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**The dark and bright sides of hubris: Conceptual implications for
leadership and governance research**

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The dark and bright sides of hubris: Conceptual implications for leadership and governance research

Abstract: Hubris among corporate leaders has recently gained much academic attention, with strategy and corporate governance research focusing mainly on negative aspects, such as overreach by strategic leaders during acquisitions. However, adjacent disciplines including entrepreneurship and innovation identify positive consequences too. How comparable are these findings? Appraising the conceptual and methodological approaches, we find that while the hubris concept has many strengths, several challenges remain. We suggest conceptual and empirical research directions aimed at increasing construct clarity, validating the hubris construct, and extending the scope of hubris research. We also propose that research with boards and top management teams can help clarify how they make decisions to cope with the “dark side” of hubris without suppressing “bright side” outcomes.

Keywords: Hubris, overconfidence, board monitoring, construct clarity, mergers and acquisitions

Introduction

The collapse in 2008 of the Royal Bank of Scotland (RBS) during the global financial crisis may have been in part a result of weak corporate governance. But there are reasons to believe that psychological factors also played a role in this specific case. RBS arguably failed at least in part because of the board’s excessive confidence in the talent of its chief executive in identifying and executing acquisitions. The last – leading a consortium in 2007 to acquire the Dutch bank ABN Amro – left RBS highly leveraged and thus more vulnerable when its US-based acquisitions fell victim to the horrors of subprime mortgages (FSA, 2011).

It could be surmised that the ABN Amro bid was not obviously in shareholders’ interests even before disaster struck. The rival bidder was Barclays, and the competition between them

ratcheted up the cost of the acquisition. Barclays was a domestic rival of RBS in the UK market for banking services and an international rival in investment banking. But its base of mainstream, long-term shareholders was largely the same institutional investors as for RBS (Burgess, 2007a; Burgess, 2007b). The more each bank bid, the worse off joint shareholders of both banks would be. If the deal was not for shareholder value, then it must have had a different motivation. With the benefit of hindsight, one such motivation may well have been excessive confidence – of the CEO, and of the board and senior managers – in short, hubris, and the tolerance of it.

But does this tale tell the whole story? Only a few years earlier, RBS had bought the much larger National Westminster Bank – a coup followed by a highly successful integration with substantial cost savings – and then acquired large retail banking operations across the United States. That is, largely the same management team that failed so badly in 2007-08 had established a track record of audacious takeovers – to acclaim.

In recent years, and especially since the financial crisis, hubris has attracted considerable attention (Berglas, 2014; Claxton et al., 2015; de Haan, 2015; Haynes et al., 2015). The word “hubris” conjures up images from Greek mythology of Icarus, with his wings of wax and feathers, flying too close to the sun and falling to his death (Petit and Bollaert, 2012). It has been called “a potentially dangerous cocktail of over-confidence, over-ambition, arrogance and pride” (Sadler-Smith et al., 2017). Attempts to analyze it rely more prosaically use a definition of “exaggerated self-confidence” (Hayward and Hambrick, 1997: 103).

Yet the concept of hubris is elusive and contested, which has given rise to a variety of specific constructs in empirical research to capture hubris. This research overwhelmingly – though not entirely – regards hubris as a negative phenomenon: executive excess and self-serving behavior (Rus et al., 2012) and director negligence (FSA, 2011) in monitoring their work. But hubris appears to have beneficial effects, as we explore below, in some empirical studies of innovation and

entrepreneurship, on facets of the creative work of executives, and on the “service” function of directors.

This article uses studies on hubris across management fields to deconstruct its dimensions and assess hubris against criteria for concept evaluation. We examine its treatment in the empirical literature on strategic decision-making, identifying the conceptual variation and differing approaches to constructs and measurement. Next, we evaluate the concept against the criteria established by Gerring (1999). This evaluation contributes to the leadership and corporate governance literatures by clarifying terms and understanding the range of constructs in use. It also highlights several strengths of the hubris concept and illuminates an agenda for overcoming its weaknesses in research on strategic leadership, the broad field where strategic management and corporate governance meet.

Hubris in management research

Scholars have shown considerable interest in the impact of hubris on management decisions, such as acquisitions (Billett and Qian, 2008; Chatterjee and Hambrick, 2007; Hayward and Hambrick, 1997; Li and Tang, 2010; Malmendier and Tate, 2008; Roll, 1986), startup businesses (Hayward et al., 2010; Simon and Shrader, 2012), and innovation (Vecchio, 2003; Englmaier, 2010). One of the first treatments of the hubris hypothesis was Roll’s (1986) application of it to mergers and acquisitions – and hubris research has since gained importance as it also integrates findings from organizational behavior (Campbell et al., 2011; Claxton et al., 2015; Haynes et al., 2015; Fast et al., 2012; Ford, 2006) and psychology (Anderson et al., 2008; Owen and Davidson, 2009).

Some scholars label hubris a “colloquial concept,” lacking sound methodological underpinnings (Hiller and Hambrick, 2005: 298). Moreover, there may be significant overlaps with existing constructs such as narcissism (Campbell et al., 2011; Rijsenbilt and Commandeur, 2013), core self-evaluations (Hiller and Hambrick, 2005), and overconfidence (Malmendier and Tate,

2005a; Malmendier and Tate, 2008). These constructs can inform business practice, for example, by serving as criteria for recruiting senior executives and board members, or by constituting elements subject to performance evaluation. Conflating them with hubris might lead to poor decisions. Nevertheless, rich empirical evidence on hubris suggests that this concept can add value, provided that its weaknesses can be overcome (Picone et al., 2014).

Trait-based literature on leadership generally adopts a negative, “dark side,” interpretation of hubris (Claxton et al., 2015; Haynes et al., 2015; Petit and Bollaert, 2012), and similar work informs practitioner evaluations of senior managers and teams (Hogan Assessments, 2018; Douglas et al., 2012). Drawing on interpretations of the actions of political leaders in a medical journal, Owen and Davidson (2009) diagnose what they term the “hubris syndrome” as a combination of aspects of three known personality disorders: the anti-social, the histrionic, and the narcissistic, together with several characteristics unique to hubris.¹ Hubris is also discussed as the “dark underbelly” of leadership (Goldman, 2009: 11) and as an outcome of destructive leadership (Thoroughgood et al., 2018). Where a “bright side” appears, it comes either as a balancing trait of another actor against the hubris of the leader (Kets de Vries, 1990) or as another trait of the leader that helps to overcome the effects of hubris.

As argued by Judge et al. (2009: 870), “As leaders, those with hubris are likely to project power, strength, and authority in difficult situations, inspiring confidence among their followers and peers.” This is echoed in leadership studies, where “authenticity” is an antidote to hubris (Bodolica and Spraggon, 2011; Tracy and Robins, 2007). Judge et al. (2009) posit another view, one where “dark side” (socially undesirable) traits may have “bright side” effects if a forceful leader takes control of an ambiguous situation and accepts responsibility.

Corporate governance research employs the concept mainly in the context of risk in strategic decisions (e.g., Aktas et al., 2016), praise for early successes (Lawrence et al., 2011),

exceptional share buy-backs or other forms of executive overreach (e.g., Rost and Osterloh, 2010; Shu et al., 2013). Such studies emphasize the “control” perspective in governance, anchored in agency theory. In contrast, Zhang et al. (2016) resonate with the literature on entrepreneurship and innovation, finding that investors are more willing to trust younger CEOs than older ones. Some articles point to the monitoring function of independent boards (Lewellyn and Muller-Kahle, 2012; Hayward and Hambrick, 1997), while others focus on enhanced shareholder interventions (Pirson and Turnbull, 2011), which deter managerial excess or punish it after the fact. A separate stream of research concerns the effects of such excess: in particular, frequent under-performance after mergers and acquisitions (Bethel et al., 2009; Nogata et al., 2011; Zhu, 2013).

These findings point normatively to structural mechanisms that may contain the negative impact of hubris (Li and Tang, 2010; Tang et al., 2015b). Aktas, Croci, and Simsir (2016) highlight potential cost savings that strong governance mechanisms can generate in the takeover market, whereas Hayward and Hambrick (1997) identify the moderating effect of board vigilance in takeovers. Board vigilance is also required in day-to-day activities because hubristic managers perceive illegal activities as less risky, i.e., hubris is empirically linked to the probability of engaging in illegal behavior (Mishina et al., 2010).

However, the leadership and governance literatures have largely overlooked how hubris is treated in entrepreneurship and innovation, with links to the boundary-spanning role of outside, non-executive directors associated with the “service” perspective in corporate governance (Hillman and Dalziel, 2003). Focusing on that direction can provide a more rounded view of executive overconfidence and boards.

Empirical evidence related to hubris

As detailed summaries of the hubris literature are available (Picone et al., 2014; Bollaert and Petit, 2010; Sadler-Smith et al., 2017), we only briefly highlight key empirical findings that help us

understand the conceptual challenges. In particular, we aim to understand whether, and to what degree, these findings are comparable. This review points to three types of strategic decisions where hubris is often depicted: mergers and acquisitions, entrepreneurship, and innovation. It is important to note that, in most instances, decisions of the most senior corporate managers are analyzed.

