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ARTICLES

THE ORIGIN OF FAILURE: A MULTIDISCIPLINARY APPRAISAL OF THE HUBRIS HYPOTHESIS AND PROPOSED RESEARCH AGENDA

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The hubris hypothesis complements the extant debate on how people make judgments and decisions in organizations. Drawing on the origin of hubris in Greek mythology, the psychological approach, and finance studies, this paper portrays an informed picture of the current status of managerial hubris literature that develops a more advanced understanding of what is known about hubris. We present a conceptual map that provides a comprehensive appreciation of hubris antecedents-symptoms-strategic choices-feedback performance main cause effect relationships. Our proposed conceptual map draws on the idea that managerial hubris is one of the determinants of CEO judgments, strategic choices, and organizational performance. We also show that managerial hubris has a good side and a bad side and identify the implications for strategy formulation and implementation. By doing so, the study not only provides a multidisciplinary introduction to hubris that is tailored to scholars, but also distills a suite of suggestions for managing hubris symptoms and traps that may prove valuable to practitioners.

Self-confidence is typically believed to be a quality of leadership. It helps leaders formulate creative and striving visions (Luthans, Luthans, Hodgetts, & Luthans, 2001; Shipman & Mumford, 2011) and brings a sense of excitement and enthusiasm (Chemers, Watson, & May, 2000) and a willingness to take risks (Luthans & Peterson, 2002). However, there is a downside. Excess self-confidence may engender excessively ambitious strategies, exaggerated decisiveness, impulsivity and need for power, and spontaneous risk taking. The consequences of these actions may be catastrophic. Some corporate failures, such as Enron, Global Crossing, the National Kidney Foundation, Tyco, Parmalat, Vivendi Universal, and WorldCom, have been anecdotally attributed to "managerial hubris" (Hayward, 2007)—that is, overconfidence mixed with excessive pride (Judge, Piccolo, & Kosalka, 2009).

CEOs' hubris can lead them to overestimate their capabilities, performance, and chances of success and to accept the higher risks related to grandiose strategies. They often fail to properly tackle changing realities and uncertain settings. Interestingly, hubris bias leads executives to espouse overly simplistic formulas for success, which has serious consequences for performance.

The hubris hypothesis complements the extant debate on managerial judgments and decisions in organization and their impact on firm performance (Chatterjee & Hambrick, 2007; Hayward & Hambrick, 1997; Hiller & Hambrick, 2005; Malmendier & Tate, 2005a; Petit & Bollaert, 2012; Roll, 1986; Skala, 2008). In the past few years, there has been a rapid increase in the number of studies on managerial hubris. A search in business journals that are

The hubris research stream is a relevant part of our investigation portfolio on which we have a multi-annual engagement. We wish to express gratitude to AMP editor Tim Devinney as well as to two anonymous reviewers for their constructive insights that contributed to enhancing the value of this article.

cataloged by Thomson Reuters shows the existence of 182 articles on hubris bias and its influences on managerial judgments and decisions, with the vast majority of those articles appearing just in the past seven years.[1] The recent rapid development of managerial hubris literature is justified by the important influx that overconfident CEOs may have on organizational survival and, more generally, on the welfare of society (Hayward, 2007). It also confirms that managerial hubris has achieved the status of a relevant subject in business studies.

In this paper, we paint an informed picture of the literature landscape of managerial hubris that develops a more advanced understanding of what is known about hubris. In this view, we use a conceptual map to reorganize the key themes in hubris. Three factors underlie the decision to perform and present a critical assessment of the literature on managerial hubris. First, while some advances in the psychological foundations of management research have been made in the past decade through intense conversation in international venues and journals (Levinthal, 2011; Powell, Lovallo, & Fox, 2011), we believe that the time has come to detect and clarify, in a systematic fashion, how the use of the hubris construct has actually developed in the management community.

Second, while prior research has generally applied the hubris hypothesis to a specific context (such as M&A deals, diversification strategy, financial policy choices, corporate social irresponsibility cases, and so on), by detecting a single (significant) manifestation of managerial hubris that led to specific strategies or events, it has contributed to management debate in a pretty fragmented fashion. Quite often when a piece of research is focused on a very specific question, as an old adage says, it may eventually look at some trees and miss the whole forest. In fact, to our knowledge an organized appraisal of managerial hubris is as yet missing.

Finally, a firsthand inspection of the body of journals in which the articles on managerial hubris were published reveals that two research fields—finance and strategic management—have been the most influential in managerial hubris literature.[2] While a study that provides a comprehensive understanding of the hubris hypothesis is missing, this paper advances a few steps to frame the context in which hubris emerges to offer a portrayal of the backbone of the hubris literature that may be helpful for future investigations as well as for executive awareness.

This paper develops four fundamental contributions. First, it approaches the subject from a truly *multidisciplinary* background. Over the past couple of decades the major strands in managerial hubris inquiry have developed their exploration internally in a fairly cumulative way, but they have typically behaved as watertight compartments. Little exchange has developed between and among disciplinary inquiries on hubris, and we believe the time has come to start some. Second, by reorganizing in an original *conceptual map* the main studies on managerial hubris, we supply a nested appreciation of the hubris antecedents-symptoms-strategic choices-feedback performance main cause-effect relationships. Third, by detecting in a systematic fashion the bulk of the extant hubris literature, this study provides a more nuanced understanding of the current landscape of the hubris hypothesis, in-

[1] We consider articles published in Thomson Reuters journals in the 28-year period from January 1985 to March 2013. Our research strategy included two steps. First, we searched key words and phrases including *hubris* and *overconfidence* (or *over-confidence*) in the titles, keywords, and abstracts of published works. While hubris is a concept broader than overconfidence, quite frequently finance and management literatures consider the terms *hubris* and *overconfidence* to be synonymous (e.g., Finkelstein, Hambrick, & Cannella, 2009; Malmendier & Tate, 2005a). Therefore, we used both *hubris* and *overconfidence* in our bibliographic search. Second, we searched key words and phrases including *CEO* and *executive* and *manager* in the titles, keywords, and abstracts of published works. The intersection of the results of the first and the second searches allowed us to focus more specifically on finance, psychology, and management literatures dedicated to CEO hubris. We found 216 articles. We then refined the results according to the following criteria: (a) research domain: social sciences; (b) research areas: business economics; (c) document types: article and reviews (for their lower impact, we excluded proceedings papers and editorial materials).

[2] The number of articles published in finance journals reveals that the *Journal of Financial Economics* is the most influential in the field (11 articles), followed by the *Journal of Finance* (7), *European Financial Management* (6), and the *Journal of Corporate Finance* (5). In the strategic management area, *Administrative Science Quarterly* and *Strategic Management Journal* each presented more articles (8) examining the interaction between CEO hubris, decision making process, and performance and providing implications for the business community than other journals. Six articles on hubris were published in the *Journal of Business Ethics*.

tended as a relevant managerial construct that presents both bright and dark sides. Finally, by advancing a few steps in framing the critical context in which hubris emerges, affects strategic choices, and delivers performance feedback, we are able to gather a few hints that, collectively, shape the contours of an agenda for future investigation in the hubris domain. On this fertile ground, we also manage to distill a small but nontrivial suite of suggestions for managing hubris symptoms and traps that may prove helpful to practitioners.

ORIGIN OF THE HUBRIS HYPOTHESIS

Managerial hubris can be traced to two pioneering contributions. Roll (1986) developed the hubris hypothesis in financial studies to identify an overconfident CEO who overestimates the potential synergy value of acquisitions and, consequently, the advisability of these acquisitions. A decade later, Hayward and Hambrick (1997) introduced Roll's hubris hypothesis in management by studying how much above pre-bid market prices CEOs pay for acquisitions. Since then, managerial hubris has continued to be a theme of interest that challenges traditional assumptions of managerial opportunism and risk aversion (Eisenhardt, 1989a) and examines confidence and risk-taking differences in how people make judgments and decisions.

