

Hubristic Start-up Founders – The Neglected Bright and Inevitable Dark Manifestations of Hubristic Leadership in New Venture Creation Processes

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ABSTRACT The hubris tradition of research has been criticized for limiting its scope by associating hubris predominantly with detrimental leadership behaviours. To counteract this bias, we provide a more nuanced exploration of hubris and consider both beneficial and detrimental manifestations of hubris in start-up founders' leadership behaviours. Our analysis, based on qualitative data from expert interviews and two case studies, indicates that, whilst hubristic start-up founders are likely to fail overall, they also excel in creating and communicating visionary scenarios, steering employees through critical situations, and extracting commitment from third parties. These under-researched 'bright' manifestations of hubris allow start-up founders to lead their venture towards a stage, in which their visionary power and resilience become crucial pre-requisites for economic progress. Our findings extend knowledge on hubristic leadership, offer new directions for the hubris tradition of research, and open up avenues for future research with a more balanced view of hubris.

Keywords: entrepreneurial personality, hubris, leadership behaviours, start-up founders

INTRODUCTION

'I thought, nobody is going to be crazy enough to do space, so I'd better do space'. (Elon Musk^[1])

'We're here to put a dent in the universe. Otherwise why else even be here?'. (Steve Jobs^[2])

'When I'm told absolutely no, it's a definite maybe'. (Dean Kamen^[3])

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Processes of ‘creative destruction’ in the Schumpeterian sense have often been initiated by start-up founders who set out to actively shape the future rather than merely anticipate changes (Hayward et al., 2010; Maccoby, 2000; Ranft and O’Neill, 2001). These godlike ambitions are interpreted in reference to Greek mythology as driven by hubris, a rather abnormal psychological disposition particularly pronounced in leaders (Claxton et al., 2015; Trumbull, 2010). Hubristic leaders are biased by a grandiose belief in their talents and abilities, which they express through high levels of self-confidence, exaggerated pride, overinflated positive self-evaluations, and arrogance (Judge et al., 2009; Owen and Davidson, 2009; Petit and Bollaert, 2012). The ‘hubris theory of entrepreneurship’ suggests that hubris is particularly prevalent in start-up contexts, as it supports founders to enact their seemingly far-fetched plans despite facing high levels of failure rates, time constraints and uncertainty (Hayward et al., 2006). These ‘bright’ effects of hubris on leadership emergence are, however, rarely reflected in research on leadership effectiveness, which is primarily focused on the determination of hubris’ ‘dark’ manifestations in leadership behaviours: excessive risk-taking (Hodgkinson and Partington, 2008; Li and Tang, 2010); flawed, subjective assessments of decisions (McManus, 2016; Mishina et al., 2010); and strategic persistency (Chowdhury, 2014; Hiller and Hambrick, 2005). The only exception is a more recent study by Tang et al. (2015a) who found that hubristic leaders are drivers of firm innovation.

Research in this area has been recently criticized for its limited scope, particularly with regard to the inherent association of hubris with detrimental leadership behaviours (Bollaert and Petit, 2010; Judge et al., 2009; Tang et al., 2015b). This research bias has resulted in the literature to date lacking holistic and impartial investigations of how hubris is manifested across core leadership behaviours (Judge et al., 2009; Picone et al., 2014). This is surprising as similar shortcomings have long been addressed in literature on narcissistic leadership (Chatterjee and Hambrick, 2007; Maccoby, 2000; Rosenthal and Pittinsky, 2006), and the examples of the three successful start-up founders referred to above should invite closer investigations into a more rounded approach to researching hubris in start-up leaders. Whilst the ventures of all three of these founders have at times teetered on the verge of failure due to spectacular misjudgements of markets and stubborn resistance to criticism on their part, they have also had the courage to realize their visions for highly innovative and disruptive business ideas, which more conservative founders would rather not have pursued (Hayward, 2007; Picone et al., 2014). Crucially, their success rested on their ability to persuade investors and employees to provide resources, without which the exploitation of their far-fetched ideas would not have been possible (Hayward et al., 2010; Ranft and O’Neill, 2001).

