table 2 summarizes the results of hypotheses testing. We tested the hypotheses including and excluding the outlier and reported both results. The results were generally consistent but those without the outlier were slightly stronger. For reporting clarity, sample 1 includes the outlier ($N = 63$); sample 2 excludes the outlier ($N = 62$).

For firm innovative culture, Model 5 shows that neither CEO humility nor narcissism had a significant effect, but the interaction term in Model 6 was significant (sample 1: $\beta = 0.28$, $p < 0.05$; sample 2: $\beta = 0.27$, $p < 0.05$), accounting for an additional 7% of total variance (sample 1: $\Delta R^2 = 0.07$, $p < 0.05$; sample 2: $\Delta R^2 = 0.07$, $p < 0.05$). Hypothesis 1a was supported. Fig. 1 based on sample 1 shows the results of simple slope test; that is, CEO humility and firm innovative culture had a positive and significant relationship when narcissism was high ($\beta = 0.57$, $p < 0.01$), but an insignificant relationship when narcissism was low ($\beta = -0.19$, $p > 0.10$). Results based on sample 2 show similar patterns.

For socialized charisma, Model 2 shows that both CEO humility and narcissism had positive effects. Supporting Hypothesis 2, the coefficient for the interaction term in Model 3 was positive, and the effect was slightly stronger when using sample 2 (sample 1: $\beta = 0.20$, $p < 0.10$; sample 2: $\beta = 0.22$, $p < 0.05$), explaining about an additional 5% of total variance (sample 1: $\Delta R^2 = 0.04$, $p < 0.10$; sample 2: $\Delta R^2 = 0.05$, $p < 0.05$). Fig. 2 based on sample 1 shows the results of simple slope test; that is, humility and socialized charisma had a positive and significant relationship when narcissism was high ($\beta = 0.84$, $p < 0.01$), but an insignificant relationship when narcissism was low ($\beta = 0.14$, $p > 0.10$). Results based on sample 2 show similar patterns.

For Hypothesis 3a, the results based on sample 1 suggest marginal significance of the indirect effect of socialized charisma (indirect effect = 0.08, 95% CI = $[-0.01, 0.28]$, 90% CI = $(0.00, 0.25]$). However, results based on sample 2 suggest that socialized charisma fully mediates the relationship between interaction term and firm innovative culture; that is, the indirect effect is 0.09 (95% CI = $(0.00, 0.36]$) and the direct effect is 0.28 (95% CI = $[-0.09, 0.65]$). In addition, a moderated mediation test (Preacher, Rucker, & Hayes, 2007) showed that the indirect effect from CEO humility to innovative culture via socialized charisma is significant (indirect effect = 0.16, 95% CI = $[0.01, 0.48]$) when narcissism was high but was insignificant (indirect effect = 0.04, 95% CI = $[-0.03, 0.22]$) when narcissism was low. In summary, Study 1 fully supported Hypothesis 1a regarding innovative culture as an outcome, and Hypothesis 2 regarding socialized charisma as an outcome. For Hypothesis 3a, the results based on Study 1 show that socialized charisma is a full mediator rather than partial mediator.

Study 2

Sample and procedures

We obtained data from the Chinese Entrepreneur Survey System (CESS), a survey platform hosted by the Chinese State Council offering a pool of 5000 firms in various industries and locations. We randomly selected 200 firms and surveyed their CEOs and

Table 1
Means, standard deviations, and inter-correlations for variables in Study 1.

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1 CEO socialized charisma	4.51	0.60												
2 Firm innovative culture	4.04	0.43	0.34**											
3 CEO humility	4.68	0.41	0.36**	0.22†										
4 CEO narcissism	3.56	0.68	0.18	-0.01	-0.07									
5 CEO age (years)	41.70	9.21	0.03	0.04	-0.15	-0.03								
6 CEO company tenure (years)	9.71	5.12	0.09	-0.01	0.23†	-0.08	0.20							
7 CEO gender (1 = men; 0 = women)	0.89	0.32	-0.10	0.07	0.07	-0.01	0.18	-0.02						
8 CEO education	4.32	1.03	0.25†	0.16	0.06	0.00	0.06	-0.12	-0.04					
9 CEO founder status (1 = founder; 0 = non founder)	0.71	0.46	0.19	-0.11	-0.15	0.08	0.14	0.09	-0.22†	-0.08				
10 Firm performance	4.26	1.41	0.25*	0.24†	0.13	0.10	-0.13	0.11	-0.32**	0.17	-0.04			
11 Firm size (Ln of no. of employees)	5.57	1.42	0.16	-0.08	0.11	-0.13	0.15	0.23†	0.17	-0.16	-0.27*	-0.11		
12 Firm age	14.03	9.22	0.01	0.06	0.21	-0.14	-0.02	0.22†	0.13	-0.05	-0.54**	0.09	0.35**	