The “dark side” interpretation of hubris is evident in the literature on mergers and acquisitions. Early work developed the theoretical argument that hubris is negatively associated with acquisition success (Roll, 1986). Results of subsequent empirical studies support the hypothesis that hubris is associated with CEOs paying higher premiums for acquisitions, associated with lower stock market returns (Hayward and Hambrick, 1997). Several studies show that hubristic CEOs are more likely to engage in acquisitions and that these CEOs tend to make value-destroying acquisition decisions (Brown and Sarma, 2007; Malmendier and Tate, 2008). Serial acquirers destroy shareholder wealth in later acquisitions, particularly when first acquisitions were successful (Billett and Qian, 2008) – implying that hubris often develops over time (Raj and Forsyth, 2003), thus becoming an acquired disorder (Sadler-Smith et al., 2017).

In contrast, the entrepreneurship literature points to important psychological differences between entrepreneurs and managers of large corporations. Entrepreneurs show greater overconfidence (overestimating the probability of being right) and representativeness (generalizing upon small non-random samples) than top managers (Busenitz and Barney, 1997), sometimes with the benefit of leading to quick decisions to exploit transient opportunities (Hayward et al., 2010). Baron (2000) suggests that entrepreneurs are less likely to engage in counterfactual thinking (i.e., to think about what might have been if they had decided differently). In uncertain, complex environments, a lack of counterfactual thinking facilitates the entrepreneurs’ decision to start a

business (a beneficial effect), but may also lead to insufficient analysis, which reduces the chances of success (Simon and Shrader, 2012).

Similarly, many individuals begin new ventures despite high risks of failure (Vecchio, 2003; Zahra et al., 2006). Camerer and Lovallo (1999: 307) examine alternative explanations and among them, specifically, reference group neglect – i.e., that many startup decisions are mistakes caused by overconfidence. This effect is consistent with the proposition that overconfident individuals put a disproportionate amount of weight on their own judgment as opposed to objective information. Wickham (2006) shows in an experimental setting that overconfident individuals trust their own judgment over the views of others. Hence, entrepreneurs do not *seek* more risk than other managers; they *perceive* less risk (Vecchio, 2003). From the outside, such behavior may appear irrational. Nonetheless, and even though many new businesses fail, such new ventures benefit society because they often lead to innovations that increase social welfare (Bernardo and Welch, 2001). For some entrepreneurs, this “irrationality” leads to successful businesses that make them very rich too. Thus, entrepreneurial, hubristic overconfidence can have desirable side effects.

Finally, we also see parallels in research on managers’ pursuit of innovation, where hubris may have desirable effects due to uncertainty, complexity, and long feedback delays (Hayward et al., 2006). Hiring an overconfident manager can signal commitment to research and development (Englmaier, 2010). Overconfident managers can be effective in convincing investors and employees to support investments in innovation (Vecchio, 2003) in both large, public corporations and small firms. The effect of overconfidence on managerial innovation is stronger in innovative industries (Hirshleifer et al., 2012) and competitive industries (Galasso and Simcoe, 2011), but weaker where the environment is more munificent and complex (Tang et al., 2015a). Based on a wide-ranging review, we selected illustrative studies that show the diversity of hubris measures and findings within each strand of the literature. Appendix 1 provides an overview of studies falling

into each one of the three main strands in hubris research: acquisitions/financial decisions, entrepreneurship, and innovation. To bring greater clarity to the research constructs in use, we need first to examine the concept of hubris.

Concept Evaluation

Suddaby (2010) has argued that construct clarity is frequently underdeveloped in management research. Expressions in common use are often employed with differing technical meanings. That can have advantages in emerging research areas, where exploratory work seeks to firm up a more loosely understood concept and seeks to identify possibly significant dimensions, but it also prevents the comparability of findings and hence the accumulation of knowledge.

This highlights a subtle distinction between “concepts” and “constructs.” Constructs convey measurement of latent variables, whereas concepts may simply refer to theoretical ideas. Following this line of thought, Podsakoff et al. (2016: 161) define concepts as abstract cognitive symbols that are “generally not directly observable” and for which “we can only obtain indirect evidence of its relationships with other concepts through its operationalization.” Thus, “constructs” can be seen as elaborations of “concepts,” once the concept itself has achieved greater clarity.

This suggests that before scholars can proceed to, and accumulate, detailed empirical examination, concepts themselves need evaluation. Gerring (1999) has proposed a set of eight criteria to assess strengths and shortcomings of concepts used in the social sciences (see Table 1). While noting tradeoffs in Gerring’s framework, Bjørnskov and Sønderskov (2013) defend it because it allows for a balanced view of relevant criteria, while taking into account that certain criteria (e.g., coherence) are more important than others (e.g., resonance). Moreover, because failure to meet one or more criteria implies low concept quality or validity, “the framework does not lead to an ‘anything goes situation’” (Bjørnskov and Sønderskov, 2013: 1227).

Based on Gerring's framework and in light of Bjørnskov and Sønderskov's appraisal, we use the term "hubris concept" when depicting theoretical interpretation and the term "hubris construct" when discussing measurement and empirical results. The next sections apply Gerring's eight criteria to identify strengths and shortcomings of the hubris *concept*.

**** INSERT Table 1 about here ****

Parsimony and Coherence: Measuring Hubris

According to Gerring (1999), parsimony relates to economy in the defining attributes of a concept, and coherence to the logical link between instances and attributes. Both have direct implications for measurement. We first review measures that researchers have employed to capture hubris in their empirical works. Then we make an assessment in relation to the two criteria.

We acknowledge that taking direct measures, i.e., through surveys, is not always feasible. Many studies of hubris focus on top management and especially CEOs, as their effects are most dramatic. But CEOs rarely participate in studies that would enable the researcher to administer questionnaires containing items for direct measurement. A noteworthy recent exception to this rule is Peterson et al. (2012), who combine CEO self-reported measures of narcissism, such as the Narcissistic Personality Inventory (NPI) and observer ratings of CEOs' narcissism, at different points in time. Additionally, social psychologists treating hubris as a trait apply the well-validated, widely used NPI to assess narcissism (Ackerman et al., 2011). Based on the argument that the upper end of the core self-evaluations (CSE) scale – the so called hyper-CSE – is a good reflection of hubris (Hiller and Hambrick, 2005), CSE is another example for direct measurement but its popularity has not been prominent in hubris research so far. CSEs are the higher-order combinations of self-esteem, generalized self-efficacy, emotional stability, and locus of control. Overall, such a direct approach to measurement offers a more precise way of measuring hubris than the so-called unobtrusive measures discussed next.

Management research investigating CEO hubris (or the related construct of narcissism) frequently relies on indirect measures. Several unobtrusive measures, i.e., observable proxies that supposedly reflect various elements of the hubris constructs, have been recommended (Hayward and Hambrick, 1997). They include linguistic choices of top managers (Amernic and Craig, 2013; Amernic and Craig, 2017), descriptions of CEOs in the business press, the cash compensation differential between the CEO and the second-best paid employee, recent success as measured by standard financial indicators, and photographs appearing in annual reports (Chatterjee and Hambrick, 2007). Measures based on media portrayals assume that CEOs internalize their celebrity status (Hayward et al., 2004).

Similarly, studies in behavioral finance have developed a range of hubris indicators (Billett and Qian, 2008; Brown and Sarma, 2007; Malmendier and Tate, 2005a). For example, Malmendier and Tate (2008) identify hubristic CEOs as those who hold their stock options even when they are already “in the money,” indicating a belief in their ability to achieve future high performance. Deal frequency measures have also been used (Billett and Qian, 2008).

Such unobtrusive measures are now widely used in the literature. They have also been combined with direct assessments of the CEO. For example, Mezas and Starbuck (2003) assess perceptions using the calibration approach to reveal that hubristic managers perceive their organizational environment differently. Other works exploit the deviation between self-reported and objective performance evaluation, using the difference between earnings forecasts and actual earnings as a hubris indicator (Li and Tang, 2010; Tang et al., 2015b).

However, it is unclear whether such proxies measure hubris precisely. At best, the “hubris” interpretation of these proxies is only one possible interpretation. Additionally, particular care is needed when the hubris measure is based on a firm’s level of performance and linked to firm success to avoid the danger of being tautological. While we acknowledge the benefits of

unobtrusive measures when analyzing hubris in large samples, we also realize that their usage is subject to criticism. Consequently, a more precise measurement of the hubris construct is needed.

In conclusion, with regard to *parsimony*, we argue that hubris scores rather low. This is due to the overlap of hubris with related constructs. For example, if as argued by Hiller and Hambrick (2005), the high end of the CSE scale is a good reflection of hubris, its list of attributes increases and becomes a mix of the four underlying CSE traits. Similar rationales apply to hubris when understood as a variant of narcissistic personality attributes.