These observations could entail two interesting, yet hypothetical, implications for the hubris tradition of research. First, it seems feasible that hubristic founders succeed in certain leadership matters, particularly those involving the conception of visionary, potentially disruptive scenarios and their enactment through the extraction of commitment from third parties, while failing in others (Bollaert and Petit, 2010; Hayward, 2007; Judge et al., 2009). Second, whilst the three cases do not disprove the higher failure rate of hubristic founders, they do indicate that ‘such failure is not necessarily bad for ventures and entrepreneurial activity’ (Hayward et al., 2006, p. 170). On the contrary, hubristic founders seem to be able to lead their ventures towards a stage, in which their visionary power

and persistence are crucial prerequisites for economic progress (Alvarez and Busenitz, 2001; Bollaert and Petit, 2010; Judge et al., 2009; Sarasvathy, 2000). Inspired by these observations, we aim to examine the effectiveness of hubristic leadership more comprehensively, considering both beneficial and detrimental manifestations. Owing to the early state of research in this regard, we adopt an explorative research design in which the effects of hubristic leadership are examined through an analysis of experts' narratives, and two case studies of hubristic leaders in a start-up context.

Against this background, we contribute to literature on entrepreneurial leadership in general, and to studies on the effectiveness of hubristic leadership in particular: we are among the first to provide empirical evidence for the ambivalent manifestations of hubris in the leadership behaviours of start-up founders, especially in the early stage of venture creation. This aspect of our findings allows to broaden the scope of the 'hubris theory of entrepreneurship' by showing that the 'bright' effects of hubris go beyond leadership emergence and are also crucial to leadership effectiveness. Indeed, our evidence suggests that hubristic entrepreneurs perform well not only in the initial venture creation process, but their leadership approach is also critical to subsequent roles such as initiating and communicating visionary scenarios, steering employees through critical situations, and securing commitment from third parties. With these contributions, our study provides the basis for generating practical implications, which can help investors, employees and other stakeholders mitigate detrimental outcomes of hubristic leadership while encouraging beneficial ones.

Our paper is structured as follows. First, we review literature on hubristic leadership, introduce the conceptual background, and develop our theoretical framework. In the third section, we present our methodological approaches which informed our research and analysis. The fourth section presents our findings. In our concluding section, we draw out the theoretical and practical implications of our study, consider the limitations of our research, and highlight avenues for future research.

CONCEPTUAL BACKGROUND AND THEORETICAL FRAMEWORK

Hubristic Leaders' Psychological Disposition

Research projects on hubristic leadership have long been confronted with conceptual inconsistencies resulting from the different interpretations of hubristic acts identified in Greek mythology (Bollaert and Petit, 2010; Chowdhury, 2014). These conceptual challenges have impeded the comparability of research findings and hindered the unambiguous differentiation of hubris from related but overall independent psychological dispositions, such as overconfidence and narcissism (Petit and Bollaert, 2012; Picone et al., 2014). Bollaert and Petit (2010) have recently addressed these issues by tracing the origins of hubris within the tradition of abnormal psychology that focuses on 'unusual' psychological patterns (Alloy et al., 2005). According to the understanding in this discipline, hubris is a temporary psychological disposition that is triggered by individual power and characterized by various cognitive and personality dimensions (Claxton et al., 2015). Cognitive processes of hubristic leaders are biased by their sense of grandiosity,

and an exaggerated belief in their own talents and abilities (Judge et al., 2009; Owen and Davidson, 2009). Their overinflated self-perception impacts on their decision-making that deviates from conventional rationale and normative standards (Hayward et al., 2006; Hiller and Hambrick, 2005). To that end, hubristic leaders tend to rely on their ‘unbridled intuition’ (Claxton et al., 2015, p. 68), instead of processing and analysing rational arguments, and remain unchallenged in so doing.^[4] In addition to these less obvious cognitive processes, hubristic leaders display various characteristic personality traits, such as high levels of self-confidence, exaggerated pride, overinflated positive self-evaluations, and arrogance (Hayward and Hambrick, 1997; Judge et al., 2009; Petit and Bollaert, 2012).

In contrast to the enduring and inflexible characteristics of narcissism, hubris is seen as a temporary condition that affects individuals only while they are in a position of power (Russell, 2011; Tang et al., 2018; Trumbull, 2010). In particular, hubristic leaders do not display the characteristics typical of narcissistic personalities, such as a preoccupation with the self, a sense of entitlement, and a continuous, excessive pursuit of admiration (Chatterjee and Hambrick, 2007).

One of the difficulties in operationalizing the complex manifestations of hubris is that it is often equated with the more established and readily operationalized concept of overconfidence. While both concepts share certain characteristics, hubris is a rather extreme and even ‘abnormal’ form of more common overconfidence that is widely pronounced among individuals regardless of their status of power (Hiller and Hambrick, 2005; Owen, 2006).