Note. $N = 63$.

† $p < 0.10$.

* $p < 0.05$.

** $p < 0.01$.

Table 2

Standardized results of hierarchical multiple regressions in Study 1.

	Socialized charisma						Firm innovative culture						
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		
	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	
Control variables													
CEO age	-0.04	-0.02	0.04	0.04	0.02	0.02	0.08	0.07	0.12	0.12	0.09	0.09	
CEO company tenure	0.02	-0.08	-0.06	-0.12	-0.06	-0.12	0.00	0.01	-0.05	-0.03	-0.04	-0.04	
CEO gender	0.04	0.03	-0.02	-0.02	-0.05	-0.05	0.15	0.15	0.13	0.13	0.08	0.08	
CEO education	0.27*	0.22†	0.24*	0.22†	0.24*	0.21†	0.07	0.07	0.05	0.06	0.05	0.05	
CEO founder status	0.39*	0.45**	0.39**	0.43**	0.42**	0.46**	-0.08	-0.08	-0.07	-0.09	-0.04	-0.05	
Firm performance	0.26*	0.25†	0.20†	0.20	0.20†	0.20	0.29*	0.29*	0.27†	0.27†	0.27†	0.27†	
Firm size	0.27*	0.24†	0.27*	0.25*	0.26*	0.24†	-0.08	-0.07	-0.09	-0.08	-0.10	-0.09	
Firm age	0.12	0.28†	0.10	0.21	0.12	0.25	0.01	-0.01	-0.01	-0.06	0.01	-0.01	
Main effects													
CEO humility			0.36**	0.34**	0.35**	0.31**			0.20	0.22	0.19	0.19	
CEO narcissism			0.20†	0.19†	0.20†	0.19†			-0.02	-0.02	-0.03	-0.03	
Interaction effect													
CEO humility × narcissism					0.20†	0.22*					0.28*	0.27*	
R ²	0.25	0.26	0.39	0.38	0.42	0.43	0.11	0.11	0.15	0.15	0.22	0.22	
ΔR ²			0.14**	0.12**	0.04†	0.05*			0.04	0.04	0.07*	0.07*	

Note: S1 = sample 1 (N = 63); S2 = sample 2 (N = 62, removing an outlier).

- † p < 0.10.
- * p < 0.05.
- ** p < 0.01.

TMT members. We received 194 CEO replies, among which 143 had matched TMT replies (response rate = 71.5%). The final sample included 143 CEOs and 190 TMT members. No statistically significant differences were found on CEO demographics and firm size between firms with and without TMT respondents. The responding firms averaged 1,679 employees (SD = 7,093). Among the participating CEOs, 90.1% were men, averaged 51.91-years-old (SD = 7.42), 16.41 years of education (SD = 3.27), and 17.82 years of company tenure (SD = 10.73). TMT members were mostly men (82.7%), averaged 44.36-years-old (SD = 7.78), 15.84 years of education (SD = 2.75), and 12.35 years of company tenure (SD = 9.65).

CEOs reported their own humility and narcissism, as well as demographics and firm size as control variables. TMT members assessed CEOs' socialized charisma and firm innovative performance, and reported firm performance as a control variable.