Similarly, hubris scores low on the *coherence* dimension. First, its unobtrusive measures can be criticized as discussed previously. Second, some sub-dimensions embedded in the CSE scale, such as locus of control or emotional stability, do not contribute much to the hubris construct, whereas the dimensions self-esteem and self-efficacy appear to be strongly related. Third, conceptualizing hubris as narcissism and CSE implies considering it as a trait, or at a minimum as displaying trait-based properties, which stands at odds with increasing its coherence. Defining the hubris construct as a mix of narcissism and CSEs also requires direct measures.

Familiarity: Understanding Hubris

Hubris is a familiar term; is it widely used in lay, professional, and academic circles. A common point of departure for management research (Hayward and Hambrick, 1997), and in behavioral economics and finance (Malmendier and Tate, 2005a), is Roll's (1986) depiction of hubris as an important driver of mergers and acquisitions. Roll (1986) suggests that CEOs unconsciously overestimate their abilities, often overpaying for acquisitions. This "hubris hypothesis" has become an important explanation for acquisition motives (Berkovitch and Narayanan, 1993; Seth et al., 2000; Seth et al., 2002). It also creates a link to behavioral decision research (Kahneman and Tversky, 1979) because takeover decisions affected by hubris are conceived as acts arising in non-rational ways.

Early academic works relied on a common dictionary definition (Hayward and Hambrick, 1997; Roll, 1986). Petit and Bollaert (2012: 266) further developed the concept to a construct with three cognitive dimensions: a “grandiose sense of self,” a sense of superiority, and the conviction that they can operate outside the common rules and laws. They suggest these cognitive dimensions manifest themselves in behavior involving grandiose communication style, poor decisions, and entrenchment. These dimensions seem to have overlaps as superiority, a sense of being above the law, and grandiosity could be difficult to separate conceptually as well as empirically.

Yet such attempts to make the concept more precise hit obstacles by attempting to define its dimensions and in disagreement over more general meaning. For example, Bodolica and Spraggon (2011) follow Tracy and Robins (2007) in distinguishing between “hubristic” and “authentic” pride. While the authentic type describes the justly proud, hubristic pride “is caused by an individual’s faulty belief in constant personal success and supremacy of self over others, disregarding the particular conditions surrounding the self” (Bodolica and Spraggon, 2011: 539).

Some researchers use *hubris* and *overconfidence* interchangeably. For example, Malmendier and Tate (2008: 42) equate them: “A key contribution of our analysis is to directly measure which CEOs are prone to overconfidence (or hubris).” Others draw a distinction. In Bollaert and Petit (2010) and Hayward and Hambrick (1997), overconfidence is more neutral, while hubris has the negative connotation of excessive pride that comes before the fall. Still others, such as Shipman and Mumford (2011: 649), declare, “hubris includes overconfidence, but also extends beyond just overconfidence into constructs like pride and self-worth.” Given the reasoning above, we attribute fairly high scores on the familiarity assessment criterion for the hubris concept, while acknowledging imprecisions in meaning, which we examine next.

Differentiation, Field Utility, and Resonance: Distinguishing Hubris from Related Constructs

It is unclear to what extent hubris overlaps with related constructs, such as narcissism or high levels of core self-evaluations (CSEs). Clearly, the latter speak to Gerring's (1999) criterion of field utility, which is understood as a concept's ability to describe a phenomenon in a way that related phenomena are not negatively affected. To identify differences and commonalities, we select narcissism and CSE because previous work has explicitly linked them to hubris (Hiller and Hambrick, 2005; Judge et al., 2009; Tracy and Robins, 2007).

Narcissism. Strategy researchers define narcissistic CEOs "as those who have very inflated self-views and who are preoccupied with having those self-views continuously reinforced" (Chatterjee and Hambrick, 2007: 351). In social psychology, narcissism has often been classified as a personality trait. Zhu and Chen (2015: 2077) even view it as a "personality dimension for the general population." The Narcissistic Personality Inventory (NPI) is a tool used to diagnose narcissism (Ames et al., 2006; Pincus and Lukowitsky, 2010). In contrast, Owen and Davidson (2009) describe hubris as a characteristic that can be acquired over time and relies on an external trigger, such as accession to power.

There is some debate in the literature about whether narcissism and hubris are distinct constructs. Of Owen and Davidson's diagnosis of 14 characteristics constituting hubris, seven relate directly to narcissism personality disorder (APA, 2013). While not an empirically validated construct, the Owen and Davidson guide to symptoms of hubris shows a strong overlap with narcissism, but its five unique characteristics offer support for some separation. (Appendix 2 provides a comparison of APA and Owen and Wilson's hubris indicators.)

According to Kroll, Toombs and Wright (2000) and Picone et al. (2014), narcissism is an antecedent of hubris, though the authors do not provide empirical support for this assertion. Tang et al. (2015b) argue that narcissism and hubris are different constructs, using corporate social

responsibility activities as examples. Treating narcissism as an overarching latent construct that could manifest itself in the form of hubris seems to be more in line with the literature. Accordingly, Chatterjee and Hambrick (2007: 357) describe narcissism as “the more fundamental, ingrained property” that combines with external stimuli in producing hubris.

Hyper-core self-evaluations. Core self-evaluations (CSEs) are assessments of an individual’s “own self-worth, competence, and capabilities” (Chang et al., 2012: 82), consisting of four traits: self-esteem, generalized self-efficacy, emotional stability, and locus of control. Originally introduced by Judge and colleagues to explain dispositional effects on job satisfaction (Erez and Judge, 2001; Judge et al., 2003; Judge et al., 2008; Judge et al., 1997), the CSE concept is now widely employed as evidenced by a meta-analysis identifying 149 studies that analyze CSEs (Chang et al., 2012). It is common to aggregate the single trait measures into an overarching CSE factor. A scale for direct measurement of CSEs developed by Judge, Erez, Bono and Thoresen (2003) has been validated in various studies (Judge, 2009; Judge and Kammeyer-Mueller, 2011; Stumpp et al., 2010). Hiller and Hambrick (2005) suggest that hyper-core self-evaluations (i.e., the high end of the CSE scale) are associated with the positive effects, but not with the negative effects of narcissism. Studying the CEOs of Major League Baseball organizations, Resick et al. (2009) identify narcissism and CSE as two separate constructs and provide evidence for Hiller and Hambrick’s (2005) argument.

Trait or bias? The related constructs discussed in the preceding paragraphs build on a trait-based conceptualization of hubris. However, it is far from clear that hubris is a trait, a problem we now consider. A *trait* interpretation implies that not much can be done about it, as traits are formed through life stages, experience, socialization and partly through genes (Judge et al., 2009; Buyl et al., 2017). Instead, a *bias* interpretation offers room to maneuver and allows for debiasing techniques to be employed.

Behavioral decision research (Kahneman and Tversky, 1979; Russo and Schoemaker, 1990) establishes overconfidence as an unstable, highly task-specific cognitive bias (Hayward et al., 2010). That interpretation runs counter to the trait-based approach found in social psychology, organizational behavior, and strategic management (Jonason et al., 2012; Pincus and Lukowitsky, 2010; Lubit, 2002). Some studies treat hubris as a manifestation of extreme dispositional optimism (Hmieleski and Baron, 2009), which is deemed a relatively stable personality trait (Trevelyan, 2008). Finally, some studies attempt to reconcile trait- and bias-oriented views. For example, Busenitz and Barney (1997) acknowledge task specificity in overconfidence, but argue that there are differences in the degree to which individuals are subject to this task-specific bias.

While there is agreement on treating hubris as an individual-level construct, there is still a clear “lack of conceptual unity” (Powell et al., 2011: 1371). The construct has undergone variations in its definition and its division into components. This situation makes it difficult for researchers to build cumulative, comparable evidence. Nevertheless, recent studies converge towards its conceptualization as a bias (Picone et al., 2014).

Given our review of related constructs above, and considering the different conceptualizations as trait or bias, hubris scores medium on the *differentiation* criterion. While the constructs of narcissism and hyper-CSEs have strong foundations in psychological research, they are related to hubris yet represent distinct constructs. Additionally, they align closely with the trait-based conceptualizations of hubris; whereas we follow Picone et al. (2014) in their assessment of hubris as a bias. Even so, Hill, Kern and White (2012) argue that consistent use of terminology and the use of convergent measures are key attributes in concept formation, but hubris research falls short in these two aspects of conceptual differentiation. Regarding the *field utility* dimension, hubris scores low if we put it in the same basket with narcissism and CSEs, but it scores higher if we consider the recent trend toward conceptualizing hubris more narrowly as a bias rather than a

trait. Partly spurred by CEO scandals making headline news in the past two decades, the hubris concept has a genuine appeal beyond academic audiences implying good levels of *resonance*. In contrast, its related constructs overconfidence and narcissism seem to be less memorable. One explanation may be that these two related terms may have less emotionally loaded connotations.