Hubris in Leadership Contexts

The research interest in examining hubris from a leadership perspective was triggered by Roll (1986), who was one of the first to open the ‘black box’ of executive psychology for leadership research (Hayward, 2007). Roll argues that hubristic decision-makers in M&A processes tend to pay excessive premiums that yield zero returns as they overestimate their ability to generate value from the acquisition. Numerous empirical studies provide confirmatory evidence for his ‘hubris hypothesis of corporate takeovers’ (see, for example, Dubofsky and Fraser, 1989; Hodgkinson and Partington, 2008; Ismail, 2005). These advances have encouraged scholars from other disciplines to examine the relevance of hubris for distinct leadership matters. Studies focusing on as diverse cases as the presidency of influential politicians (Owen, 2006), Napoleon’s March from Moscow (Kroll et al., 2000), or the project management of Heathrow’s Terminal 5 (Brady and Davies, 2010) provide evidence that hubris leads executives to neglect important issues, be it environmental circumstances or operational concerns. In addition, they are found to promote risk-taking in firms (Li and Tang, 2010), corporate illegality (Mishina et al., 2010), the misuse of human, social and financial capital (Haynes et al., 2015; McManus, 2016), corporate social irresponsibility (Tang et al., 2015b), and financial misreporting (Cormier et al., 2016). The only bright manifestation of hubris has been considered more recently by Tang et al. (2015a) who found that hubris also has positive impacts on firm innovation.

Recent reviews of existing evidence reveal considerable weaknesses in the hubris tradition of research that impede further theoretical advances. For instance, Picone et al. (2014) criticize the existing literature as tending to ‘look at some trees and miss the whole forest’ (p. 448). The authors refer to the lack of a comprehensive framework that allows to holistically capture the effects of hubris on leadership matters more broadly. Also Bollaert and Petit (2010) emphasize the necessity of such a framework as it would support scientists to look beyond the ‘dark’ side of hubris instead of being ‘caught in a negative–negative paradigm in which they seek to identify pathological psychological characteristics in top executives and link them to poor performance effects or other disastrous consequences’ (p. 363). In fact, existing research fails to acknowledge that particular personality traits of any psychological disposition are likely to have both upsides and downsides (Furnham et al., 2012; Judge et al., 2009; Resick et al., 2009). Put differently, they ‘can be considered as trade-offs, with a particular trait producing not unalloyed advantage but a mixture of costs and benefits’ (Nettle, 2006, p. 625). Following this, Judge et al (2009) argue that, as part of the ‘dark’ manifestations of hubris, hubristic leaders might neglect strategic concerns, whereas their tendency to project power, strength, and authority in difficult situations suggests the possible ‘bright’ effects of hubris.

All of these insights have been generated with a focus on hubristic executives in established organizations while empirical findings with regard to the manifestations of hubris in start-up founders’ leadership behaviours is still scarce (Bollaert and Petit, 2010; Picone et al., 2014). We address this gap by developing and drawing upon a theoretical framework that allows us to comprehensively explore manifestations of hubris across core leadership behaviours that are performed by start-up founders.

Start-up Founders as Leaders

Baron and Shane (2007) define entrepreneurship as ‘a field of business [that] seeks to understand how opportunities to create something new arise and are discovered or created by specific persons, who then use various means to exploit or develop them, thus, producing a wide range of effects’ (p. 5). This definition attributes a leadership role to start-up founders that goes beyond the management of a company as it involves the exploration and exploitation of business opportunities (Cogliser and Brigham, 2004; Finkelstein and Hambrick, 1996). Schumpeter (1934) characterizes entrepreneurship as a special case of leadership that encompasses the creation of a new venture. Building on that, numerous studies have aimed to explore the leadership behaviours of new venture founders in a more differentiated and balanced way (Ensley et al., 2006; Gupta et al., 2004; Shane and Venkataraman, 2000). To the best of our knowledge, however, literature still lacks a comprehensive framework of core leadership behaviours that are crucial to the realization of venture creation processes.

A typology of relevant leadership behaviours for start-up founders needs to reflect the specificity of start-up contexts, in that the lack of well-defined governance structures and work processes entail only low impediments to leadership and the exercise of power (Ensley et al., 2006; Hmieleski and Ensley, 2007; Kerr and Jermier, 1978; Sathe, 2007). At the same time, start-up founders cannot rely on historical trends or previous performance levels as a basis for their decision-making processes (Miller, 1983). Hence, they

are confronted with and need to handle considerably higher levels of uncertainty and complexity compared to executives in established organizations (Busenitz and Barney, 1997; Ensley et al., 2006; Shane and Venkataraman, 2000). These conditions favour the occurrence of decision biases, such as hubris, as reflected in decision-making processes that deviate from conventionally perceived rational and normative standards (Hiller and Hambrick, 2005; Sarasvathy, 2000). Their hubris emerges once founders have taken the decision to invest their time and other resources in the exploration and exploitation of innovation potentials, and supports them in carrying out their plans despite the high levels of uncertainty and complexity that start-up founders typically face (Hayward et al., 2006).