The concept of hubris comes from Greek mythology (Bollaert & Petit, 2010).[3] First and foremost, hubris identifies a *cognitive bias* that can affect executive choices (Kahneman, Slovic, & Tversky, 1982): arrogance and overconfidence that prevent someone from understanding or accepting human limits. Similarly, CEOs' hubris gives them an inflated self-confidence and causes them to overestimate their talents and abilities. This bias generates misapprehension of control and implausible hopefulness and expectations. Second, although the nature of hubris is apparently positive, the true essence of hubris is revealed only when the action is complete. In Greek mythology, hubris is punished by Nemesis (the spirit of divine retribution). In a similar manner, market performances usually punish managerial overconfidence, as CEOs' hubris causes them to be inclined to attempt high-flying strategies that often lead to catastrophic performance (Hiller & Hambrick, 2005).

DEFINING HUBRIS IN THE PSYCHOLOGY LITERATURE

The term *hubris* first appeared in the 1960s and 1970s in the field of psychology, where it was conceived of as an excess of confidence about being correct or obtaining a certain outcome combined with excessive pride (Fischhoff, Slovic, & Lichtenstein, 1977; Judge et al., 2009; Keren, 1997; Oskamp, 1965; Russo & Schoemaker, 1992).

While confidence reflects a belief—based on analysis of information—in one's ability to perform a specific task well (Bandura, 1997; Gist & Mitchell, 1992), "beyond some early point in the information-gathering process, predictive accuracy reaches a ceiling" (Oskamp, 1965, p. 261). Consequently, because confidence is not based on plausible inferences and explanations that lead people to construct self-consistent and self-evident cognitions, the illusion of accuracy emerges. The line between confidence (or self-efficacy) and overconfidence lies in taking information in a noncritical fashion and in an untenable faith in one's ability to achieve target outcomes.

Besides extreme certainty of being correct or producing a certain outcome, another key driver of hubris is an excess of pride. By asking participants to perform an experiment to estimate how they will execute a given task in a laboratory environment and comparing this estimation to real performance (Fischer, 1982), hubris can manifest itself in three specific ways: (1) overestimation of one's own abilities, outcomes, and probability of success (2) overprecision in one's own beliefs; and (3) overplacement of one's own performance relative to that of others (Moore & Healy, 2008).

Overestimation of One's Own Abilities, Outcomes, and Probability of Success

Individuals affected by hubris usually show a high degree of self-esteem and unrealistic optimism; they think too much of their knowledge and capabilities. Given that individuals affected by hu-

[3] We briefly recall the story of Xerxes, the Persian king who wanted to surpass his father's glory. As told by Aeschylus (in *Persians* 908–930), the young king led an expedition against Greece, but his mighty fleet was destroyed. At last, Xerxes understood the real antecedent of his military mistake: his excessive pride. The tragedy concludes with Xerxes' lament while the chorus repeats the king's own responsibility. Aeschylus emphasizes that Xerxes' overconfidence generated his rashness and, finally, a collective ruin.

bris tend to attribute successes exclusively to their dispositions and skills while crediting failures only to external forces (Hastorf, Schneider, & Polefka, 1970), this bias is often associated with an overestimation of the probability to obtain excellent performance (Bazerman & Neale, 1983; Bazerman & Sondak, 1988; Neale & Bazerman, 1985; Thompson & Hastie, 1990). Such individuals irrationally assign high probabilities to the occurrence of good events due to their contribution and low probabilities to the occurrence of unfavorable events (Armor & Taylor, 2002). Frequently, individuals affected by hubris lose contact with reality. They believe they are effective because they think they are able to control external events, especially when they are highly committed to a specific task (Weinstein, 1980). This "illusion of control" (Langer, 1975) generates a strong belief in one's own capacity to predict events, as well as an overstated confidence in one's own abilities to produce excellent results from uncertain conditions. In his analysis of psychologists' clinical judgments, Oskamp (1965) proved that confidence in an expressed judgment and the accuracy of this judgment lie far apart—and they may diverge further as the confidence of a judge or a referee may grow during an evaluation task, while his or her accuracy remains largely unchanged.

Overprecision in One's Own Beliefs

Hubris also leads to miscalibration, when individuals have a tendency to credit a high accuracy rate and correctness probability to their answers (Klayman, Soll, González-Vallejo, & Barlas, 1999). They consider the information, knowledge, and insights they possess to be more accurate than they actually are. The unwarranted belief in the correctness and precision of their answers pushes people affected by hubris to show confidence intervals that are too narrow (Moore & Healy, 2008). In other words, they tend to exclude margins of error in their evaluation.

Overplacement of One's Own Performance Relative to That of Others

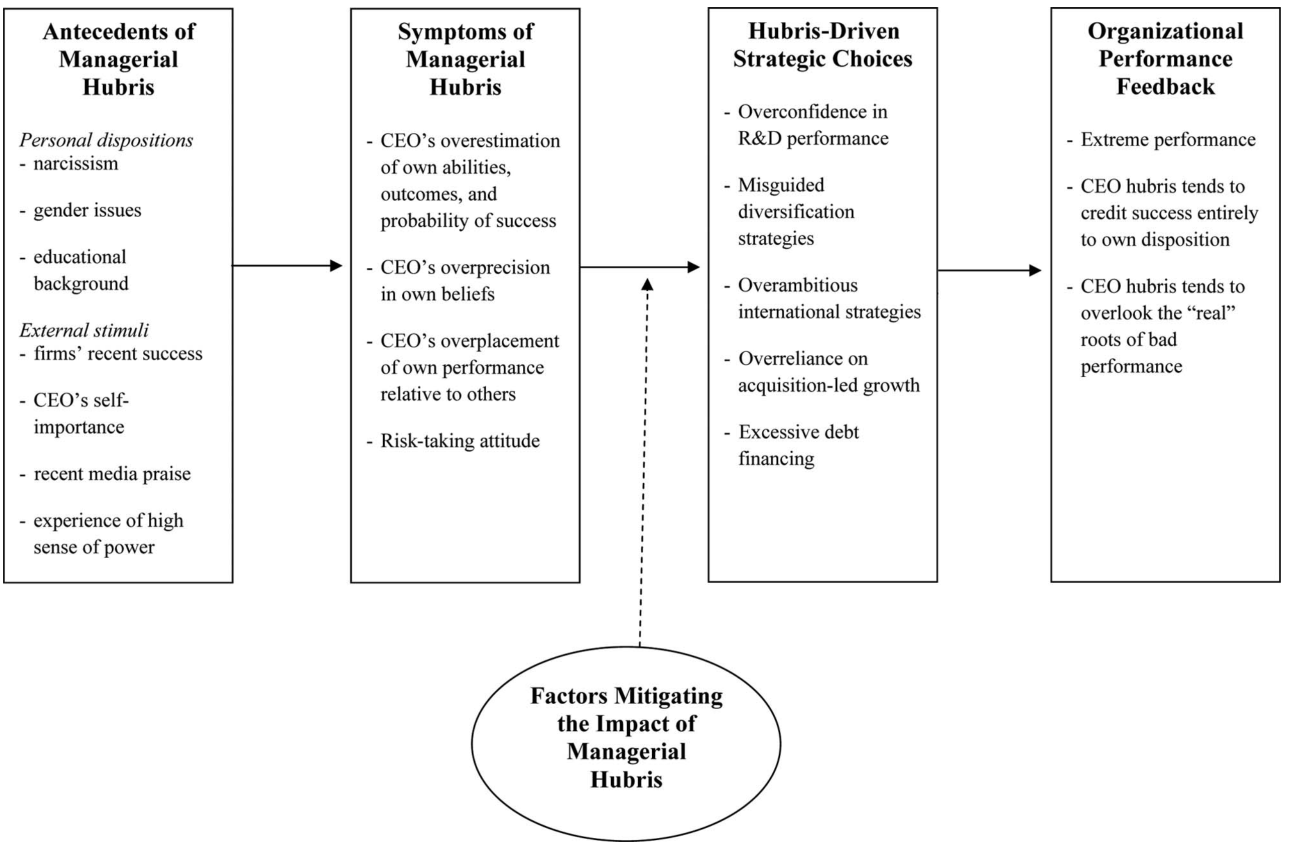
While overestimation of one's own abilities, outcomes, and probability of success and overprecision in one's beliefs focus the attention on self-evaluation and inflated self-confidence, hubris bias also reflects excessive pride (Bodolica & Spraggon, 2011).[4] People affected by hubris believe that their performance is better and more efficient than that of others. This fuels several aspects of pride personality. Sometimes, excessively self-confident individuals are enthusiastic to make public appearances (Baumeister, Campbell, Krueger, & Vohs, 2003) and underestimate the contribution of other people and their capacities (Owen & Davidson, 2009). Their excessive pride causes them to need their successes to be fully recognized by their competitors and to have high degree of hostility toward others.