Theoretical Utility and Depth

The remaining criteria to be assessed are theoretical utility and depth. The former relates to the added value of a concept, whereas the latter refers to its ability to capture phenomena of interest. The hubris concept has high *theoretical utility*; it links to theoretical phenomena of high interest, such as strategic decisions, investment decisions and risk taking (Li and Tang, 2013). For example, Chatterjee and Hambrick's (2007) and Malmendier and Tate's (2008) treatment of hubristic CEOs in merger and acquisition decision-making emphasizes the value of using hubris as a lens for analyzing strategic decisions. It ties together personality and environmental factors that affect the aforementioned areas. Finally, the *depth* criterion in Gerring's (1999) framework refers to the question whether hubris can explain different phenomena more so than its related constructs. Our review of related constructs supports this notion.

In summary, the hubris concept has several strengths as well as some shortcomings that need to be overcome (see Table 1). Gerring's (1999) criteria should not be seen in isolation. For example, the theoretical and field utility of the hubris concept is only brought to bear if we solve the problems of differentiation. Therefore, we derive recommendations for future research in the next section.

Implications for Future Research

Based on the critique presented in this article, we detail directions for future research below, divided into two categories, a) theory and construct development, and b) field-level issues in strategic leadership.

Theory and Construct Development

We have highlighted the high level of congruence and the occasional interchangeable use of “overconfidence” and “hubris,” at least *conceptually*. However, the common practice of using different terms for the same *construct* is not free from concerns. A clear definition, consistent terminology, and precise measurements are crucial in enabling systematic knowledge creation.

Trait, bias, or something else? To make hubris a workable construct it may be helpful to explore other theoretical perspectives than the trait/bias distinction familiar in the literature of organizational behavior. Building on evolutionary psychology and evidence from neuroscience, McAdams and Pals (2006) suggest personality development beyond the inherited, genetic schema called the innate come in three layers: dispositional traits, characteristic adaptations, and life narratives. These give a more nuanced view of personality development than the trait/bias dichotomy allows. McAdams and Pals (2006) argue that dispositional traits provide templates for behavior that view what is innate as a predisposition but not a commandment. Characteristics adaptations add a learned response of those templates, including motives, virtues, values and goals. These adaptations influence future behavior, which then consolidates into meaning-making narratives that constitute identity. Haidt (2012) links these in the case of moral choices to the rapid responses in dual-process thinking (Kahneman and Tversky, 1979; Stanovich and West, 2000).

From a psychiatric direction, Trumbull (2010) argues that while pride may be a self-serving trait, it may have a prosocial purpose. She distinguishes pride from hubris, however, arguing that the latter, with its emphasis on the danger of retribution, leads to antisocial behavior. In discussing

destructive leadership, the model in Padilla et al. (2007) indicates that personal attributes of a leader interact with a conducive environment and susceptible followers in producing destructive behaviors (see also Thoroughgood et al., 2018). Could it be that such environmental factors also let latent elements in hubris off the leash? If so, then, in situations where the danger of retribution is low, we might expect to see hubris develop.

Building on this literature, empirical research in strategic leadership might help identify differences in hubristic actions. For example, where hubris is seen in a succession of acquisitions – such as the case of RBS at the start of this article – research might show how such decisions rely upon dispositional traits of self-confidence built up through early successes. In what ways do they convert into characteristic adaptations? How do those adaptations gather into a life narrative of success that makes the hubristic leader susceptible to future “dark side” outcomes?

Construct Clarity. Research on hubris presents many remarkably similar definitions between hubris and overconfidence (Hill et al., 2012: 189). Overconfident managers “overestimate their own ability” (Cassar and Gibson, 2007: 286), and hubristic ones are those who have “overconfidence about ability” (Shefrin, 2002: 227). Moreover, in the usage of unobtrusive indicators, there is significant overlap amongst the measures that are applied to study the effects of hubris and overconfidence. When measuring the way an executive is depicted in the media and/or annual reports, the studies refer either to hubris (Hayward and Hambrick, 1997) or to overconfidence (Malmendier and Tate, 2008). Future research needs either to separate these concepts or to reduce confusion arising from the use of very different measures, so that findings of different studies are more comparable. Such work might start efforts to better validate hubris as a construct.

Steps to Validate the Hubris Construct. Efforts to validate the hubris construct are needed. In some instances, such research may find that hubris is empirically indistinguishable from

one of its related constructs. Construct equivalence is not uncommon in the literature. Le et al. (2010) highlighted “empirical redundancy” as a problem, claiming that job satisfaction and organizational commitment may be difficult to disentangle empirically. Similarly, Wright et al. (2013) provide evidence for the equivalence between Grant’s (2008) pro-social motivation measure and a five-item global measure of a construct called “public service motivation” (Alonso and Lewis, 2001), which is widely used in public administration research. One indication for “empirical redundancy” in the hubris literature may be that the same measures are sometimes used for hubris (Hayward and Hambrick, 1997) and narcissism (Chatterjee and Hambrick, 2007). Testing the characteristics that Owen and Davidson (2009) see as unique to hubris might be a starting point.² Similarly, taking the 15 factors that Rijsenbilt and Commandeur (2013) identify as describing narcissism might also help to separate the two constructs.

To clarify these linkages, a validation study could mirror the procedures applied in Colquitt (2001), Bennett and Robinson (2000), and DeVellis (2011) (i.e., item development, content validity assessment, confirmatory factor analysis, convergent/discriminant validity, criterion related validity, and replication). A set of items generated to measure hubris could then be compared with widely used unobtrusive measures or with the high end of the CSE scale using confirmatory factor analysis, as suggested by Le et al. (2009). These steps would help assess the construct validity of hubris. Additionally, it should become standard practice in hubris research to combine unobtrusive measures, especially those used in strategic management studies (see section on measurement above), with a validated (self-reported) survey measure to strengthen the analysis to balance the strengths and weaknesses of both measurement approaches. Better validation of the hubris construct would improve comparability. However, we suspect that it would still not tap the full potential of hubris research, because most prior studies have focused somewhat narrowly on the

performance of mergers and acquisitions, innovation, and entrepreneurship – a limitation that we address in our subsequent recommendations.

Field-level Issues in Strategic Leadership

Hubris research needs to extend its scope to fully exploit its theoretical and field utility, by shedding light on a variety of topics in the fields of corporate governance and strategic leadership. One criticism of the hubris literature is its frequent focus on CEOs, neglecting the fact that managerial decisions are embedded in a complex network of power relations (Maule and Hodgkinson, 2003). Hubris may also affect a) internal processes that influence organizational outcomes only indirectly; b) the context of decision-making, including whether leadership is centralized or distributed in the organization; c) relationships between managers and boards; and d) relationships between directors and investors or other constituencies.

Internal Processes. As actions of boards set the tone for organizational culture, lower-level managers and employees may be affected. Employees who perceive managers as hubristic could be less willing to accept them as role models. This in turn may negatively affect management's ability to implement corporate strategies and may negatively affect the leader-follower relationship. For example, Wang et al. (2010) provide empirical evidence for increased leader efficacy when follower behavior is positive – which is unlikely to occur if the leader is perceived as a hubristic person. Future research could pay more attention to intermediate variables, such as employees' motivation and group decision-making, and look for signs of behavior that mirror boards and senior managers.

Moreover, managerial hubris may have positive effects on employee motivation. Gervais and Goldstein (2007) show in a formal model that individuals who overestimate their abilities can also overinvest in effort. Therefore, employees may perceive hubristic managers as highly motivated and committed to work, which may positively influence the employees' own motivation.

This raises three important questions: First, how does managerial hubris influence the employees' organizational commitment and motivation to contribute to the success of the firm? Second, what other employee outcomes might be affected by a manager's hubris? Third, under which conditions will such effects be positive or negative for firm performance? Ultimately, hubris research could contribute to an increased understanding of the interaction between cognition and emotion in strategic leadership.

Decision-Making Context. Research on hubris has also identified the decision context as an important variable moderating the impact of hubris on decision-making. For example, studies on the effects of hubris on entrepreneurship and on innovation emphasize the distinct decision context. The decisions of entrepreneurs to start a new venture or managers to innovate are characterized by a high degree of uncertainty, complexity, and long feedback delays (Hayward et al., 2006). Due to bounded rationality, this decision context makes it particularly difficult to evaluate all decision alternatives comprehensively and cautiously (Zahra et al., 2006). Therefore, cognitive biases such as hubris may lead to a "utility of non-rational decision-making" (Busenitz and Barney, 1997: 9). In other words, it may be better to be overly confident of one's abilities and judgments than to procrastinate. Hence, this stream of literature puts a stronger emphasis on the beneficial effects of hubris than the studies on mergers and acquisitions. In contrast, the branch of the literature studying hubris in mergers and acquisitions conceives of a differently characterized decision-making context in which top managers and CEOs operate. According to Malmendier and Tate (2005b) the latter is characterized by low-quality feedback and rare occasions in which the manager receives challenging feedback. Additionally, this research points to recent success as an important driver of hubris (Malmendier and Tate, 2008).

Therefore, the explicit decision context is a variable that needs to be considered when investigating the effects of hubris. Taking this idea further, future research could develop

integrative models of characteristics of the decision context including, e.g., the firm's internal environment, differences in organizational structures, and industry features. Such models could lead to testable hypotheses on the effects of hubris in different decision contexts.