During the analysis of our data, it became evident that for a comprehensive examination of the manifestations of hubris in the start-up founders' leadership behaviours, we needed a theoretical framework that holistically reflects the specificities of the start-up context and the leadership behaviours necessary to cope with its conditions. To develop such a framework, we drew upon classical economic and entrepreneurship theories as they inform this paper's underlying understanding of what constitutes entrepreneurship (Baron and Shane, 2007; Shane and Venkataraman, 2000). In particular, the classical literature contains important contributions which describe core functions that entrepreneurs need to perform to lead their ventures through the exploration and exploitation of innovation potentials (see, for example, Casson, 1982; Kirzner, 1973; Knight, 1921; Schumpeter, 1934). Building on the seminal risk-taking function of Cantillon (1755), several studies have been undertaken to generate a more diversified understanding of functions that start-up founders need to perform (see Hébert and Link, 1988). Barreto (1989) reviews these efforts to synthesize the scientific debate, and Freiling (2008) added a systematization of the functions by pointing to their explorative or exploitative load. This endeavour resulted in the presentation of four former stand-alone functions under the umbrella of research on entrepreneurial functions, namely (1) innovation (Schumpeter, 1934), (2) risk management (Knight, 1921), (3) (internal) coordination (Cole, 1949; Gartner, 1988) and (4) arbitrage (Kirzner, 1973; Mises, 1949). The innovation and risk-taking functions are explorative in nature. Specifically, entrepreneurs identify innovation potentials through the (re)combination of products, processes, organizational structures, and business models, among others. These processes require them to develop a vision that clarifies business objectives for an uncertain future and serves as an inspiration to team members, (potential) employees, investors and other parties who could support the venture creation process (Bryant, 2004; Coglisier and Brigham, 2004). Hence, leadership in this regard involves the creation of 'visionary scenarios that are used to assemble and mobilize a "supporting cast" of participants who become committed by the vision to the discovery and exploitation of strategic value creation' (Gupta et al., 2004, p. 242). This exploration of innovation potentials requires entrepreneurs to absorb uncertainties through the performance of the risk management function. This function involves the identification, evaluation, and handling of risks (Knight, 1921). Leadership behaviours in this regard entail shouldering the burden of responsibilities that sustains the actions of these entrepreneurs' followers (Gupta et al., 2004).

The other two functions of our framework – internal coordination, and arbitrage – cover the exploitative part of what constitutes entrepreneurship (Baron and Shane, 2007;

Shane and Venkataraman, 2000). Internal coordination requires entrepreneurs to initiate, maintain and aggrandize a profit-oriented business, and involves the coordination of resources (Gartner, 1988). Leadership behaviours in this regard entail the coordination of value-added activities and the initiation of sense-making initiatives that serve as a guide to employees and foster their motivation (Cogliser and Brigham, 2004). The external counterpart to internal coordination is the arbitrage function which sits at the market interface (Kirzner, 1973; Mises, 1949) and involves the discovery and exploitation of profit opportunities. This function requires an entrepreneur's alertness and accumulation of knowledge of supply sources, market conditions, and customer segments (Daily and Dalton, 1993). In terms of leadership behaviours, entrepreneurs are required to cope with market uncertainties and environmental changes in order to guide collective commercialization efforts that are aligned to the overall vision of the founders. In order to succeed in these matters, leaders have to secure commitment from external stakeholders (Gupta et al., 2004), such as investors, network partners, and suppliers. All four of the previously described entrepreneurial functions and related relevant leadership behaviours are summarized in Figure 1.