Psychological studies usually take for granted, either explicitly or implicitly, that these three manifestations of hubris result from the same underlying psychological causes (Moore & Healy, 2008). Hubris is a pathological personality change generated by a combination of personal narcissistic disposition and external stimuli. While narcissism represents a personality disorder (Grijalva & Harms, 2014) underlying hubris cognitive bias, hubris is a joint effect of overconfidence and excessive pride that are "evoked by a specific trigger (power), and usually [remit] when power fades" (Owen & Davidson, 2009, p. 1397). Essentially, a manifestation of hubris emerges when the individual claims a centralization of structural power for an extensive span of time.

Further, centralization of power and personal experiences and events reinforce an individual's pride and assessment of self-esteem and increase his or her self-confidence. Personal experiences and events become cognitive reasons for hubris. They underscore the importance of positive feedback that, in the long run, can lead to a misalignment of confidence and accuracy. In addition, Fischhoff and colleagues (1977) posited a "hard-easy effect" that is linked to hubris. While easy tasks may generate underconfidence (where the proportion of correct answers exceeds expressed probability judgment), overconfidence is related to the fulfillment of difficult or arduous tasks (Lichtenstein, Fischoff, & Phillips, 1982; Suantak, Bolger, & Ferrell, 1996).

[4] The psychology literature provides a distinction between *authentic pride*, which leads to cordiality, agreeableness, and emotional stability, and *hubristic pride*, which is characterized instead by arrogance and is positively connected with disagreeableness (Tracy & Robins, 2004, 2007). We refer to the latter as a symptom of hubris.

FIGURE 1
A Conceptual Map of Managerial Hubris Research



PATHWAY OF MANAGERIAL HUBRIS LITERATURE: AN OVERVIEW

Moving from a review of hubris in the psychology literature, we now look at research on managerial hubris. Because executives affected by hubris bias may have a strong influence on organizational resources and strategy configuration (Workman, 2012), it seems important to understand how this psychological bias emerges and how and to what extent a CEO's psychological makeup may alter his or her strategic choices, behaviors, and performances.

Compared to the general population, CEOs have a greater frequency of hubris bias (Hiller & Hambrick, 2005) because characteristics typical of leaders may lead to managerial hubris. For example, Goel and Thakor (2008) found that overconfident individuals are more likely to move up the ladder and be promoted to CEO than are rational executives.

Most previous studies have paid attention to either the antecedents and symptoms of managerial hubris or their effects on a narrow set of strategic choices (e.g., acquisition premium or investment in R&D). By developing a conceptual map of managerial hubris literature (see Figure 1), we provide a sequential appreciation of the main cause-and-effect relationships: antecedents of managerial hubris, symptoms of managerial hubris (on judgments and decisions in organizations, and on risk taking), hubris-driven strategic choices, and organizational performance feedback. We also review factors mitigating the impact of managerial hubris.

On the left side of Figure 1 (first rectangle), we find the antecedents of hubris, in terms of personal dispositions and external stimuli. In the second rectangle, we find the symptoms of managerial hubris. Specifically, because hubris can manifest itself in three specific ways (i.e., overestimation of one's own abilities, outcomes, and probability of success; overprecision in one's beliefs; and overplacement of one's performance relative to that of others), we consider how each of these symptoms shapes CEOs' interpretation of internal and external situations (Hambrick & Mason, 1984) and, therefore, their judgments, decisions, and risk assumptions. In the third rectangle of Figure 1, we find the strategic choices (such as decision to diversify geographically or with products, acquisitions, and investment in R&D) that may be driven by hubris. At the right side of the figure (the fourth rectangle), we observe the impact of hubris on organizational performance. The conceptual map also encompasses the existence of factors mitigating the impact of managerial hubris (e.g., corporate governance mechanisms, market munificence, and market complexity) on strategy formulation and implementation.

ANTECEDENTS OF MANAGERIAL HUBRIS

Although the meaning of hubris is quite easy to grasp, only a handful of studies (Ben-David, Graham, & Harvey, 2007; Li & Tang, 2010; Simon & Houghton, 2003; Tang, Li, & Yang, 2012) have used surveys to directly assess CEO overconfidence and excessive pride (see Table 1).

In contrast, extant research has managed to recognize consistent and solid instruments to assess hubris indirectly. For instance, Malmendier and Tate (2005a) operationalized managerial overconfidence as CEO option holdings. While rational CEOs prefer to diversify their personal portfolios, CEOs affected by hubris systematically maintain high personal exposure to firm-specific risk because they are (overly) optimistic about future performance (Campbell, Gallmeyer, Johnson, Rutherford, & Stanley, 2011; Gervais, Heaton, & Odean, 2011). Other empirical studies from the finance field use frequent and multiple acquisitions as a proxy for CEO overconfidence (Doukas & Petmezas, 2007; Heaton, 2002).

An alternative fertile line of research is devoted to analyzing dispositional or situational factors that are deemed to be the drivers of the emergence of managerial hubris. This stream has identified a few key antecedents (or sources) of managerial hubris, including narcissistic personality traits. If an executive has excessive self-love and a corporate context that encourages overconfident behavior (Kroll, Toombs, & Wright, 2000), it is probable that he or she will be infected by hubris (Judge, LePine, & Rich, 2006).[5]

Various studies have examined how gender influences overconfidence. They corroborate that men are more overconfident than women and will trade more excessively (Barber & Odean, 2001; Biais, Hilton, Mazurier, & Pouget, 2005; Dahlbom, Jakobsson, Jakobsson, & Kotsadam, 2011). Bhandari and Deaves (2006) specified an additional aspect linked with hubris: background education. They found that highly educated males tend to have a higher certainty level than their less educated counterparts.

Beyond personal elements, the hubris literature recognizes a set of contextual elements that are wellsprings of managerial hubris: (a) a firm's recent success, (b) recent media praise, (c) the CEO's self-importance, and (d) the CEO's sense of power and long tenure in prestigious positions. First, Hayward and Hambrick (1997) recognized in firms' *recent success* the main source of managerial hubris. Since they overemphasize the role they had in explaining past organizational performance, individuals tend to reduce mental efforts to search for higher performance (Mahajan, 1992). When executives attribute the firm's good performance entirely to their leadership, it is likely that they will suffer from hubris. While the firm's recent success is a wellspring of managerial hubris, a prolonged volatility in firm performance may have a negative impact on managerial confidence; poor performance may decrease the executive's sense of confidence and core self-evaluation (Hiller & Hambrick, 2005). However, Gervais and Odean (2001) elaborated a model according to which a tendency to take greater responsibility for success than for failure may lead successful managers to become overconfident.