Measures

To increase response rate (Bednar & Westphal, 2006), we used abbreviated measures of humility, narcissism, and socialized charisma (see Appendix I for items included in the abbreviated measures). We followed Stanton, Sinar, Balzer, and Smith's (2002) recommendations and selected items that met internal, judgmental, and external quality criteria and exhibited convergent, discriminant, criterion-related validity, and reliability (see Appendix II for detailed procedures). Using Study 1 data, we selected

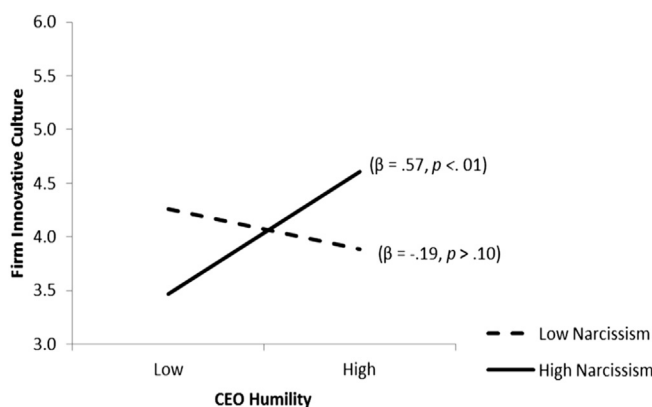


Fig. 1. The interaction of CEO humility and CEO narcissism on firm innovative culture in Study 1.

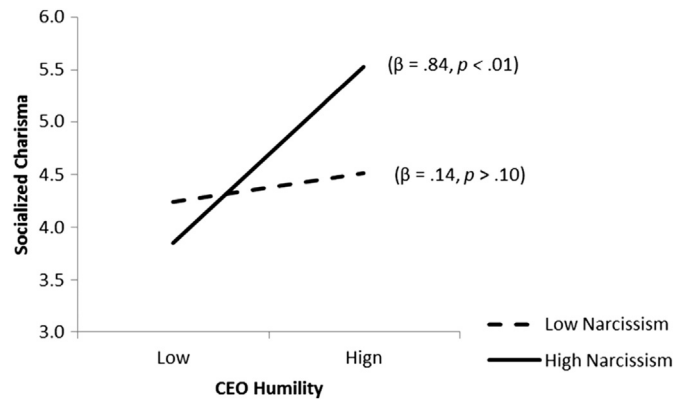


Fig. 2. The interaction of CEO humility and CEO narcissism on socialized charisma in Study 1.

items that showed reasonably high factor loadings in exploratory factor analysis with principal axis factoring and appropriately covered the content domain of the constructs. The abbreviated measures had strong correlations with the full measures, and their correlations with criteria variables had no significant difference as compared with the full measures' correlations with criteria variables. All abbreviated measures had Cronbach's alphas higher than 0.70 (Nunnally, 1978).

Based on CESS's advice to increase variability, we used the six-point scale for the CEO traits (humility and narcissism), and a five-point scale for other firm variables. For the 31 firms with more than one TMT respondent, we averaged responses after assessing r_{wg} based on rectangular distributions.

Humility and narcissism

Humility was measured by four items from Owens et al. (2013). Cronbach's alpha was 0.75. Narcissism was measured by four items from Ames et al. (2006). Cronbach's alpha was 0.77.

Socialized charisma

Socialized charisma was measured by six items adapted from the Multifactor Leadership Questionnaire (MLQ, Bass & Avolio, 1995). Cronbach's alpha was 0.83. For firms with more than one TMT response, mean $r_{wg} = 0.97$ ($SD = 0.05$).

Firm innovative performance

We used five items from a six-item scale by Calantone et al. (2002) to measure firm innovative performance. Sample items include "Our new product introduction has increased over the last 5 years," and "Our company is often the first to market with new products and services." One reverse-coded item – "innovation in our company is perceived as too risky and is resisted" – was deleted because it expressed confusing meanings and substantially reduced scale reliability.⁴ Cronbach's alpha of the remaining items was 0.81. For firms with more than one TMT response, mean $r_{wg} = 0.95$ ($SD = 0.08$).

Control variables

We included most of the control variables used in Study 1 except CEOs' founder status and firm age because the data were unavailable. CEOs' education level was measured by number of years. We used a more fine-grained measure of firm performance with seven items concerning firm profit, sales, sales growth, market share, employee morale, asset growth, and competitive positioning in the industry (Wang, Tsui, Zhang, & Ma, 2003). Cronbach's alpha was 0.92.