After the first rounds of data analysis, we started to draw upon this comprehensive framework to overcome the limited scope of the hubris tradition of research (Bollaert and Petit, 2010; Picone et al., 2014) and organize our empirical data to generate answers to the following research question: *How is hubris manifested across core leadership behaviours performed by start-up founders during the exploration and exploitation of novel business opportunities?*

METHODOLOGY

Methodological Considerations

Scholars who have recently assessed the state of theory development within the hubris tradition of research emphasize the necessity to generate more in-depth insights on the complex manifestations of hubris in leadership matters through constructivist research approaches (Brennan and Conroy, 2013; Hill et al., 2014). With regard to the nascent state of scientific knowledge on how hubris affects leadership behaviours in start-up contexts, scholars especially highlight the value of letting new relationships emerge instead of defining them prior to the data collection (Haynes et al., 2015). Such an approach, however, carries the difficulty of overcoming the limited accessibility of research subjects as individuals are generally less likely to participate in research projects, which explore their psychological disposition (Chatterjee and Hambrick, 2007; Cycyota and Harrison, 2006; Hambrick and Mason, 1984). Another challenge involved in determining hubris when relying on direct interaction with start-up founders instead of numerical proxies is that it requires sufficient experience to distinguish hubristic from non-hubristic entrepreneurs. In order to overcome these challenges, Bollaert and Petit (2010) argue that 'direct measures do not necessarily have to be collected from executives themselves. Using direct measures provided by the executive's entourage could also be a way to get round the difficulty of accessing the top executive directly' (p. 373). Following this suggestion, we tested and developed different research designs. Our primary study indicated that investors,

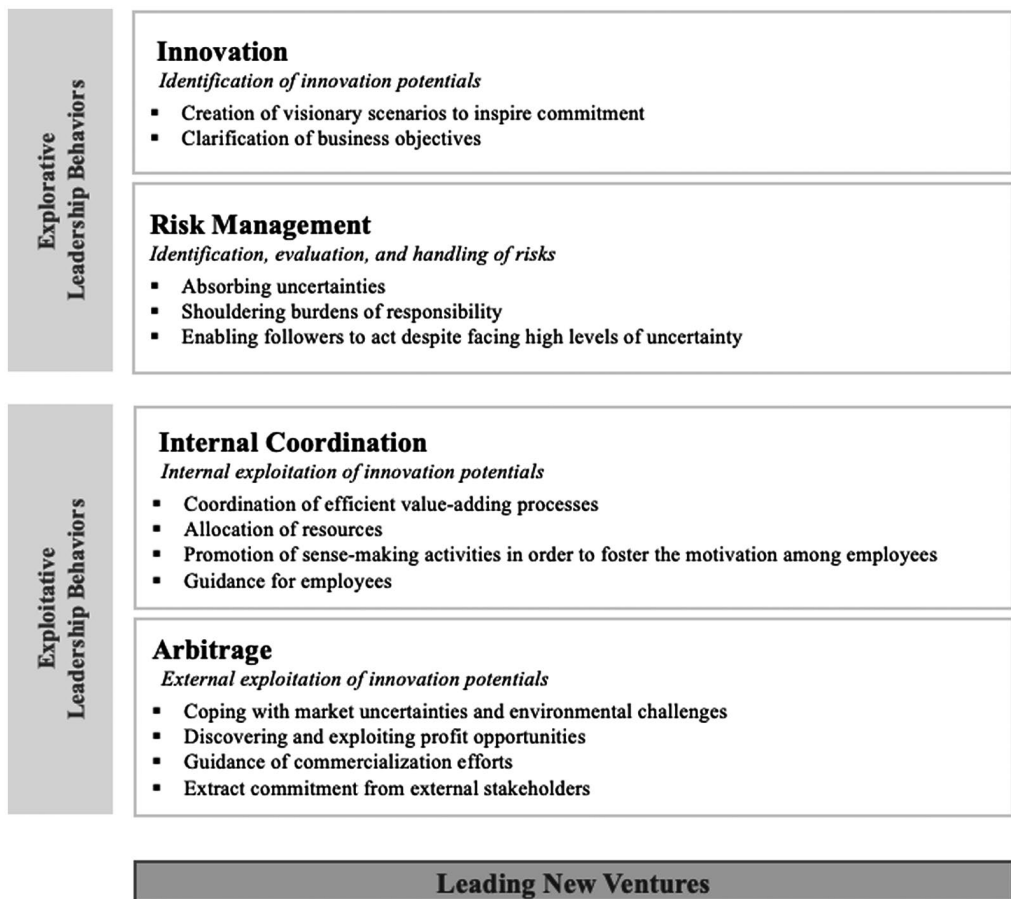


Figure 1. Theoretical framework

start-up consultants and coaches are able to reliably identify patterns of hubris as they are experts in accompanying diverse founders over a longer period of time. We therefore decided to draw upon their narratives to gain a micro-level understanding of *how* hubris is manifested in start-up founders' leadership behaviours (Boje, 2001; Fletcher, 2007; Giddens, 1994; Ogbor, 2000). In addition, we aimed to enrich our data by also understanding the hubristic entrepreneurs' situations, values, meanings, motivations, and logics that governed *why* they performed leadership behaviours in certain ways (Curran and Blackburn, 2000; Fletcher, 2007). This close-up approach allows us to fully understand the effects of hubris on leadership effectiveness in a real-world context (Gummeson, 2000; Yin, 2011).