According to Hayward and Hambrick (1997), the second source of managerial hubris comes from recent media praise. The business press frequently attributes a firm's good performance to the disposition of its strategic leader. These attributions may be instrumental in shaping the CEO's belief that he or she is the architect of the firm's success, rather than recognition of a spectrum of situational and conditional factors that affected the success. By applauding performance and magnifying a CEO's efficacy and control, recent media assessment strengthens his or her stature and may feed into a phenomenon known as "CEO celebrity" (Hayward, Rindova, & Pollock, 2004). Finance studies frequently operationalize CEOs' hubris by counting words in the news media relating to overconfidence or its opposite in proximity to the company name and the keyword *CEO* (Gervais et al., 2011;

[5] According to the American Psychiatric Association (1994), seven of the 14 signs related to hubris regard narcissistic personality disorder, while one is related to antisocial personality disorder and histrionic personality disorder.

TABLE 1
Summary of Main Empirical Research on CEO Hubris and Overconfidence

Article	Primary research area	Research method	Approach to managerial bias	Sample	Main finding
Ben-David and colleagues (2007)	Overconfidence	Quantitative methods	Overconfidence is considered as a miscalibration of beliefs. It is directly assessed using a method drawn from laboratory experiments. The multiple surveys contain questions about overall economy, firm strategies, and firm short-term forecasts.	Sample is the forecasts made by top U.S. financial executives in 6,901 S&P 500 companies.	Executives affected by overconfidence apply lower discount rates to assess future investments. Therefore, they invest more than rational managers.
Hayward and Hambrick (1997)	Hubris	Quantitative methods	Hubris is measured *indirectly* by means of three proxies: (a) recent organizational performance; (b) media praise; and (c) pay differential between CEO and other members of the board of directors.	Sample is 106 acquisitions in the United States from 1989 to 1992.	Managerial hubris is positively correlated with acquisition premium.
Kroll and colleagues (2000)	Hubris	Qualitative methods	Using a narrative approach, it investigates the hubris hypothesis as one of the antecedents of a range of factors underlying overambitious firm goals and strategic mistakes.	Theoretical sample: history-driven account of Napoleon's tragic march home from Moscow.	It examines the consequences of both Napoleon's hubris and the hubris of contemporary business executives.
Li and Tang (2010)	Hubris	Quantitative method	Managerial hubris is directly measured as positive difference of a CEO's subjective evaluation of his or her firm's performance.	Sample is 2,790 Chinese firms.	There is a positive link between managerial hubris and firm risk taking. However, this is stronger when CEOs have greater discretion in decision making.
Liu and colleagues (2009)	Overconfidence	Quantitative methods	Overconfidence is indirectly measured: (a) CEO option exercise timing behavior; (b) media portrayal data; and (c) content analysis of CEO speeches (discourses).	Sample is composed of 3,162 CEOs of 2,129 publicly traded U.S. firms and 1,888 M&A deals from 1993 to 2005.	CEOs overconfidence is inclined to conduct M&A deals. Generally, the impact of CEO overconfidence on firm M&A performance is negative.
Malmendier and Tate (2005a)	Overconfidence	Quantitative method	Managerial hubris is indirectly measured as differences across managers in exercising executive options. The low degree of personal portfolio diversification represents a proxy of overconfidence.	Sample is 477 large publicly traded U.S. firms from 1980 to 1994.	Investment of overconfident CEOs is significantly more responsive to cash flow.
Simon and Houghton (2003)	Overconfidence	Quantitative method	Managerial overconfidence is inferred through interviews and surveys. The data source is transcribed and content-analyzed.	Sample is 55 small computer firms in Georgia.	Overconfidence is positively related with the degree to which product launches were pioneering and, thus, risky.
Tang and colleagues (2012)	Hubris	Quantitative methods	Article is composed of two empirical arguments. Study 1 uses surveys to directly assess the overestimation of the correctness of one's own judgments. In study 2, authors assess executive hubris on the basis of management forecast error.	Sample of study 1 is composed of 2,820 Chinese firms in various manufacturing industries; sample of study 2 is composed of 3,285 firm-year observations. Firms operate in U.S. high-tech industries.	CEOs hubris is liable to innovate. However, this effect is moderated by a few environmental factors.

Hirshleifer, Low, & Teoh, 2012; Malmendier & Tate, 2005b).

The third source of managerial hubris is a CEO's self-importance (Hayward & Hambrick, 1997), caused by an unrealistic sense of superiority and uniqueness along with a need for admiration. Manifestations of hubris emerge when the individual claims authority, obtains an annual compensation much higher than the other members of the board of directors, and accumulates titles and awards for a long time. These things certify managerial superiority and uniqueness: Executives are proud because they perceive that their contributions are extremely important, unsubstitutable, and rare (Hayward & Hambrick, 1997). Managerial self-importance is an indirect measure of holding substantial power—that is, "the potential ability of the CEO to impose his or her overconfident views on the decisions of the firm" (Brown & Sarma, 2007, p. 359).

The fourth source of managerial hubris is having experience of a high sense of power (Fast, Sivanathan, Mayer, & Galinsky, 2012) and tenure (Owen & Davidson, 2009). Actually, the subjective sense of power in the long run, which underlies prestigious roles, drives executives to become further overconfident in their abilities, knowledge, and predictions (Fast et al., 2012).

SYMPTOMS OF MANAGERIAL HUBRIS ON JUDGMENTS AND DECISIONS IN ORGANIZATIONS

Building on the definition of hubris in terms of overestimation of one's abilities, overplacement, and overprecision, scholars have proposed mechanisms that link CEO hubris to the firm's strategic processes.[6] Table 2 summarizes the main effects of hubris symptoms on executives' judgments and decisions in the context of an organization, covering the good side and the bad side of managerial hubris.

CEOs' Overestimation of Their Own Abilities, Outcomes, and Probability of Success

CEOs' miscalibration of their capabilities, unrealistic optimism, and illusion of being in full control of events have a strong impact on their business and strategic analysis (Hayward, Shepherd, & Griffin, 2006).

First, CEOs who overestimate their own capabilities, performance, and chances of success are inclined to develop an overambitious vision (Kroll et al., 2000). An original and striving vision has an important motivational power that may capture the emotions of employees (Bandura, 1997; Chemers et al., 2000; Shipman & Mumford, 2011). However, an overambitious vision may go too much beyond a firm's immediate reach. This is likely an inappropriate response to a competitive situation. In addition, an overambitious vision is not easily achievable and may be perceived as unfeasible and an exercise of pure fantasy. Employees are not stimulated by it (Hollenbeck & Klein, 1987; Van Knippenberg, 2000); rather, it generates a sense of frustration and dissatisfaction.

Second, CEOs' overestimation of their own abilities, outcomes, and probability of success generates a lack of attention to strategy formulation and sustainability (Grant & Visconti, 2006). CEOs affected by hubris draw on their intuition and past successful practices to develop a quick decision process (Hambrick, Cho, & Chen, 1996; Wally & Baum, 1994). Quick decision making is positively associated with sales growth and profitability (Judge & Miller, 1991) as well as with market share gains (Hambrick et al., 1996). Intriguingly, faster decision processes may carry advantages in hypercompetitive settings (D'Aveni, 1994) or high-velocity competitive contexts (Eisenhardt, 1989b; Eisenhardt & Bourgeois, 1988). Despite these positive aspects of quick decision making, paying minimal attention to organization strategy may also be dangerous. Good strategy formulation requires strategic analysis to assess a firm's resources (and, eventually, resource gap), competitive strengths and weaknesses, and so on. When executives overestimate their capabilities and performance, they usually tend to reduce their attention to strategy formulation, sustainability, and performance concerns that are mildly negative or strongly negative (Stone, 1994). Executives affected by hubris can become reluctant or (more likely) unable to see changes in the competitive game (Kroll et al., 2000) or to develop multiple scenarios (Schoemaker, 1993). Barriers to change and CEOs who overflow with complacency make it more difficult to recognize that problems need to be tackled with urgency.