Relationships between Managers and Boards. Hubris has been associated with high pay and pay inequality between the CEO and other employees (Chatterjee and Hambrick, 2007), which can create unrest in the workforce (Bebchuk and Fried, 2004). Additionally, hubris has been related to self-centered CEO depictions in the press and in annual reports (Malmendier and Tate, 2008).

Most research on hubris focuses on individual managers as decision-makers. However, the behavioral theory of the firm and recent approaches to socially distributed decision-making (e.g., Gavetti et al., 2007) emphasize the role of coalitions and group decision-making. The strategic actions of corporations often do not simply reflect the choices made by CEOs or top managers (Powell et al., 2011). Thus, it would be a worthwhile endeavor to analyze how hubris at the individual level affects perceptions of outside directors, board dynamics, and group decision-making, especially in light of concerns about whether boards can be effective monitors of managers (Boivie et al., 2016). Cases of catastrophic failure like those in the financial crisis often arise through the collective agency of boards and top management teams. That is, they arise not just through the excess of messianic leaders, that is, not just on the dark side of heroic leadership. As fraud and corruption can become normalized and then institutionalized (Ashforth and Anand, 2003), we wonder if and then how hubris might spread, and whether by contagion or something more like collusion similar to developments in destructive leadership (Padilla et al. 2007).³

As hubris can lead to value-destroying decisions, it is important to think about countermeasures that limit negative effects. While the literature based in agency theory pays considerable attention to mitigating imperious behavior of CEOs through control mechanisms, it lacks detailed analyses of the links between them and hubris. In analyzing the effects on firm

outcomes, both board independence and director diversity as controls over managerial excess have had equivocal results (see Dalton and Aguinis, 2013: for a discussion). But future research might consider how they alter internal board processes and decisions in ways that help control the “dark side” effects of hubris, as well as shed light on directors’ service role and how it steers executive hubris toward “bright side” outcomes in innovation and entrepreneurship. Research that used similar approaches and instruments in large firms and entrepreneur-led enterprises might help identify the similarities and differences in conditions that lead to hubristic actions.

While such board-internal studies have tended to be qualitative and interpretative, settling on more robust dimensions for the general concept of hubris would give such research stronger analytic power. For example, the psychological literature provides evidence that hubristic individuals seek and act on feedback in a different manner than non-hubristic individuals. Research has shown that decision quality is negatively affected when individuals assume positions of power because their willingness to consider advice declines (See et al., 2011). Similarly, Fast et al. (2012) show, in a series of experiments, that power is likely to induce overconfident decisions. New research within the boardroom could help identify the conditions under which boardroom feedback, coming from a notional peer group, might moderate the effects of hubris. When exploring diversity in top management teams and boards, increasing cognitive diversity is likely to generate different opinions and more discussion about decision alternatives (Rost and Osterloh, 2010). Future research could analyze the extent to which cognitive diversity counteracts hubris in managerial decision-making.

Finally, counterfactual thinking and learning are two phenomena that may counterbalance hubris. According to Simon and Shrader (2012: 303), counterfactual thinking causes decision-makers to think about “how an outcome could turn out differently from what is expected.” Moreover, Aktas et al. (2009) suggest that the signals CEOs receive from investors trigger learning.

As a result, CEOs are likely to bid less aggressively in the future. However, the measures that encourage these phenomena are still unclear. Future research is needed to identify such measures and evaluate their effects.

Relationships between Directors, Investors, and Other Constituencies. Another control on managerial excess well documented in the literature is increasing the power of shareholders, through both voting rights and an expansion of shareholder activism. While activism has been studied as a form of power, much less is understood about its effects on hubris. A recent policy agenda in many countries advocates investor stewardship, which McNulty and Nordberg (2016) identify as having links to psychological ownership and commitment. In adopting such a stance, shareholders take a collaborative approach instead of the more common adversarial one in activism, but for which there is little empirical research. A better understanding of the dimensions of hubris would help such research identify ways to contain the negative effects of hubris in CEOs while encouraging the beneficial ones, or to identify how investors might inadvertently feed the negative side of hubris in pushing for higher growth, leading to counterproductive mergers or acquisitions.

A related stream of research has sought to examine effects of social activism on boards and corporate decision-making (e.g., Rehbein et al., 2013), though without exploring specifically how such interactions influence the moderation of the downsides of hubris. One research stream linked to corporate political activity (Hillman et al., 2004) has considered how senior managers and boards seek to influence the institutional environment, while another has explored a political dimension to corporate social responsibility and the production of social goods through corporate actions (Scherer et al., 2016). Both streams examine phenomena where hubris is likely to appear in either dark or bright side ways.

Conclusions

This article has sought, first, to clarify the often-muddy conceptualizations of hubris in the literature of management and strategic leadership, and then to propose ways of understanding the constructs in use to assess hubris-in-action. As we have shown, hubris presents a managerial dilemma often leading to undesired outcomes. However, tackling the dark side of hubris requires striking a fine balance because, as we have seen, under certain conditions hubris can also deliver value. Further research can build on this to identify the motivations and traits that can detect and classify hubris. Doing so will help guide the work of directors and policymakers, as well as adding to our understanding of strategic leadership. Research that examines the “bright side” of entrepreneurial hubris can remind us that small initial investments can have great returns. In effect, investors can regard such investments as call options, with limited downside and unlimited upside – i.e., benefiting diversified investors and a small number of successful hubristic entrepreneurs, while harming a great number of unsuccessful hubristic entrepreneurs. In this sense, hubris remains a double-edged sword that is difficult to handle, but future research may find ways to inform a better handling of hubris in organizations.

Our analysis leaves many questions open to further research. If the basis of hubris might be something other than a long-established trait, or even a bias contingent upon triggers, we have suggested avenues to approach how hubris develops, perhaps as adaptations across a number of dimensions or the unfolding of a modified life story (McAdams and Pals, 2006).

Doing so will not solve the problems in governance and leadership, of course. Whether strategic decisions have beneficial or disastrous outcomes – or something in between – is likely to be a function of contingencies beyond the concept of hubris itself. But a better understanding of the roles that actors play, and how and why they play them, can contribute to better decisions and better policy.

¹ Owen later came to describe hubris as a trait, rather than a disorder. See the magazine article Owen D. (2016) Hubris Syndrome. *Enterprise Risk*. London: Institute of Risk Management, 20-24.

² The five (of 14) characteristics Owen and Davidson (2009) claim to be unique to hubris are 5) identification with the states or organization; 6) tendency to speak in third person; 10) unshakable belief in ultimate vindication; 12) restlessness, recklessness and impulsiveness; and 13) tendency to allow vision to obviate need to weigh risk. However, their point 12 is actually very much like Antisocial Personality Disorder points 3 and 5, which Owen and Davidson assign to their point 11: Loss of contact with reality. This should be borne in mind when following our suggestion of using O&D's criteria analytically. In a later article, Owen and colleagues claim only four unique characteristics of hubris, not including point 12: see Claxton G, Owen D and Sadler-Smith E. (2015) Hubris in leadership: A peril of unbridled intuition? *Leadership* 11: 57-78.

³ We are indebted to a reviewer for suggesting this insight. The anonymity of the review process makes it impossible to give full recognition of the source of the idea.

Table 1 - The hubris concept, evaluated using Gerring's (1999) dimensions

Dimension	Explanation	Evaluation	Section Heading
Familiarity	How familiar is the concept? (to lay or academic audiences)	High	Familiarity: Understanding Hubris
Differentiation	How differentiated are instances and attributes from other similar concepts? How bounded, how operationalizable is the concept?	Medium; blurs with hyper-CSE, excessive overconfidence, and narcissism	Differentiation, Field Utility, and Resonance: Distinguishing Hubris from Related Constructs
Resonance	Does the chosen term resonate?	High	
Field utility	How useful is the concept within a field of related instances and attributes?	Moderate, owing to lack of differentiation; trait/bias difficult to settle	
Parsimony	How parsimonious is a) the term itself, b) its list of defining attributes?	Low, owing to overlaps with other concepts	Parsimony and Coherence: Measuring Hubris
Coherence	How logically related are instances and attributes?	Low, owing to lack of clarity over trait/bias status	
Theoretical utility	How useful is the concept within a wider field of inferences?	High, if differentiation problems can be overcome	Theoretical Utility and Depth
Depth	How many properties are shared by instances under definition?	High, as it is often used as a measure of a greater or excessive form of another construct	

Note: This table illustrates the strengths of the hubris concept and the challenges that need to be overcome. The last column of the table highlights the section headings where the different dimensions are discussed.