Analysis

Our analytical procedure was identical to those described in Study 1. We also followed hierarchical multiple regression procedures to test Hypotheses 1b and 2, and Preacher and Hayes's (2004) method with 10,000 bootstrap samples to test Hypothesis 3b concerning the mediation.

⁴ Cronbach's alpha of the full scale including six items was 0.64.

Table 3
Means, standard deviations, and inter-correlations for variables in Study 2.

Variables	M	SD	1	2	3	4	5	6	7	8	9
1. CEO socialized charisma	4.18	0.51									
2. Firm innovative performance	3.73	0.64	0.39**								
3. CEO humility	5.26	0.40	0.11	0.10							
4. CEO narcissism	3.91	0.87	0.04	0.01	0.07						
5. CEO age (years)	51.91	7.42	0.03	-0.02	-0.12	-0.08					
6. CEO company tenure (years)	17.82	10.73	0.05	0.07	-0.05	-0.10	0.28**				
7. CEO gender (1 = men; 0 = women)	0.90	0.30	-0.16†	-0.12	-0.21**	-0.19*	0.10	0.12			
8. CEO education (years)	16.41	3.27	-0.15	-0.12	-0.04	0.15†	-0.04	-0.09	0.02		
9. Firm performance	3.67	0.55	0.23**	0.51**	0.04	0.08	-0.01	0.00	-0.15†	0.05	
10. Firm size (Ln of no. of employees)	6.15	1.42	0.05	-0.00	-0.04	-0.01	0.09	0.29**	0.20*	0.06	0.04

Note. N = 143.

† p < 0.10.

* p < 0.05.

** p < 0.01.

Results

Table 3 shows descriptive statistics and correlations of variables for Study 2. Similar to Study 1, humility and narcissism were unrelated. Neither CEO humility nor narcissism had significant correlations with socialized charisma and innovative performance.

Table 4 summarizes the results of hypothesis testing. Firm innovative performance was not associated with either humility or narcissism in Model 5, but was associated with their interaction term ($\beta = 0.19, p < 0.05$) in Model 6, and the change in R-square was significant ($\Delta R^2 = 0.03, p < 0.05$), supporting Hypothesis 1b. Fig. 3 based on simple slope test shows that humility and firm innovative performance had a positive and significant relationship when narcissism was high ($\beta = 0.45, p < 0.05$) but an insignificant relationship when narcissism was low ($\beta = -0.16, p > 0.10$).

When using socialized charisma as the dependent variable, neither humility nor narcissism had main effects (Model 2). However, the interaction term significantly predicted socialized charisma ($\beta = 0.20, p < 0.05$) in Model 3, explaining an additional 2% ($p < 0.05$) of total variance. This result was consistent with that in Study 1, and supported Hypothesis 2. As Fig. 4 shows, humility and socialized charisma had a significant and positive association when narcissism was high ($\beta = 0.35, p < 0.05$), but no association when narcissism was low ($\beta = -0.13, p > 0.10$). Consistent with Hypothesis 3b, the mediated effect of the interaction of humility and narcissism on firm innovative performance via socialized charisma was 0.06, and the 95% confidence interval excluded zero (95% CI = (0.00, 0.18]). However, with the presence of socialized charisma as a mediator, the direct effect of the interaction term on innovative performance became insignificant (direct effect = 0.24, 95% CI = [-0.03, 0.51]), suggesting that socialized charisma was a full, instead of partial, mediator in this study. The moderated mediation test (Preacher et al., 2007)

Table 4
Standardized results of hierarchical multiple regressions in Study 2.

	Socialized charisma			Innovative performance		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Control variables						
CEO age	0.02	0.03	0.03	-0.05	-0.05	-0.05
CEO company tenure	0.03	0.03	0.02	0.12	0.12	0.10
CEO gender	-0.12	-0.11	-0.08	-0.06	-0.05	-0.02
CEO education	-0.16†	-0.15	-0.15†	-0.14†	-0.13†	-0.13†
Organizational performance	0.23**	0.23**	0.21*	0.54**	0.55**	0.52**
Firm size	0.07	0.07	0.05	-0.05	-0.04	-0.07
Main effects						
CEO humility		0.08	0.08		0.08	0.09
CEO narcissism		-0.00	-0.09		-0.02	-0.11
Interaction effects						
CEO humility × narcissism			0.20*			0.19*
R ²	0.10	0.11	0.13	0.33	0.34	0.37
ΔR ²	0.10*	0.01	0.02*	0.33**	0.01	0.03*

Note. N = 143.