[6] The three key ingredients of hubris (i.e., overestimation, overplacement, and overprecision) may be considered either as distinct or joint items.

TABLE 2
The Impact of Hubris Symptoms on Executive Judgments and Decisions in Organizations

	Good side of hubris	Bad side of hubris
CEO's overestimation of own abilities, outcomes, and probability of success		
• Overambitious vision	Overambitious vision is appealing to followers and stimulates a high motivation level.	Overambitious vision is perceived as unfeasible and as an exercise of pure fantasy, engendering frustration and dissatisfaction in individuals.
• Low attention to organization strategy	Decision processes are faster and allow for competitive advantages in hypercompetitive contexts.	Managers are reluctant or (more likely) unfit to see changes in the competitive game, as well as to develop multiple scenarios.
• Crystallization of mental maps and management practices	Strategic processes are inspired by the exploitation of CEOs' past successful experiences.	Strategic processes are characterized by inflexibility and mindlessness; executives are unconscious about new priorities.
CEO's overprecision in own beliefs		
• Shallow strategic analyses	Strategy formulation aims to seize business opportunities.	Executives fail to recognize potential problems in a timely fashion and fail to pay attention to potential threats to strategic initiatives.
• Perseverant approach	CEOs instill tenacity in pursuing the firm's strategy and organizational goals.	CEOs appear myopic to changes, even if they are needed.
CEO's overplacement of own performance relative to that of others		
• Strongly centralized decision processes	Strategic decision processes are fast and communication to all the employees is efficient.	Strategic decision making is centralized in a single individual, overlooking the potential contribution of others, even though the CEO lacks the cognitive abilities and technical skills to make those strategic decisions.
• Defensive behavior toward critical feedback	CEOs persistently focus on their own fixed goals and strategies and keep on pursuing them.	CEOs neglect to stimulate organizations to make adjustments in response to critical feedback.

Finally, the overestimation of one's own abilities and performance brings crystallization in managerial practices—that is, executives prefer to repeat actions that allowed them to achieve success. While strategic processes can be inspired by CEOs' past successful experiences, they may suffer from the inflexibility and mindlessness that characterize the hubris-driven decision process. CEOs affected by self-overestimation believe that they have a "recipe" for exceptional performance and swear by its effectiveness. The crystallization of managerial practices encourages successes and carries on numerous subtleties as concerns the accurate recognition of the outcomes that are able to alter internal and external circumstances (Gino & Pisano, 2011).

CEOs' Overprecision in Own Beliefs

Effective strategy formulation involves an orderly and systematic process that has to start from the managerial analysis of environmental dynamics and organizational circumstances. In this vein, CEOs' hubris-shaped strategy formulation is a double-edged sword. On one hand, hubristic CEOs are overly confident that they know the correct answers and have a clear idea of the opportunities underlying a specific strategy. They do not waste their time taking into consideration unlikely scenarios and alternative strategic choices. By leveraging their own intuitions and positive experiences, CEOs affected by hubris are usually able to quickly process information and recognize external opportunities (Hiller & Hambrick, 2005); their strategic decision making is faster than that of rational managers (Hiller & Hambrick, 2005), and they negotiate deals more rapidly (Aktas, De Bodt, Bollaert, & Roll, 2012). These good aspects are, however, offset by the fact that CEOs affected by hubris are frequently unable to see the potential threats in their strategic initiatives and forget to consider the multiple scenarios that may emerge. This means that they are often prone to indulge in shallow strategic analysis.

In addition, overprecision in one's beliefs leads to a perseverant approach to strategic choices. The perseverant approach has a good side and a bad side. The good side is that, although internal and external challenges may cast doubt on the actual strategy and the idea to revise or reverse it may emerge, the CEO stays focused on his or her goals and tenaciously engages in actions to accomplish them. The bad side is that the CEO may appear unwilling or unable to change when it is actually needed. Hubristic CEOs consider a too-narrow range of scenarios, overvaluing the worth, quality, and correctness of information on market dynamics as well as the organizational and strategic choices that can enhance performance. Unsurprisingly, by overlooking alternative scenarios, hubris-driven executives ignore the decision tree of subsequent decisions and consequences (Shipman & Mumford, 2011).

CEOs' Overplacement of Their Own Performance Relative to That of Others

CEOs affected by hubris exhibit excessive pride and reliance on their own abilities to achieve superior performance. Because they hold the core conviction that they possess all the precious knowledge and capabilities, hubristic CEOs typically favor a strategic decision process that is strongly centralized (Miller & Dröge, 1986) on their shoulders. They spend less time deliberating over decisions (Russo & Schoemaker, 1992), and negotiations with employees are more rapid (Aktas et al., 2012). However, hubristic CEOs tend to exclude other individuals from strategy decisions (Tetlock, 2000); the centralization of strategic decisions in a single individual ignores the potential contribution of others, especially when the CEO lacks the cognitive ability and technical skills to make specific strategic decisions.

Hubristic CEOs tend to adopt a defensive posture in the face of critical feedback. The good side of this, as mentioned above, is that they stay focused on their own fixed goals and ideas and persistently chase them, despite internal and external challenges. The bad side is that they tend to pay no heed to other sources of information and viewpoints, especially when these are in conflict with their convictions. While openness to other experiences is generally considered a key element of problem-solving efficacy (Halpern, 2003; McGill, Slocum, & Lei, 1992; Wakefield, 2003), when there is a conflict between subordinates or peers and hubristic CEOs, the latter are unwilling to accept negative evaluations as reliable and significant signals (Smalley & Stake, 1996). In addition, they advance questions about the competence of the evaluator (Kernis & Sun, 1994). Thus, hubris-biased CEOs usually hinder the emergence of practicable ideas (Shipman & Mumford, 2011) and neglect to stimulate their organizations to make adjustments in response to critical feedback.

SYMPTOMS OF MANAGERIAL HUBRIS IN RISK TAKING

Hubris bias shapes managerial attitudes to identifying, evaluating, and reacting to risk faced by firms. We now discuss the effect of overconfidence on risk behavior by focusing on risk propensity and risk perceptions as the main determinants of managerial risk taking (Sitkin & Pablo, 1992).

Risk propensity refers to one's consistent inclination to take or avoid risks (Harnett & Cummings, 1980; Kogan & Wallach, 1964; Sitkin & Weingart, 1995). CEOs affected by hubris are fascinated by the challenge of improving their personal status and respect (Zaleskiewicz, 2001). The narcissistic traits of CEOs' hubris (Owen & Davidson, 2009) are linked to high risk-propensity behaviors (Campbell, Goodie, & Foster, 2004; Foster, Misra, & Reidy, 2009; Lakey, Rose, Campbell, & Goodie, 2008) and lead to a natural tendency to take ambitious and high-flying actions. Generally, CEO hubris aims to enhance his or her self-image in the short run (Chatterjee & Hambrick, 2007) and is not afraid of failure (Elliot & Thrash, 2001).

Risk perception concerns the capacity to assess the risk inherent in a given situation (Sitkin & Pablo, 1992). Commonly, hubris bias leads to a low level of risk perception for two main reasons. First, hubris bias affects the recognition of the possibility of success and failure (Chatterjee & Hambrick, 2007)—the perception of risk quality. Hubristic CEOs overestimate the likelihood of accomplishing excellent performance[7] and underestimate the possibility of poor performance or failure (Li & Tang, 2010). Executives' overestimation of their own abilities leads them to overemphasize their contribution to organizational success and their problem-solving capacities (Camerer & Lovallo, 1999). They unintentionally overlook risk because they suffer from the *illusion of control*. This bias generates unrealistic and unlikely expectations of the chances of success (Schwenk, 1984, 1986). In addition, CEOs affected by hubris systematically fail to recognize the uncertainty related to their convictions, and they are inclined to overlook potentially bad performances associated with a strategy stemming from their theories and models (Simon, Houghton, & Aquino, 2000).