Data Collection

Experts' narratives. Narrative accounts of inquiry allow to capture human experiences of events, activities, and practices (O'Connor, 2002; Weick, 1995) and represent a 'fundamental way in which people compose meaning, inter-relate and connect to each

other' (Fletcher, 2007, p. 653). In our study, we draw upon the narratives of experts who were selected based on theoretical sampling (Strauss, 1987). The following criteria were applied to identify experts with sufficient expertise in dealing with new venture founders: they had to (1) have at least two years' experience of working in direct interaction with start-up founders, e.g., in an investing, consulting, or coaching role; (2) have worked with at least 30 start-up founders; and (3) operate within the start-up ecosystem in Berlin in order to ensure the comparability of the overall conditions for experts and founders.

Based on the information they provided on LinkedIn, Crunchbase and personal websites, we identified 150 experts who met these criteria (46 investors, 73 start-up consultants, and 31 coaches), and invited them to participate in a scientific study on entrepreneurial self-confidence. The experts had on average 9.3 years' experience and had worked with 83 start-up founders. Initially, ten agreed to participate in our study (between them, on average 8.9 years' experience with 76 start-ups). Interviews were conducted with all ten. Through the interviews, we were able to identify additional interlocutors from the networks of these experts. An additional 34 individuals were recommended on this basis, of which 27 fulfilled all our criteria and were invited to participate. On this basis, we conducted a further 19 interviews until theoretical saturation was achieved (Glaser, 1978; Strauss and Corbin, 1990).

The interviews were conducted in German, the majority in person ($n = 23$) and a few via telephone ($n = 6$), between June 2015 and August 2017. In preparation for the interview, the experts were asked to reflect upon their experiences with start-up founders who displayed the following characteristics: (1) exaggerated pride or self-confidence, (2) overinflated positive self-evaluation, and (3) arrogance. The interviews were unstructured and the term 'hubris' itself was not used in order to avoid undesirable biases. The interviews started by asking the experts to describe in detail the specific venture creation processes they had accompanied and that had been performed by founders who displayed the given characteristics (Gergen and Gergen, 1992; Watson, 2002). This unstructured approach gave respondents ample time to explain the importance of their observations and to elaborate on what they thought of as particularly important (Corbin and Morse, 2003). The interviews took on average 1 hour and 23 minutes and were audio-recorded and transcribed verbatim.

We integrated two validity checks in our study in order to determine whether the experts had indeed observed hubris. First, we asked the experts to describe concrete occasions in which they had observed manifestations of exaggerated pride or self-confidence, overinflated positive self-evaluation, and arrogance in the start-up founders' behaviours. Second, their descriptions were then assessed independently by two trained psychologists who both actively support university spin-offs in Berlin's start-up ecosystem. Based on the interview transcripts, they rated the indications of hubris in the experts' descriptions as either 'strong', 'rather strong', 'rather weak' or 'weak'. As a result of their assessment, we excluded from the analysis two narratives in which the evidence of hubris was considered 'weak' by both psychologists. Three further narratives, which were classified as 'rather weak' by one of the psychologists, were discussed in more detail and finally included in the study. To triangulate this data, we additionally asked the experts to assess the perceived self-evaluations of the founders they had described. For this purpose, we adapted the CSE-scale proposed by Hiller and Hambrick (2005) as a means to determine

hubris, and rephrased their 12 items to allow for peer-assessments of the founders (e.g., 'the founder is confident to get the success he deserves in life' or 'overall the founder is satisfied with himself'). The experts were asked to score their assessments on a 7-point-Likert scale (1 = totally disagree, 7 = totally agree). All founders were consistently rated with very high values ($M = 80.5$), which is above the suggested threshold value of 76 as an indicator for hubris (Hiller and Hambrick, 2005). The final data set contained the narratives of ten investors, 11 start-up consultants, and six start-up coaches, with an average of almost 10 (9.43) years' experience of working with start-up founders. About 25 of the interviewed experts were men and two women. The narratives contain only one reference to a hubristic female entrepreneur, while all other founders described were male.