† p < 0.10.

* p < 0.05.

** p < 0.01.

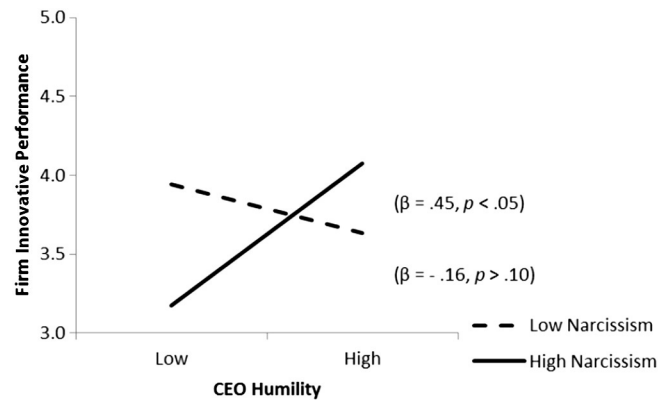


Fig. 3. The interaction of CEO humility and CEO narcissism on firm innovative performance in Study 2.

indicated that CEO humility was significantly associated with innovative performance via socialized charisma when narcissism was high (indirect effect = 0.09, 95% CI = [0.01, 0.25]) but the effect was insignificant when narcissism was low (indirect effect = -0.02, 95% CI = [-0.10, 0.06]). In summary, Study 2 significantly supported [Hypotheses 1b and 2](#), and socialized charisma fully mediated the link between CEO traits and firm innovative performance.

Discussion

Two empirical studies provide preliminary support to our proposed paradox perspective that humility and narcissism interact to enhance CEO effectiveness in promoting firm innovation. First, humility and narcissism were interactively associated with two aspects of firm innovation: innovative culture (Study 1) and innovative performance (Study 2). The results were robust with both other-report (Study 1) and self-report (Study 2) measurements of humility. Second, the studies supported socialized charisma as a mediating mechanism linking the interaction of CEO humility and narcissism to firm innovation in both studies, with Study 1 focusing on innovative culture and Study 2 focusing on innovative performance.

Theoretical implications

By adopting a paradox perspective to investigate the interaction effect of CEO humility and narcissism on firm innovation, we contribute to the strategic leadership literature, particularly to research on CEO humility and narcissism as leadership traits and their influences on firm innovation. For the strategic leadership literature, paradox offers a novel and valuable perspective for examining CEO traits. CEO traits are usually considered independent factors that affect firm outcomes (for a review, [Finkelstein et al., 2009](#)). When certain traits show no or inconsistent associations, the outcomes are usually attributed to contextual moderators



Fig. 4. The interaction of CEO humility and CEO narcissism on socialized charisma in Study 2.

(e.g., Hambrick, Finkelstein, & Mooney, 2005) or competing mediation paths (e.g., Galvin et al., 2010). The paradox perspective provides an alternative explanation by suggesting that traits may interact to affect outcomes. This perspective contrasts with suppositions that contradictory traits are harmful and pathological. Instead, we show that CEOs who have simultaneous humility and narcissism can increase employee perceptions of socialized charisma and can effectively lead firm innovation. By showing that humility and narcissism are complementary, we reveal that a traditionally dark trait such as narcissism (Judge, Piccolo, & Kosalka, 2009) has a bright side if it is combined with humility. Humble CEOs tend to avoid the limelight, but if they have a narcissistic side, they may be excellent leaders for inspiring innovation.