Second, hubris bias shapes the perception of the magnitude of the potential gain. While CEOs affected by hubris like grandiose initiatives (Hiller & Hambrick, 2005), they usually fail to appreciate the resources required to start new strategic plans and expect too much from the firm's current resource endowment. Additionally, hubris bias leads them to exaggerate the potential outcomes of a strategic choice (Bollaert & Petit, 2010). This misjudgment occurs, for example, when paying too high a premium for an acquisition (Hayward & Hambrick, 1997).

The impact of overconfidence bias on risk propensity and risk perceptions suggests that CEOs affected by hubris are prone to accepting options in which the risk is not fully compensated in the hope of realizing the positive potential and, therefore, often engage in uninformed risk taking (Busenitz & Barney, 1997; Camerer & Lovallo, 1999; Hiller & Hambrick, 2005). This challenges traditional agency theory assumptions about managerial risk aversion (Eisenhardt, 1989a).

HUBRIS-DRIVEN STRATEGIC CHOICES

While we have acknowledged that hubris bias plays a central role in activating managerial attention and in elaborating new information, the distinctive influence of managerial hubris in shaping strategies calls for further discussion.

Overconfidence in R&D Performance

A source of heterogeneity in firm performance is the ability to recognize the value of new knowledge as well as to acquire and assimilate it into the firm's context. Hubris bias generates an overestimation of the possibilities to envisage and respond to new opportunities and competitive challenges, and, at the same time, an underestimation of the riskiness of R&D investment. In an example of the former, Hirshleifer and colleagues (2012) corroborated a positive relation between managerial overconfidence and R&D activities. Hirshleifer and colleagues (2012) also argued that the benefits of managerial overconfidence are higher in innovative industries because they contain an additional set of good risky opportunities (Gervais et al., 2011; Goel & Thakor, 2008). In an example of the latter—underestimating the possibility of failure—several

[7] In more detail, overprecision in one's beliefs involves both overconfidence about the terms of trade and overconfidence about the opportunities to trade (Galasso, 2010). The former concerns the tendency to credit good performance. The latter regards the managerial idea that a single deal may open multiple strategic windows so that organizations will be able to recognize and capture option values.

studies have shown that CEOs with hubris bias are more likely to pursue innovation (Galasso & Simcoe, 2011; Tang et al., 2012).

Furthermore, hubris bias has some bearing on the type of innovation that firms search. Specifically, greater overconfidence is associated with introducing products that are more breakthrough than incremental (Simon & Houghton, 2003).

Misguided Diversification Strategies

Diversification strategy may be viewed as tackling a managerial hubris problem (Markides, 1996). Actually, managerial hubris generates larger optimism about the emergence of potential synergies among businesses and, thus, leads CEOs to overestimate their abilities and capabilities. Overestimation of their own abilities and capabilities in turn drives executives to accept the higher managerial complexity generally related to diversification (especially as concerns unrelated diversification). In fact, a firm's diversification strategy may be hubris-driven.

Moreover, Andreou, Doukas, and Louca (2011) found a positive relation between overconfidence and diversification, concluding that overconfident CEOs exhibit higher propensity to diversify than non-overconfident managers, and tend to overestimate the benefits and to underestimate the costs of diversification. Interestingly, the overconfident CEO increases the breadth of a firm's business portfolio beyond when the "critical point" is reached (Palich, Cardinal, & Miller, 2000). Therefore, actual costs hamper performance.

Overambitious International Strategies

The most important strategic questions raised by internationalization involve the provision of corporate resources and capabilities in the firm's country of origin and the ability to exploit those resources and capabilities to establish a competitive advantage in another country. Managers may be overconfident in the appropriateness of the knowledge they dominate when they enter into a new geographic market, and show excessive confidence in lessons learned in previous international activities (Crick, 2004). For instance, O'Grady and Lane (1996) singled out the problems generated by managerial overestimation of similarities between countries, while Petersen, Pedersen, and Lyles (2008) found that overconfidence is one of the key factors that explain the narrowing of perceived knowledge gaps in internationalization processes.

Beyond the effects of overconfidence in knowledge and personal abilities, geographic diversification can be driven by CEO ambition. In this perspective, Grant and Venzin (2009) posited that CEOs desire to avoid losing out to rivals on opportunities created by falling regulatory barriers in financial services.

Overreliance on Acquisition-Led Growth

CEOs' hubris may attempt to create value governing wide resource breadth and tapping into economies of scope. Often this desire is implemented by means of M&A strategies. As mentioned earlier, Roll (1986) inaugurated the stream of studies on managerial hubris to explain that acquisitions "are likely to represent positive errors in valuation" (p. 213). In turn, Hayward and Hambrick (1997) showed that CEOs' hubris engages in a more significant number of acquisitions than CEOs not affected by hubris, thereby destroying value for shareholders. CEOs with a high level of confidence overestimate their ability to generate superior returns from acquisitions (Malmendier & Tate, 2008). Moreover, according to Doukas and Petmezas (2007) and Billett and Qian (2008), this bias tends to be higher when CEOs have previously managed a successful acquisition. Executives with recent successes are more prone to implement acquisitions that negatively impact their firms' performance (Liu, Taffler, & John, 2009).

Often times, the hubris hypothesis is considered complementary to other conceptual perspectives. For instance, Seth, Song, and Pettit (2000) confirmed that the hubris hypothesis coexists with the *synergy* hypothesis in explaining foreign acquisitions of U.S. firms; using takeover battles to infer overpayments and synergies, Hietala, Kaplan, and Robinson (2003) concluded that takeover deals are inspired by managerial overconfidence and/or large private benefits. However, their results are not consistent with the traditional agency-based incentive problem.

Interestingly, overestimation of synergies and own abilities generates an inappropriate transfer of resources from stockholders of the acquiring firm to shareholders of the target firm. In addition, under hubris-affected leadership, acquiring firms' performance drops significantly (Baker, Dutta, Saadi, & Zhu, 2012). This occurs since initiatives to make synergy may "actually backfire, eroding customer relationships, damaging brands, or undermining employee morale" (Goold & Campbell, 1998, p. 132).

Excessive Debt Financing

An emerging area of research in financial economics looks at how corporate managers' personality traits may influence corporate financing decisions (Hackbarth, 2008). Among the findings of this research, hubris-affected CEOs overestimate their "own corporate projects and may wish to invest in negative net present value projects even when they are loyal to shareholders" (Heaton, 2002, p. 33). This is particularly the case in firms that have abundant free cash flow, which gives CEOs greater discretion to push an ambitious strategy since they are inclined to take action as this increases their personal prestige. Conversely, in firms with less free cash flow, hubris-affected CEOs are compelled to obtain new financial resources from shareholders or to increase debt amount. As a result, hubris-affected CEOs tend to overinvest when they have abundant internal funds, and restrain investment when they require external financing. And since they overestimate returns and underestimate risk of their investment projects, they consider external funds as disproportionately costly (Malmendier & Tate, 2005a).

Given the different expectations on the investments outcome between equity funders and hubris managers, the former are not willing to raise their investments. In addition, executives affected by hubris judge their firms to be undervalued and equity financing overpriced (Malmendier, Tate, & Yan, 2011). In fact, Lin, Hu and Chen (2005) found empirical corroboration of a positive association between managerial overconfidence and leverage ratios. Notwithstanding that higher debt levels may exacerbate underinvestment, overconfident executives tend to invest earlier than rational managers, thereby attenuating underinvestment. According to Hackbarth (2008), the latter effect dominates the former one and, thus, the benefits of mild biases exceed their costs.