Appendix 1 - Overview of selected, illustrative hubris studies

Study (chronological order)	Main Finding	Hubris Measure	Managerial Relevance
<i>Panel A: Hubris and Acquisitions / Financial Decisions</i>			
Roll (1986)	Hubris as acquisition motive	Acquisition premium	Strategic decision-making
Hayward and Hambrick (1997)	CEOs paying higher premiums for acquisitions	Recent performance (stock returns), self-importance (compensation relative to second best paid employee), media praise (favorable mentions in business press)	Strategic decision-making; board vigilance established as a moderator
Brown and Sarma (2007)	Hubristic CEOs more likely to engage in acquisitions, tending to make value-destroying decisions	Media coverage	Strategic decision-making
Malmendier and Tate (2008)	Hubristic CEOs more likely to engage in acquisitions, making value-destroying decisions	Lengths of option holdings (overconfidence present if options “in-the-money” and not exercised)	Strategic decision-making
Li and Tang (2010)	CEO duality coupled with hubris leads to higher risk taking	z-score for a subjective evaluation of firm performance minus the z for return on sales (ROS)	Strategic risk taking and board composition
Ferris et al. (2013)	Overconfidence is related to (1) number of offers made by a CEO, (2) frequencies of non-diversifying and diversifying acquisitions, (3) use of cash to finance a merger deal	Media coverage	Strategic decisions and investment
Cormier et al. (2016)	Hubris related to financial misreporting	CEO received prizes, awards or accolades; analysts issued buy recommendations; media coverage; firm was part of index covered by two or more financial analysts	Executive team composition
<i>Panel B: Hubris and Entrepreneurial Decisions</i>			
Busenitz and Barney (1997)	Entrepreneurs overestimate probability of being right	Two questions: (1) identify a correct answer to a given question, (2) rate their own confidence in their answer	Investment decisions
Camerer and Lovallo (1999)	Overconfident individuals (entrepreneurs) put disproportionate weight on own judgment versus objective information	Experiment; overconfidence in hypothetical market entry decisions	Investment decisions

Hmieleski and Baron (2009)	High optimism associated with low revenue growth, low employment in new ventures	Hubris as manifestation of extreme dispositional optimism; Life Orientation Test–Revised (LOT-R) (Scheier et al., 1994)	Founding team composition
Simon and Shrader (2012)	Counterfactual thinking facilitates entrepreneurs’ decision to start a business; may lead to insufficient analysis, reducing the chance of success	Overconfidence determined through a series of interviews	Investment decisions

Panel C: Hubris and Innovation

Englmaier (2010)	Overconfidence can represent commitment to stronger pursuit of innovation	Theoretical model, underestimation of probability of bad events	Executive team composition
Galasso and Simcoe (2011)	Overconfident CEOs, managers likely to pursue more innovation in large and small firms	Options “in-the-money” and not exercised	Executive team composition
Hirshleifer et al. (2012)	Effect of overconfidence on managerial innovation stronger in innovative industries	Average “moneyness” of options: stock price divided by the estimated strike price minus 1	Executive team composition
Tang et al. (2015a)	Effect of overconfidence stronger in industries with high concentration	Media coverage	Executive team composition

Appendix 2 – Hubris and psychological disorders

The table below maps the characteristics of hubris in Owen and Davidson (2009) to the American Psychological Association’s diagnostic criteria for Antisocial Personality Disorder (APD); Histrionic Personality Disorder (HPD); and Narcissistic Personality Disorder (NPD).

Table 1 - Hubris and personality disorder compared

	<i>Owen & Davidson (2009), with O&D’s assessment of links to APA criteria</i>	<i>APA (2013) diagnostic criteria for personality disorders</i>
1.	Narcissistic propensity to see world primarily as arena in which to exercise power, seek glory; NPD.6	NPD 6: Is interpersonally exploitative; takes advantage of others to achieve own ends
2.	Predisposition to take actions likely to cast the individual in a good light, enhance image; NPD.1	NPD 1: Has grandiose sense of self-importance; exaggerates achievements; expects to be seen as superior
3.	Disproportionate concern with image NPD.3	NPD 3: Believes self to be special, unique; only to be understood by high-status people
4.	Messianic way of talking; tendency to exaltation; NPD.2	NPD 2: Preoccupied with fantasies of unlimited success, power
5.	Identification with nation or organization; individual’s own outlook and interests identical to nation, organization (unique)	
6.	Tendency to speak in third person or use royal “we” (unique)	
7.	Excessive confidence in own judgement; contempt for advice or criticism NPD.9	NPD 9: Shows arrogant behavior, attitudes
8.	Exaggerated self-belief, bordering on a sense of omnipotence NPD.1 and 2 combined	NPD 1: Has grandiose sense of self-importance; exaggerates achievements; expects to be seen as superior

		NPD 2: Preoccupied with fantasies of unlimited success, power
9.	Belief the only court they answer to is History or God; not accountable to colleagues or public opinion NPD.3	NPD 3: Believes self to be special, unique; only to be understood by high-status people
10.	Unshakable belief that in that court they will be vindicated (unique)	
11.	Loss of contact with reality; often associated with progressive isolation; APD 3 and 5	
12.	Restlessness, recklessness, impulsiveness (unique)	APD 3: Impulsivity or failure to plan ahead APD 5: Reckless disregard for safety of self or others
13.	Tendency to allow a “broad vision” about moral rectitude of proposed course, no need to consider practicality, cost or outcomes (unique)	
14.	Hubristic incompetence, where things go wrong because too much self-confidence has led the leader not to worry about the nuts and bolts of policy; HPD.5	HPD 5: Has a style of speech that is excessively impressionistic and lacking in detail.

NB: The grayed cells reflect characteristics O&D claim as unique, plus one (11) we think O&D mistakenly identify as characteristics of antisocial personality disorder, which are more associated with O&D’s “unique” point 12.

References

- Ackerman RA, Witt EA, Donnellan MB, et al. (2011) What does the narcissistic personality inventory really measure? *Assessment* 18: 67-87.
- Aktas N, Croci E and Simsir SA. (2016) Corporate governance and takeover outcomes. *Corporate Governance: An International Review* 24: 242-252.
- Aktas N, de Bodt E and Roll R. (2009) Learning, hubris and corporate serial acquisitions. *Journal of Corporate Finance* 15: 543-561.
- Alonso P and Lewis GB. (2001) Public service motivation and job performance - Evidence from the federal sector. *American Review of Public Administration* 31: 363-380.
- Amernic J and Craig R. (2013) Leadership Discourse, Culture, and Corporate Ethics: CEO-speak at News Corporation. *Journal of Business Ethics* 118: 379.
- Amernic J and Craig R. (2017) CEO speeches and safety culture: British Petroleum before the Deepwater Horizon disaster. *Critical Perspectives on Accounting* 47: 61-80.
- Ames DR, Rose P and Anderson CP. (2006) The NPI-16 as a short measure of narcissism. *Journal of Research in Personality* 40: 440-450.
- Anderson C, Ames DR and Gosling SD. (2008) Punishing hubris: The perils of overestimating one's status in a group. *Personality and Social Psychology Bulletin* 34: 90-101.
- APA. (2013) *Diagnostic and Statistical Manual of Mental Disorders: DSM-5*, Washington: American Psychological Association.
- Ashforth BE and Anand V. (2003) The normalization of corruption in organizations. *Research in Organizational Behavior* 25: 1-52.
- Baron RA. (2000) Psychological perspectives on entrepreneurship: Cognitive and social factors in entrepreneurs' success. *Current Directions in Psychological Science* 9: 15-18.

- Bebchuk LA and Fried JM. (2004) *Pay without performance: The unfulfilled promise of executive compensation*, Cambridge, MA: Harvard University Press.
- Bennett RJ and Robinson SL. (2000) Development of a measure of workplace deviance. *Journal of Applied Psychology* 85: 349-360.
- Berglas S. (2014) Rooting Out Hubris, Before a Fall. *Harvard Business Review Digital Articles*: 2-4.
- Berkovitch E and Narayanan MP. (1993) Motives for takeovers: An empirical investigation. *Journal of Financial and Quantitative Analysis* 28: 347-362.
- Bernardo AE and Welch I. (2001) On the evolution of overconfidence and entrepreneurs. *Journal of Economics & Management Strategy* 10: 301-330.
- Bethel JE, Hu G and Wang QH. (2009) The market for shareholder voting rights around mergers and acquisitions: Evidence from institutional daily trading and voting. *Journal of Corporate Finance* 15: 129-145.
- Billett MT and Qian Y. (2008) Are overconfident CEOs born or made? Evidence of self-attribution bias from frequent acquirers. *Management Science* 54: 1037-1051.
- Bjørnskov C and Sønderskov KM. (2013) Is social capital a good concept? *Social Indicators Research* 114: 1225-1242.
- Bodolica V and Spraggon M. (2011) Behavioral governance and self-conscious emotions: Unveiling governance implications of authentic and hubristic pride. *Journal of Business Ethics* 100: 535-550.
- Boivie S, Bednar MK, Aguilera RV, et al. (2016) Are Boards Designed to Fail? The Implausibility of Effective Board Monitoring. *Academy of Management Annals* 10: 319-407.
- Bollaert H and Petit V. (2010) Beyond the dark side of executive psychology: Current research and new directions. *European Management Journal* 28: 362-376.