Case studies. In order to obtain a multiple perspective on how and especially *why* hubristic entrepreneurial leaders behave in certain ways, we complemented the experts' narratives with in-depth case studies of hubristic entrepreneurs. For this purpose, we identified three entrepreneurs who showed particularly striking manifestations of hubris in the experts' narratives and scored the highest values in the experts' peer-assessments. We asked all three experts to establish contact with the founders they had described. One of the consultants expressed concerns about jeopardizing his personal relationship with the founder. The other two experts, both investors, agreed and asked the two founders to participate in our study on 'the importance of self-confidence for venture creation processes'. The agreement of two of these founders enabled us to take a closer look at these, rather extreme, cases. We again relied on the narratives of the two founders, who described their venture creation processes in detail. These unstructured interviews took on average 1 hour and 35 minutes and were complemented with two interviews of their former employees, with an average of 50 minutes. In addition, the founders provided us with secondary data, such as internal documents, business plans, company presentations, and pitch videos. Table I presents all the primary and secondary data collected between June 2015 and January 2018.

Analytical Approach

In terms of data analysis, we followed the Gioia methodology which offers a rigorous inductive approach to examining qualitative data (Gioia et al., 2013). All data were transcribed and coded by using Atlas.ti software. We started by coding the first-order data that captures relevant words, phrases and descriptions. These 'in-vivo' concepts were close to the terms and language used by the experts, founders and their employees (Corbin and Strauss, 2014; van Maanen, 1979). The concepts were then grouped and merged into first-order categories to build the basis for a comparison of the data in order to identify second-order themes (Gioia et al., 2013). These are theoretically informed, and involved an iterative processes of going back and forth between the data and the related literature (Corley and Gioia, 2004; Glaser et al., 1968). In a final step, we linked these second-order themes to overarching aggregate dimensions. The data were coded separately by each member of the research team in order to ensure intercoder reliability. The outcomes of the initial and final coding process were discussed with a group of eight scientists in two workshops, lasting three hours each. When we first started coding the data, we did

Table I. Overview of primary and secondary data

Experts' narratives			
Experts	Transcripts	Assessments of all transcripts by two trained psychologists	
10 Investors (I): Six venture capitalists working for Berlin's leading venture capital funds; four Business Angels who successfully launched and operated start-ups themselves	194 pages		
11 Start-up Consultants (SC): Seven consultants working for the Berlin-based start-up branches of the top five internationally leading management consultancies; two start-up consultants working for the chamber of industry and commerce in Berlin; two start-up consultants working for the Technology Centers of Berlin's prestigious universities and supporting university spin-offs	235 pages		
6 Start-up Coaches (C): Six independent, self-employed consultants that support and judge start-up founders throughout business plan competitions, hackathons and similar events on a frequent basis	114 pages		
Case Studies			
Case I (Carl)			
Documents		Case II (Marc)	
Narrative of founder	Number 1	Documents Narrative of founder	Number 1
Narrative of investor	1	Narrative of investor	1
Narrative of former employees	2	Narrative of former employees	2
Business plan	1		
Company presentations	17	Company presentations	9
Internal protocols of meetings	41	Internal protocols of meetings	31
Preparations of investment negotiations	3		
Pictures (internal events, fairs)	145	Pictures (internal events, marketing campaigns)	317
Website	1	Websites	2
Media coverage	12 articles	Media coverage	36 articles
			145 pages