Our study is the first to examine the connection of paradoxical leader traits with firm innovation and is among the few to test leaders' roles in promoting innovative cultures and delivering innovative performance (cf. Jung et al., 2008). Researchers increasingly recognize that the complexity of innovation requires leaders to engage in complementary leadership styles (Rosing et al., 2011). Our study extends the complementary leadership approach by identifying contradictory leadership traits that are effective in promoting innovation. Our findings further suggest that contradictory traits can become complementary by interacting to positively impact innovation (cf. Makri & Scandura, 2010). This interactive approach may be valuable in examining other potentially paradoxical leadership approaches or styles. For example, transactional leadership is less effective than transformational leadership for successful exploration (Jansen et al., 2009), but maybe transactional leadership interacts with transformational leadership to advance innovation.

In addition, leaders promote organizational cultures (Schein, 2010), and employees need an innovation-supportive environment (Anderson, Potocnik, & Zhou, 2014). Adding to emerging quantitative studies on the relationship between leadership and innovative culture (e.g., Jung et al., 2008), we show that CEOs exhibiting both humble and narcissistic tendencies appear to be more effective in instilling innovation values.

Practical implications

Our findings have important practical implications. First, we recommend that executive recruiters evaluate candidates more comprehensively. Recruiters have traditionally favored larger-than-life or narcissistic CEOs (Khurana, 2002), but they may consider the accumulating evidence showing that CEO humility also brings benefits (Ou et al., 2014; Ou, Waldman, et al., *in press*) and that CEO narcissism can be damaging (Chatterjee & Hambrick, 2007). Selecting applicants who are simultaneously humble and narcissistic may be a beneficial alternative, at least in East Asian contexts where psychological contradictions are well accepted. Paradoxical traits may be particularly beneficial for senior executives who are likely to face complex and potentially conflicting role requirements (Denison et al., 1995) in increasingly dynamic environments.

Second, we encourage executive coaches to help establish developmental and situational views of traits. Although individual traits are relatively stable, life changes or role transitions may change self-views or behavioral tendencies (Caspi, Roberts, & Shiner, 2005). For example, Steve Jobs tempered his narcissism with humility during the 1990s after he was ousted from Apple. He described the experience as bitter but necessary medicine (Owens et al., 2015). In addition, self-regulation research suggests that individuals can regulate their cognitions, motivations, or behaviors when the situation requires and that doing so facilitates psychological stability and control (Hoyle, 2010). Therefore, coaches can train executives who lack paradoxical traits to consciously adopt complementary cognitions, motivations, and behaviors when necessary.

Third, we encourage CEOs to broaden their cognitive, motivational, and behavioral repertoires to meet the complex requirements of innovation. Innovation requires leaders to cognitively differentiate and integrate conflicting inputs and processes (Smith & Tushman, 2005) and engage in actions that encourage creativity (Makri & Scandura, 2010; Rosing et al., 2011). CEOs who embrace humility and narcissism have advantages in meeting these challenges. Those who cannot tolerate trait contradictions must still recognize the need for broadening their leadership repertoires, perhaps by hiring top management team members who possess complementary traits.

Limitations and future research directions

Our empirical studies had limitations. In Study 1, we gathered responses at two different time points from two hierarchical levels (top management teams and middle managers), but we had a relatively small sample of 63 CEOs. In Study 2, we obtained a larger CEO sample but had a cross-sectional design and used abbreviated measures. However, the two studies are complementary and generate consistent findings. For stronger causal inferences, future research might conduct a longitudinal design with full measures of humility, narcissism, and socialized charisma, and objective measures of innovation. In addition, we did not include both innovation criteria in one study, so we could not completely replicate the findings or test innovative culture as a mediator between CEO traits and innovative performance. Last, we tested the paradox perspective in a sample of Chinese CEOs, mostly men. Cross-cultural research implies that East Asians are more able to embrace paradoxical traits (Spencer-Rodgers et al., 2004). Leadership research has found gender differences in the effectiveness of narcissistic leadership (De Hoogh, Den Hartog, & Nevicka, 2015). Future research should examine whether our findings would generalize to Western CEOs and whether the effects would differ among women CEOs. Some evidence indicates that humility and narcissism interact positively among Western supervisors (Owens et al., 2015), but other evidence suggests that humility alone can facilitate the pursuit of ambidextrous strategy among American technology CEOs (Ou, Waldman, et al., *in press*). It will be interesting to examine whether Western CEOs can benefit from the humility and narcissism trait paradox. In terms of gender differences, women CEOs are expected to demonstrate nurturing and communal behaviors that comply with their gender roles. As women's gender roles comply with humility

and deviate from narcissism (Koenig, Eagly, Mitchell, & Ristikari, 2011), we are uncertain as to whether combined humility and narcissism will benefit women CEOs.