- Brown R and Sarma N. (2007) CEO overconfidence, CEO dominance and corporate acquisitions. *Journal of Economics and Business* 59: 358-379.
- Burgess K. (2007a) Barclays investors back bid for ABN Amro. *FT.com* Retrieved from <http://www.ft.com/cms/s/0/0dc1c2e4-6320-11dc-b3ad-0000779fd2ac>.
- Burgess K. (2007b) Shareholders divided over RBS's big ABN gamble. *FT.com* Retrieved from <http://www.ft.com/cms/s/0/7a5c56b0-72ae-11dc-b7ff-0000779fd2ac>.
- Busenitz LW and Barney JB. (1997) Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making. *Journal of Business Venturing* 12: 9-30.
- Buyl T, Boone C and Wade JB. (2017) CEO narcissism, risk-taking, and resilience: An empirical analysis in U.S. commercial banks. *Journal of Management*: forthcoming.
- Camerer C and Lovallo D. (1999) Overconfidence and excess entry: An experimental approach. *American Economic Review* 89: 306-318.
- Campbell WK, Hoffman BJ, Campbell SM, et al. (2011) Narcissism in organizational contexts. *Human Resource Management Review* 21: 268-284.
- Cassar G and Gibson B. (2007) Forecast rationality in small firms. *Journal of Small Business Management* 45: 283-302.
- Chang CH, Ferris DL, Johnson RE, et al. (2012) Core self-evaluations: A review and evaluation of the literature. *Journal of Management* 38: 81-128.
- Chatterjee A and Hambrick DC. (2007) It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative Science Quarterly* 52: 351-386.
- Claxton G, Owen D and Sadler-Smith E. (2015) Hubris in leadership: A peril of unbridled intuition? *Leadership* 11: 57-78.

- Colquitt JA. (2001) On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology* 86: 386-400.
- Cormier D, Lapointe-Antunes P and Magnan M. (2016) CEO power and CEO hubris: A prelude to financial misreporting? *Management Decision* 54: 522-554.
- Dalton DR and Aguinis H. (2013) Measurement malaise in strategic management studies: The case of corporate governance research. *Organizational Research Methods* 16: 88-99.
- de Haan E. (2015) The leadership shadow: How to recognise and avoid derailment, hubris and overdrive. *Leadership* 12: 504-512.
- DeVellis RF. (2011) *Scale development: Theory and applications*, London, UK: Sage.
- Douglas H, Bore M and Munro D. (2012) Distinguishing the Dark Triad: Evidence from the Five-Factor Model and the Hogan Development Survey. *Psychology* 3: 237-242.
- Englmaier F. (2010) Managerial optimism and investment choice. *Managerial and Decision Economics* 31: 303-310.
- Erez A and Judge TA. (2001) Relationship of core self-evaluations to goal setting, motivation, and performance. *Journal of Applied Psychology* 86: 1270-1279.
- Fast NJ, Sivanathan N, Mayer ND, et al. (2012) Power and overconfident decision-making. *Organizational Behavior and Human Decision Processes* 117: 249-260.
- Ferris SP, Jayaraman N and Sabherwal S. (2013) CEO overconfidence and international merger and acquisition activity. *Journal of Financial and Quantitative Analysis* 48: 137-164.
- Ford R. (2006) Why we fail: How hubris, hamartia, and anagnosis shape organizational behavior. *Human Resource Development Quarterly* 17: 481-489.
- FSA. (2011) *The Failure of the Royal Bank of Scotland plc*. Available at: <http://www.fsa.gov.uk/pubs/other/rbs.pdf>.

- Galasso A and Simcoe TS. (2011) CEO Overconfidence and Innovation. *Management Science* 57: 1469-1484.
- Gavetti G, Levinthal D and Ocasio W. (2007) Neo-Carnegie: The Carnegie school's past, present, and reconstructing for the future. *Organization Science* 18: 523-536.
- Gerring J. (1999) What makes a concept good? A critical framework for understanding concept formation in the social sciences. *Polity* 31: 357-393.
- Gervais S and Goldstein I. (2007) The positive effects of biased self-perceptions in firms. *Review of Finance* 11: 453-496.
- Goldman A. (2009) *Destructive Leaders and Dysfunctional Organizations : A Therapeutic Approach*, Cambridge: Cambridge University Press.
- Grant AM. (2008) Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of Applied Psychology* 93: 48-58.
- Haidt J. (2012) *The righteous mind: Why good people are divided by politics and religion*, New York, NY: Pantheon Books.
- Haynes KT, Hitt MA and Campbell JT. (2015) The dark side of leadership: Towards a mid-range theory of hubris and greed in entrepreneurial contexts. *Journal of Management Studies* 52: 479-505.
- Hayward MLA, Forster WR, Sarasvathy SD, et al. (2010) Beyond hubris: How highly confident entrepreneurs rebound to venture again. *Journal of Business Venturing* 25: 569-578.
- Hayward MLA and Hambrick DC. (1997) Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. *Administrative Science Quarterly* 42: 103-127.
- Hayward MLA, Rindova VP and Pollock TG. (2004) Believing one's own press: The causes and consequences of CEO celebrity. *Strategic Management Journal* 25: 637-653.

- Hayward MLA, Shepherd DA and Griffin D. (2006) A hubris theory of entrepreneurship. *Management Science* 52: 160-172.
- Hill AD, Kern DA and White MA. (2012) Building understanding in strategy research: The importance of employing consistent terminology and convergent measures. *Strategic Organization* 10: 187-200.
- Hiller NJ and Hambrick DC. (2005) Conceptualizing executive hubris: The role of (hyper-)core self-evaluations in strategic decision-making. *Strategic Management Journal* 26: 297-319.
- Hillman AJ and Dalziel T. (2003) Boards of directors and firm performance: Integrating agency and resource dependence perspectives. *Academy of Management Review* 28: 383-396.
- Hillman AJ, Keim GD and Schuler D. (2004) Corporate political activity: A review and research agenda. *Journal of Management* 30: 837-857.
- Hirshleifer D, Low A and Teoh SH. (2012) Are overconfident CEOs better innovators? *Journal of Finance* 67: 1457-1498.
- Hmieleski KM and Baron RA. (2009) Entrepreneurs' optimism and new venture performance: A social cognitive perspective. *Academy of Management Journal* 52: 473-488.
- Hogan Assessments. (2018) *Hogan Development Survey - the Dark Side of Personality*. Available at: <https://www.hoganassessments.com/assessment/hogan-development-survey/>.
- Jonason PK, Slomski S and Partyka J. (2012) The Dark Triad at work: How toxic employees get their way. *Personality and Individual Differences* 52: 449-453.
- Judge TA. (2009) Core self-evaluations and work success. *Current Directions in Psychological Science* 18: 58-62.
- Judge TA, Erez A, Bono JE, et al. (2003) The core self-evaluations scale: Development of a measure. *Personnel Psychology* 56: 303-331.

- Judge TA, Heller D and Klinger R. (2008) The dispositional sources of job satisfaction: A comparative test. *Applied Psychology: An International Review* 57: 361-372.
- Judge TA and Kammeyer-Mueller JD. (2011) Implications of core self-evaluations for a changing organizational context. *Human Resource Management Review* 21: 331-341.
- Judge TA, Locke EA and Durham CC. (1997) The dispositional causes of job satisfaction: A core evaluations approach. *Research in Organizational Behavior* 19: 151-188.
- Judge TA, Piccolo RF and Kosalka T. (2009) The bright and dark sides of leader traits: A review and theoretical extension of the leader trait paradigm. *Leadership Quarterly* 20: 855-875.
- Kahneman D and Tversky A. (1979) Prospect theory: An analysis of decision under risk. *Econometrica* 47: 263-291.
- Kets de Vries MFR. (1990) The organizational fool: Balancing a leader's hubris. *Human Relations* 43: 751-770.
- Kroll MJ, Toombs LA and Wright P. (2000) Napoleon's tragic march home from Moscow: Lessons in hubris. *Academy of Management Executive* 14: 117-128.
- Lawrence DY, Pazzaglia F and Sonpar K. (2011) The Introduction of a Non-Traditional and Aggressive Approach to Banking: The Risks of Hubris. *Journal of Business Ethics* 102: 401-420.
- Le H, Schmidt FL, Harter JK, et al. (2010) The problem of empirical redundancy of constructs in organizational research: An empirical investigation. *Organizational Behavior and Human Decision Processes* 112: 112-125.
- Le H, Schmidt FL and Putka DJ. (2009) The multifaceted nature of measurement artifacts and its implications for estimating construct-level relationships. *Organizational Research Methods* 12: 165-200.