FACTORS MITIGATING THE IMPACT OF MANAGERIAL HUBRIS

While Li and Tang (2010) underscored that we may improve our understanding of managerial hubris if we consider its boundary conditions, we still lack a clear idea of how CEO actions may mitigate the impact of CEO overconfidence.

Not surprisingly, the impact of managerial hubris is stronger when the leader's power is not subject to constraints (Owen & Davidson, 2009). A key factor that affects whether a CEO has larger or more limited discretionary power is the board of directors (Hayward & Hambrick, 1997). When directors are involved in long-range planning, the board represents a corporate governance mechanism able to moderate the capacity of the CEO to exert his or her power in making strategic decisions. In addition, the most plausible interpretation of these findings is that boards controlled by outside directors usually do a better job of mitigating the impact of CEO hubris than boards controlled by inside directors.

More recently, Li and Tang (2010) have also recognized that a few market factors, such as market munificence and market complexity, can mitigate the impact of CEO hubris since they affect executive cognition. Furthermore, the possibility of change in established routines decreases exponentially along with firm age and internal forces. It conversely increases along with the duration of change and the possibility that a CEO's hubris-driven choices may come forward.

ORGANIZATIONAL PERFORMANCE FEEDBACK

We have seen that hubris-driven CEOs are more likely than rational managers to choose optimistic and deliberate value-maximizing strategies. Nonetheless, while managerial self-confidence positively influences firm performance, beyond a certain point the influence of hubris may be negative (Campbell et al., 2011).

Typically, CEO hubris is associated with extreme performance. As mentioned above, the bright side of hubris can lead to extraordinary success (Hiller & Hambrick, 2005). However, when executives display symptoms of hubris, one should expect that their strategy formulation will be weak and that they will embark on overambitious goals. As a result, strategy formulation weakness generates bad performance or failure. Worse still, hubris-affected CEOs quite frequently pay little or no attention to disconfirming evidence of their abilities, previsions, or performance, while overemphasizing strengthening confirmations (Klayman & Ha, 1989; Koriat, Lichtenstein, & Fischhoff, 1980).

Further, low attention credited to bad performance comes to rejuvenate the debate on how exceptional business leaders who are inclined to credit success entirely to their disposition and ability can disastrously affect their firms' survival (Finkelstein, 2004). Often, these executives fall into a *downward* spiral that involves the progressive and incremental destruction of wealth (Collins, 2009; Dagnino, Minà, & Picone, 2013). The starting point is *faulty diagnosis*: Managers fail to look inside success and usually credit the firm's good performance exclusively to their strategic leadership capabilities. This wrong conviction leads to the emergence of hubris bias that then leads sequentially to the appearance of weaknesses in strategy formulation and implementation. Overambitious weak strategy in turn generates poorer performance. However, CEOs affected by hubris are inclined to give no recognition to the *real* roots of bad performance as well as to the dangers associated with it. Rather, in these instances, they tend to formulate new grandiose strategies. The new strategies are generally unreasonable and therefore usually prove unsuccessful. The vicious cycle of overambitious strategy/bad performance/new high-flying strategic choices/failure gives rise to a loop termed the *hubris trap*.

Frequently the downward spiral outlined above may flow into corporate account scandals. Hubristic CEOs hubris are in fact prone to commit opportunistic frauds (Schrand & Zechman, 2011) and have a manifest disrespect for rules (Kroll et al., 2000). Sometimes, they are prone to fake accounting reports to cover previous hubris-driven mistakes (Dagnino et al., 2013).

A PROPOSED RESEARCH AGENDA

Drawing on the comprehensive appraisal of hubris literature, we have provided an improved understanding of current hubris wisdom. In this section we are able to extract the key implications of the hubris literature and pinpoint the major gaps existing in our knowledge. Consequently, we make an unambiguous call for more interdisciplinary and multidisciplinary research that brings together the outcomes of studies from various academic sources such as psychology, financial economics, and management. We shall organize this section by and large as a mirror image of the way we have presented the arguments in the previous parts. In addition, we shall emphasize the opportunity to reconcile managerial hubris studies and strategic leadership inquiry, and underscore some methodological challenges in the hubris literature.

Antecedents of Managerial Hubris

There are several research extensions that could aid our understanding of the antecedents of managerial hubris. In his discussion of agency theory and transaction cost economics teachings, Ghoshal (2005) underscored how extremely selfish managerial logics (such as the ones popularized in business schools, managerial journals, and the popular press) have become especially relevant for defining "acceptable behaviors." Bhandari and Deaves (2006), in turn, have found that highly educated males tend to have a higher certainty level than less educated ones. In this vein, we suggest increased research into how teaching in business schools can affect the emergence of managerial hubris and whether CEOs educated with a management background (i.e., in business schools and executive education programs) have a higher propensity to be overconfident than CEOs with a different education.

Furthermore, a comparative analysis of multiple firms operating in various countries (especially comparing Western and Eastern contexts) would allow us to test the extent to which legal and behavioral differences in CEO power and influence (i.e., legal protection of workers and corporate governance systems) may affect the emergence of managerial hubris. This is a new research line that we propose to the management community interested in hubris.

Symptoms of Managerial Hubris on Judgments and Decisions in Organizations

We noted that empirical studies in the hubris research stream have used various operationalization processes that generally lead to unrelated and difficult-to-compare empirical results. And although the psychology literature has managed to show three key features (i.e., overestimation, overprecision, and overplacement) that usually characterize hubris bias, few studies of managerial hubris have examined the features that characterize hubris bias simultaneously. Such *integrative* studies would be welcome since they could advance our knowledge on the symptoms of a crucial process that affects how people make judgments and decisions in organizations.

As we showed earlier, the nature of hubris is marked by the simultaneous existence of a good side and a bad side. One unanswered question is whether the good side of hubris may offer good answers in specific environmental settings. For instance, can managerial hubris allow good solutions to thrive, at least for some time, in technologically turbulent spaces or chaotic settings (Eisenhardt, 1989b; Eisenhardt & Bourgeois, 1988)?

Symptoms of Managerial Hubris in Risk Taking

To better understand how hubris bias affects risk taking, a promising research space is to link CEO pay, managerial hubris, and risk taking. This research direction might extend Martin, Gomez-Mejia, and Wiseman's (2013) study of executive stock options. Specifically, it would be interesting to understand how managerial hubris mediates the effect of executive stock options (and, more generally, equity-based pay) on risk taking.

Factors Mitigating the Impact of Managerial Hubris

While some recent contributions have detected the moderating role of managerial discretion in the relationship between CEO hubris and firm risk-taking posture (Li & Tang, 2010), the managerial hubris literature has overlooked other factors that mitigate the impact of managerial hubris. Specifically, we posit that control mechanisms of corporate governance (such as ownership concentration, debt financing policy, executive labor market, and corporate control market) that come to limit the (harmful) influence of managerial hubris on strategic choices and performance may have this effect. For instance, in the footsteps of Berle and Means' (1932) renowned argument, the degree of ownership concentration may influence the emergence of hubris-driven strategic choices via hubris's role in affecting managerial discretion. In essence, different kinds of governance may have a different impact on the extent to which a CEO can exercise discretion in strategic decision-making. Future studies may effectively dig deeper into how corporate governance variables affect strategic decisions through their interplay with managerial discretion. Interestingly, the ones above are relevant issues that cut across strategic management and corporate governance domains.