Our study is a pioneering attempt to study CEO traits from a paradox perspective. We suggest that future research should examine how two seemingly opposite traits, such as humility and narcissism, function within the same individual. Working with paradoxes may require separating two tensions temporally or spatially, finding new perspectives to eliminate contradictions (Poole & Van de Ven, 1989), and harmoniously accepting and transcending tensions (Smith & Lewis, 2011). For example, a recent study showed that effective leaders can treat subordinates uniformly while allowing individualization, maintain decision control while allowing autonomy, enforce work requirements while allowing flexibility, and maintain both distance and closeness (Zhang et al., 2015). However, we know little about the actual processes by which paradoxical traits reach a dynamic balance.

Researchers can also adopt the paradox perspective to examine other contradictory traits and determine how CEOs can use them. For example, Delgado-García and De la Fuente-Sabate (2010) examined CEOs' positive and negative affects but did not ascertain whether contradictory affective traits can coexist or whether coexistence can make CEOs more effective or less effective.

Scholars can also explore the outcomes of coexisting yet contradictory personal values. Previous studies examining CEO values (e.g., Chin, Hambrick, & Trevino, 2013; Fu, Tsui, Liu, & Li, 2010) often assumed that CEOs choose to be self-enhancing, self-transcending, liberal, or conservative. However, they may have paradoxical or ambivalent values, which may trigger integrative cognitive and emotional mechanisms or generate pluralistic organizational solutions.

Conclusion

In two studies, we introduce the paradox perspective to the upper echelon literature. We offer preliminary findings showing that CEO humility and narcissism can interact to enhance socialized charisma and firm innovation. We hope our study stimulates more attention to inconsistent but possibly complementary leader characteristics and their pluralistic potential in human agency.

Appendix I. Humility, narcissism, and socialized charisma scale items

Humility

1. This person actively seeks feedback, even if it is critical.
2. This person admits it when he or she does not know how to do something.^a
3. This person acknowledges when others have more knowledge and skills.
4. This person takes notice of others' strengths.
5. This person often compliments others on their strengths.
6. This person shows appreciation for the unique contributions of others.^a
7. This person is willing to learn from others.
8. This person is open to the ideas of others.^a
9. This person is open to the advice from others.^a

Narcissism

1. I know that I am good because everybody keeps telling me so.
2. I like having authority over people.
3. I find it easy to manipulate people.
4. I insist upon getting the respect that is due to me.^a
5. I am apt to show off if I get the chance.
6. I always know what I am doing
7. Everybody likes to hear my stories.
8. I expect a great deal from other people.
9. I really like to be the center of attention.^a
10. People always seem to recognize my authority.
11. I am going to be a great person.
12. I can make anybody believe anything I want them to.
13. I am more capable than other people.^a
14. I think I am an extraordinary person.^a

Socialized charisma^b

Idealized influence

1. He/she emphasizes the importance of having a collective sense of mission.^a

Inspirational motivation

2. He/she talks enthusiastically about what needs to be accomplished.^a
-

^a Items used in Study 2.

^b Only sample items are listed due to copyright protection.

Appendix II. Summary of measure length reduction procedures for Study 2

We used abbreviated measures of humility, narcissism, and socialized charisma in Study 2. We utilized data from Study 1 to shorten the measures of humility, narcissism, and socialized charisma based on Stanton et al.'s (2002) three criteria. Specifically, items selected should have (1) *internal quality* by showing reasonably high factor loading contributions to and correlations with the full measure, (2) *judgmental quality* by showing reasonable coverage of the construct content domain and demonstrating clarity, face validity, and relevance to the sample, and (3) *external quality* by showing reasonable connection with variables within the construct's nomological network. We also assessed the reliability, convergent, discriminant, and criterion-related validities of the shortened measures using data from Study 1.