- Lewellyn KB and Muller-Kahle MI. (2012) CEO power and risk taking: Evidence from the subprime lending industry. *Corporate Governance: An International Review* 20: 289-307.
- Li JT and Tang Y. (2010) CEO hubris and firm risk taking in China: The moderating role of managerial discretion. *Academy of Management Journal* 53: 45-68.
- Li JT and Tang Y. (2013) The social influence of executive hubris: Cross-cultural comparison and indigenous factors. *Management International Review* 53: 83-107.
- Lubit R. (2002) The long-term organizational impact of destructively narcissistic managers. *Academy of Management Executive* 16: 127-138.
- Malmendier U and Tate G. (2005a) CEO overconfidence and corporate investment. *Journal of Finance* 60: 2661-2700.
- Malmendier U and Tate G. (2005b) Does overconfidence affect corporate investment? CEO overconfidence measures revisited. *European Financial Management* 11: 649-659.
- Malmendier U and Tate G. (2008) Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of Financial Economics* 89: 20-43.
- Maule AJ and Hodgkinson GP. (2003) Re-appraising managers' perceptual errors: A behavioural decision-making perspective. *British Journal of Management* 14: 33-37.
- McAdams DP and Pals JL. (2006) A new Big Five: Fundamental principles for an integrative science of personality. *American Psychologist* 61: 204-217.
- McNulty T and Nordberg D. (2016) Ownership, activism and engagement: Institutional investors as active owners. *Corporate Governance: An International Review* 24: 346-358.
- Mezias JM and Starbuck WH. (2003) Studying the accuracy of managers' perceptions: A research odyssey. *British Journal of Management* 14: 3-17.

- Mishina Y, Dykes BJ, Block ES, et al. (2010) Why “good” firms do bad things: The effects of high aspirations, high expectations, and prominence on the incidence of corporate illegality. *Academy of Management Journal* 53: 701-722.
- Nogata D, Uchida K and Goto N. (2011) Is corporate governance important for regulated firms' shareholders? Evidence from Japanese mergers and acquisitions. *Journal of Economics and Business* 63: 46-68.
- Owen D. (2016) Hubris Syndrome. *Enterprise Risk*. London: Institute of Risk Management, 20-24.
- Owen D and Davidson J. (2009) Hubris syndrome: An acquired personality disorder A study of US Presidents and UK Prime Ministers over the last 100 years. *Brain* 132: 1396-1406.
- Padilla A, Hogan R and Kaiser RB. (2007) The toxic triangle: Destructive leaders, susceptible followers, and conducive environments. *The Leadership Quarterly* 18: 176-194.
- Peterson SJ, Galvin BM and Lange D. (2012) CEO servant leadership: Exploring executive characteristics and firm performance. *Personnel Psychology* 65: 565-596.
- Petit V and Bollaert H. (2012) Flying too close to the sun? Hubris among CEOs and how to prevent it. *Journal of Business Ethics* 108: 265-283.
- Picone PM, Dagnino GB and Mina A. (2014) The origin of failure: A multidisciplinary appraisal of the hubris hypothesis and proposed research agenda. *Academy of Management Perspectives* 28: 447-468.
- Pincus AL and Lukowitsky MR. (2010) Pathological Narcissism and Narcissistic Personality Disorder. *Annual Review of Clinical Psychology* 6: 421-446.
- Pirson M and Turnbull S. (2011) Corporate governance, risk management, and the financial crisis: An information processing view. *Corporate Governance: An International Review* 19: 459-470.

- Podsakoff PM, MacKenzie SB and Podsakoff NP. (2016) Recommendations for creating better concept definitions in the organizational, behavioral, and social sciences. *Organizational Research Methods* 19: 159-203.
- Powell TC, Lovallo D and Fox CR. (2011) Behavioral strategy. *Strategic Management Journal* 32: 1369-1386.
- Raj M and Forsyth M. (2003) Hubris amongst UK bidders and losses to shareholders. *International Journal of Business* 8: 1-16.
- Rehbein K, Logsdon JM and Van Buren HJ. (2013) Corporate responses to shareholder activists: Considering the dialogue alternative. *Journal of Business Ethics* 112: 137-154.
- Resick CJ, Whitman DS, Weingarden SA, et al. (2009) The bright-side and the dark-side of CEO personality: Examining core self-evaluations, narcissism, transformational leadership, and strategic influence. *Journal of Applied Psychology* 94: 1365-1381.
- Rijsenbilt A and Commandeur H. (2013) Narcissus Enters the Courtroom: CEO Narcissism and Fraud. *Journal of Business Ethics* 117: 413-429.
- Roll R. (1986) The hubris hypothesis of corporate takeovers. *Journal of Business* 59: 197-216.
- Rost K and Osterloh M. (2010) Opening the black box of upper echelons: Expertise and gender as drivers of poor information processing during the financial crisis. *Corporate Governance: An International Review* 18: 212-233.
- Rus D, van Knippenberg D and Wisse B. (2012) Leader power and self-serving behavior: The moderating role of accountability. *Leadership Quarterly* 23: 13-26.
- Russo EJ and Schoemaker PJH. (1990) *Decision Traps*, New York, NY: Simon and Schuster.
- Sadler-Smith E, Akstinaite V, Robinson G, et al. (2017) Hubristic leadership: A review. *Leadership* 13: 525-548.

- Scheier MF, Carver CS and Bridges MW. (1994) Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the life orientation test. *Journal of Personality and Social Psychology* 67: 1063-1078.
- Scherer AG, Rasche A, Palazzo G, et al. (2016) Managing for political corporate social responsibility: New challenges and directions for PCSR 2.0. *Journal of Management Studies* 53: 273-298.
- See KE, Morrison EW, Rothman NB, et al. (2011) The detrimental effects of power on confidence, advice taking, and accuracy. *Organizational Behavior and Human Decision Processes* 116: 272-285.
- Seth A, Song KP and Pettit RR. (2000) Synergy, managerialism or hubris? An empirical examination of motives for foreign acquisitions of US firms. *Journal of International Business Studies* 31: 387-405.
- Seth A, Song KP and Pettit RR. (2002) Value creation and destruction in cross-border acquisitions: An empirical analysis of foreign acquisitions of US firms. *Strategic Management Journal* 23: 921-940.
- Shefrin H. (2002) *Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing*, New York, NY: Oxford University Press.
- Shipman AS and Mumford MD. (2011) When confidence is detrimental: Influence of overconfidence on leadership effectiveness. *Leadership Quarterly* 22: 649-665.
- Shu P-G, Yeh Y-H, Chiang T-L, et al. (2013) Managerial Overconfidence and Share Repurchases. *International Review of Finance* 13: 39-65.
- Simon M and Shrader RC. (2012) Entrepreneurial actions and optimistic overconfidence: The role of motivated reasoning in new product introductions. *Journal of Business Venturing* 27: 291-309.

- Stanovich KE and West RF. (2000) Individual differences in reasoning: Implications for the rationality debate? *Behavioral and Brain Sciences* 23: 645-665.
- Stumpp T, Muck PM, Hulsheger UR, et al. (2010) Core self-evaluations in Germany: Validation of a German measure and its relationships with career success. *Applied Psychology: An International Review* 59: 674-700.
- Suddaby R. (2010) Editor's comments: Construct clarity in theories of management and organization. *Academy of Management Review* 35: 346-357.
- Tang Y, Li JT and Yang HY. (2015a) What I see, what I do: How executive hubris affects firm innovation. *Journal of Management* 41: 1698-1723.
- Tang Y, Qian CL, Chen GL, et al. (2015b) How CEO hubris affects corporate social (ir)responsibility. *Strategic Management Journal* 36: 1338-1357.
- Thoroughgood CN, Sawyer KB, Padilla A, et al. (2018) Destructive Leadership: A Critique of Leader-Centric Perspectives and Toward a More Holistic Definition. *Journal of Business Ethics* 151: 627-649.
- Tracy JL and Robins RW. (2007) The psychological structure of pride: A tale of two facets. *Journal of Personality and Social Psychology* 92: 506-525.
- Trevelyan R. (2008) Optimism, overconfidence and entrepreneurial activity. *Management Decision* 46: 986-1001.
- Trumbull D. (2010) Hubris: a primal danger. *Psychiatry: Interpersonal & Biological Processes* 73: 341-351.
- Vecchio RP. (2003) Entrepreneurship and leadership: Common trends and common threads. *Human Resource Management Review* 13: 303-327.
- Wang L, Hinrichs KT, Prieto L, et al. (2010) The effect of followers' behavior on leader efficacy. *Journal of Business and Management* 16: 139-151.

- Wickham PA. (2006) Overconfidence in new start-up success probability judgment. *International Journal of Entrepreneurial Behaviour and Research* 12: 210-227.
- Wright BE, Christensen RK and Pandey SK. (2013) Measuring public service motivation: Exploring the equivalence of existing global measures. *International Public Management Journal* 16: 197-223.
- Zahra SA, Sapienza HJ and Davidsson P. (2006) Entrepreneurship and dynamic capabilities: A review, model and research agenda. *Journal of Management Studies* 43: 917-955.
- Zhang T, Sabherwal S, Jayaraman N, et al. (2016) The Young and the Restless: A Study of Age and Acquisition Propensity of CEOs of UK Firms. *Journal of Business Finance & Accounting* 43: 1385-1419.
- Zhu DH. (2013) Group polarization on corporate boards: Theory and evidence on board decisions about acquisition premiums. *Strategic Management Journal* 34: 800-822.
- Zhu DH and Chen GL. (2015) Narcissism, director selection, and risk-taking spending. *Strategic Management Journal* 36: 2075-2098.