Organizational Performance Feedback

As we have illustrated thus far, hubris bias is a significant factor in firms' catastrophic performance (Hayward, 2007). Nonetheless, we also contend that the two sides of hubris (the good one and the bad one) have not yet received proper attention. As Hayward, Forster, Sarasvathy, and Fredrickson (2010, p. 10) noted, "there may be many situations where heedful and risk-conscious actors should be highly confident, and at high risk of overconfidence, because the longer term benefits of such confidence overwhelm any concern for an error of judgment." Therefore, future studies should try to unpack the black box related to understanding the conditions in which the positive effects of hubris' good side compensate for the drawbacks of its bad side.

In addition, little attention has been paid to hubris's impact on managerial capacity to perceive the root of gains and losses. This condition also affects the firm's risk-taking propensity and may therefore be a good starting point for gaining a deeper understanding of the logic underlining the vicious cycle that connects overambitious strategy, bad performance, and a new wave of high-flying strategic choices.

Managerial Hubris and Strategic Leadership

While an extant strand of research focuses on the consequences of hubris bias on strategic decision-making, the effects of managerial confidence on the relationship between the leader and his or her followers requires dedicated treatment. For instance, future studies may tackle whether those who are appointed to leadership positions are expected to exhibit a positive disposition as concerns good hubris. In this vein, we ask: What is the impact of hubris on leadership posture? And how can hubris involve the leader's behavior? What about the hubris-prone leader's effects on performance? The main drivers connecting hubris and a leader's attitudes have thus far been underresearched in the leadership literature (Hitt, Haynes, & Serpa, 2010; Ireland & Hitt, 1999). In this vein, we suggest that comparative studies of CEO hubris and the emerging stream of humble leader behavior (Owens & Hekman, 2012) and CEO humility (Owens, Johnson, & Mitchell, 2013) may provide an intriguing countervailing perspective to the series of corporate scandals that have been attributed to leaders' hubris.

Methodological Challenges in the Hubris Literature

Since we have observed that the bulk of hubris literature has heretofore used mainly quantitative research approaches, we suggest complementing these studies with process-oriented qualitative studies (Langley, Smallman, Tsoukas, & Van De Ven, 2013). In this vein, case study research methodology seems to be an appropriate methodology since it helps provide a better understanding, prospectively, of how overconfidence evolves over time and, retrospectively, why it has evolved in a specific way. Management scholars may be interested in conducting these kinds of studies, as well as ethnographic studies, longitudinal archival studies, and comparative longitudinal discourse analysis, because they generally attempt to frame out systematic and informed representations of the origin and evolution of hubris symptoms. In doing so, researchers can portray rich narratives of the processes of escalation of hubris commitment over time (Dagnino et al., 2013).

Such case studies could also be of use to practitioners. For example, Finkelstein (2004) argued that in managerial contexts learning from mistakes is much harder than most people think. Prospectively and prescriptively, in-depth qualitative analyses may be instrumental in providing a compelling empirical and conceptual base for the adoption of strategic measures to try forestalling executives' failures in the future. As Finkelstein suggested, studying CEO failures can help managers to discover why they have chosen *irrational* strategies and why these strategies did not work. Likewise, executives may acquire awareness of hubris dangers and traps so that they may be able to circumvent them in the future. Finally, in-depth field longitudinal analyses may be helpful since the detection of early manifestations of hubris may instruct managers to learn how to intervene in time before the firm crisis has already reached its pinnacle.

MANAGERIAL SUGGESTIONS

While for its psychological and behavioral traits and inner complexity we would expect hubris to be a research area specifically tackled by academics, quite surprisingly, roughly 7% of the studies published in managerial journals, such as *California Management Review, Harvard Business Review*, *Sloan Management Review*, and *Long Range Planning*, are hubris-related studies that seek to communicate with managers. These data show that managers are certainly concerned with having access to specific toolkits or guidelines to recognize hubris behavior timely and effectively.

Accordingly, in this paper we convey a conceptual map of managerial hubris literature that is able to present executives with the dangers and traps of hubris that they generally tend to overlook. By better understanding hubris, executives may become more sensitive to how hubris may come to affect them in the course of their professional career. Here, we offer a specific set of management practices that may help managers avoid plunging into hubris's traps.

Antecedents of Managerial Hubris

Executives ought to bear in mind that the formula of past successes is not an unconstrained one; in fact, it usually does not work in subsequent times. By disallowing an approach that is overly past oriented, CEOs may be able, therefore, to keep away from crystallizing mental maps that have granted them success for prolonged periods, such as the cognitive conditions that occurred at Polaroid in the 1990s (Tripsas & Gavetti, 2000), as well in previously thriving technology and managerial practices. Indeed, since CEOs face significant limits to their actions, they are constantly called to acknowledge that firm success does not hinge solely on their unique contribution, which has been referred to as "the CEO effect" (Hambrick & Quigley, 2014).

Symptoms of Managerial Hubris on Judgments, Decisions, and Risk Taking in Organizations

First, executives ought to recognize that it is wise to involve individuals with different educational backgrounds and experiences in boards of directors (Dagnino et al., 2013). However, as we discussed earlier, CEOs affected by hubris tend to overplace their own performance relative to others, and thus are likely to overlook others' opinions rather than being open to ideas coming from people they recognize as experts in a particular field.

Second, in strategy analyses it is worthwhile to explicitly consider scenarios that apparently have low probability of confirmation (and especially the most extreme ones, whether they are pessimistic or optimistic). Doing so may reduce the impact of CEOs' overestimation of the chances of success in the strategic decision process. Indeed, by recognizing the wide range of possible values, CEOs become aware of alternative potential outcomes. Therefore, CEOs should examine all possible alternatives with equal attention to reduce the risk of focusing exclusively on the possibilities of success.

Third, to promote an environment open to diverse and even conflicting worldviews, CEOs should promote an organizational culture of diversity and openness of opinions.

Fourth, CEOs should communicate their own proposals and evaluations only after advisers and consultants have advanced their own suggestions in a roundtable fashion. This practice will ensure that advisers and consultants are not just deferring to the CEO.

Organizational Performance Feedback

It is noteworthy that executives need to analyze strategic performance by establishing periodical performance reviews and appraisals (Chang, Ferris, Johnson, Rosen, & Tan, 2012; Levy & Williams, 2004). Periodical, planned, and systematic meetings with the board of directors and/or external consulting may help executives to check the validity of their organizational strategy and, when necessary, to make adjustments. In addition, if the firm has recently experienced poor performance, CEOs should not live this outcome as a personal defeat, but look at it with *moderate detachment*. This does not mean denying bad performance, but rather seeking to recognize and properly weigh their sources and effects.

CONCLUSIONS

This paper advances an inclusive appreciation of managerial hubris and discusses the psychological, financial, and management origins of this flourishing literature. Since studies on managerial hubris show that different disciplines have different concerns and empirical approaches, we have detected both consistencies and inconsistencies in the studies performed within and across disciplines. By doing so, we have therefore managed to provide a *multidisciplinary* appraisal of previous contributions, gathering and exploring the main links among them.

The multidisciplinary assessment of the hubris hypothesis has been offered by developing a conceptual map of hubris literature that identifies antecedents, symptoms, strategy choices, and organizational feedback performance, as well as factors mitigating the impact of hubris on strategic choices. The proposed conceptual map draws on the idea that managerial hubris is one of the key determinants of CEO judgments, strategic choices, and organizational performance. Intriguingly, we show that managerial hubris has a good side and a bad side, and detect their implications for strategy formulation and implementation.

Drawing on the comprehensive appraisal of the conceptual landscape of hubris and identifying promising gaps, important unexplored questions, and limitations of previous studies, we gather a set of research paths for future inquiry. Accordingly, this paper may help researchers with various interests (e.g., in decision-making processes, risk management, strategic leadership, corporate governance, and so on) to position their contributions in the actual landscape of managerial hubris investigation. In addition, the proposed hubris conceptual map may be able to alert managers to hubris threats. In this perspective, we advanced a suite of managerial suggestions to help executives avoid falling into hubris traps.

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