- 1) For internal quality, most items in the shortened measure exhibited reasonably high factor loading contributions to and correlations with the full measure. A few items had slightly lower factor loadings and correlations with the full measure, but we decided to use them because they covered important non-redundant aspects in the construct content domain.

	Factor loading	Item correlation with the full measure
Humility: $N = 328$ (TMT members who assessed CEOs)		
2. This person admits it when he or she does not know how to do something.	0.62	0.63 ^a
6. This person shows appreciation for the unique contributions of others.	0.70	0.67 ^a
8. This person is open to the ideas of others.	0.75	0.74 ^a
9. This person is open to the advice from others.	0.75	0.74 ^a
Item average of the full measure	0.70	0.70 ^a
Narcissism: $N = 63$ (CEO self-report)		
4. I insist upon getting the respect that is due to me.	0.44	0.46 ^a
9. I really like to be the center of attention.	0.73	0.72 ^a
13. I am more capable than other people.	0.77	0.77 ^a
14. I think I am an extraordinary person.	0.50	0.53 ^a
Item average of the full measure	0.60	0.61 ^a
Socialized charisma: $N = 328$ (TMT members who assessed CEOs) ^b		
1. He/she emphasizes the importance of having a collective sense of mission.	0.80	0.80 ^a
2. He/she talks enthusiastically about what needs to be accomplished.	0.78	0.77 ^a
Item average of the full measure	0.71	0.71 ^a

^a $p < 0.01$.

^b Only sample items are listed due to copyright protection.

- 2) For judgmental quality, three authors and subject experts have examined the items in terms of coverage, clarity, and relevance to the example. The original measure of humility has nine items and three dimensions: willingness to know one's strengths and weaknesses, appreciation of others, and openness to improvement. We selected four items and ensured that at least one most representative item was retained for each dimension. For narcissism, we selected four items of the original 14 items that are relevant to CEOs. For socialized charisma, we included items that emphasize the moral aspects and sacrifices for collective good. The items also have a balanced coverage of the dimensions: we selected four out of eight items for the dimension of idealized influence, and two out of four items for the dimension of inspirational motivation.
- 3) For external quality, we compared the correlations between the shortened measures with the full measures as well as the dependent variables of innovative culture and socialized charisma.

The correlations between the full measures and the abbreviated measures were high, supporting convergent validity of the shortened measures: for humility, $r = 0.90$, $p < 0.01$; for narcissism, $r = 0.89$, $p < 0.01$; for socialized charisma, $r = 0.98$, $p < 0.01$.

We then followed Zou (2007) to examine whether the full measures and abbreviated measures differ in their correlations with criteria variables. As shown in Column C, the confidence intervals of the correlation differences all included zero, suggesting that none of the differences was significant. Therefore, the abbreviated measures had similar discriminant, criterion-related validity as compared to the full measures.

Correlation	Full measure (Column A)			Abbreviated measure (Column B)			Comparison (Column C)	
	95% CI			95% CI			Zou (2007)'s interval	
	R	Lower	Upper	R	Lower	Upper	Lower	Upper
$R_{Humility - narcissism}$	-0.07	-0.33	0.18	-0.20	-0.45	0.06	-0.03	0.28
$R_{Humility - charisma}$	0.36	0.12	0.59	0.33	0.09	0.58	-0.10	0.14
$R_{Humility - innovation}$	0.22	-0.03	0.47	0.20	-0.05	0.45	-0.13	0.09
$R_{Narcissism - charisma}$	0.18	-0.07	0.44	0.07	-0.19	0.33	-0.02	0.23
$R_{Narcissism - innovation}$	-0.01	-0.26	0.25	-0.08	-0.34	0.18	-0.19	0.04
$R_{Charisma - innovation}$	0.34	0.10	0.58	0.33	0.08	0.57	-0.05	0.07

4) For reliability, as compared with full measures, the shortened measures showed lower reliability in Study 1 but acceptable reliability in Study 2.

	Study 1	Study 2
Humility (full)	0.86	-
Humility (short)	0.71	0.75
Narcissism (full)	0.86	-
Narcissism (short)	0.63	0.77
Socialized charisma (full)	0.91	-
Socialized charisma (short)	0.87	0.83

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