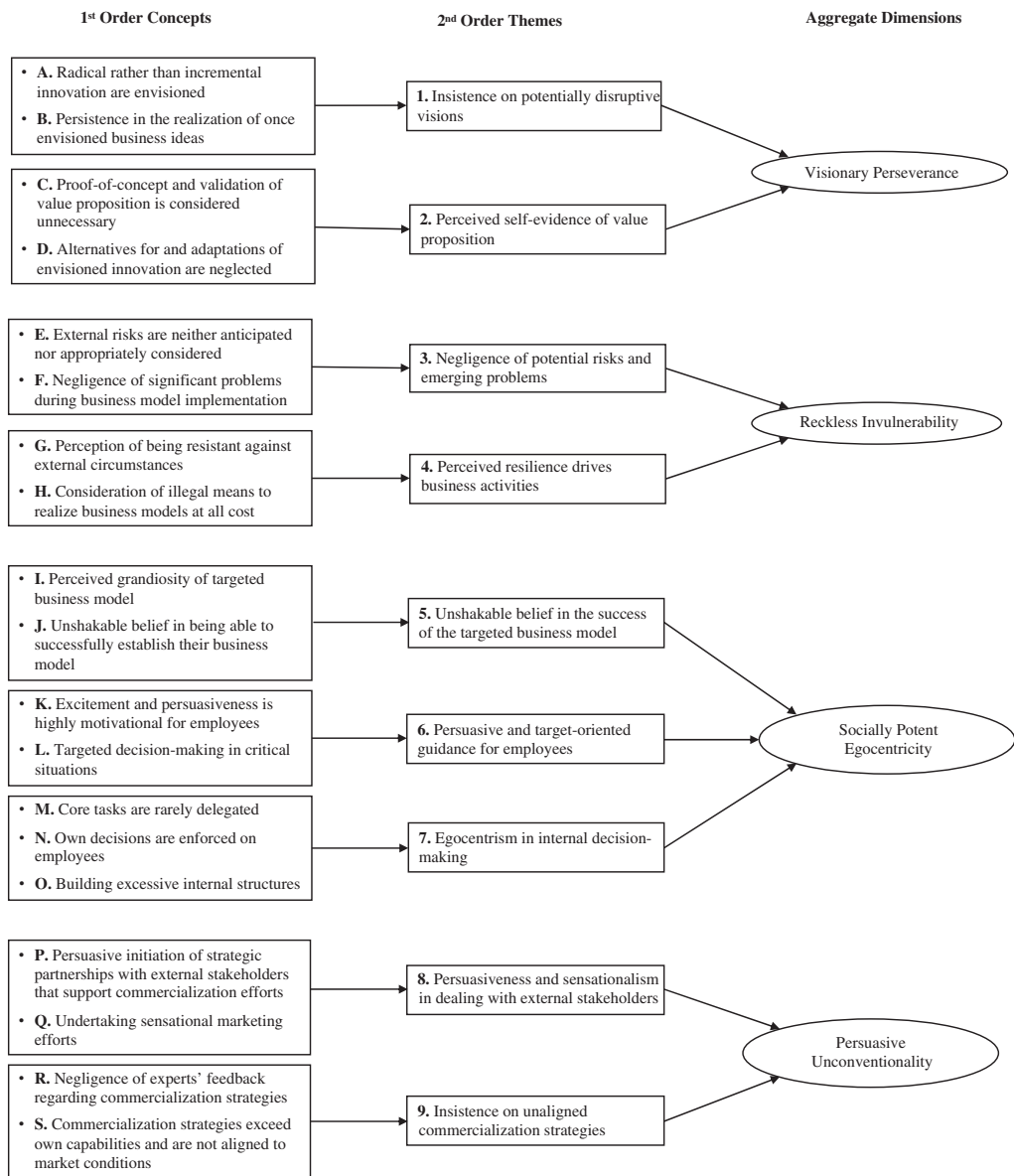


Figure 2. Manifestations of hubris in start-up founders' leadership behaviours

not have any specific framework or systematization in mind. However, during the first rounds of data analysis we realized that the distinction between the conceptualization of hubris and its manifestations was not always sufficiently clear. For this reason, and to avoid any confusion, we decided to classify the findings in accordance with the theoretical framework of start-up founders' core leadership behaviours as introduced above, i.e., innovation, internal coordination, arbitrage, and risk management.

We present our findings separately for each of the identified manifestations of hubris in explorative and exploitative leadership behaviours. The figures and tables in each section illustrate the emerging data structure and representative first-order data. All direct quotes presented below were first translated into English by the authors. To ensure the reliability of the data after the statements had been translated, we asked a colleague who is a native speaker of English and fluent in German to translate them back into German, which allowed us to compare and double check their meaning.

DATA ANALYSIS

Description of Cases

Both cases are anonymized, and all the following information has been endorsed by each of the respective founders.

Carl

Business model and value proposition. Carl's ambition to launch a new venture was triggered by the UMTS license auctioning in 2000 that resulted in higher data transmission rates and offered considerable business opportunities for mobile application providers. He wanted to take advantage of these developments and generated a dozen new business ideas. In the end, he decided to develop a mobile application that helps users prepare for their driving tests. The idea was based on his gut-feeling rather than having talked to his customers to validate his value proposition. His venture 'DrivingTest' was launched in Germany in 2003 shortly after he had turned 38, with Carl as the only shareholder who always had the final say. Although Carl had studied computer sciences, he only had minimal programming skills. He therefore employed five developers who were responsible for the technical realization of his mobile application.

Previous experiences and network. 'DrivingTest' was Carl's second venture after having launched his first mobile game start-up in 1996. That venture was still flourishing in the beginning of 2000, but he was looking for new challenges and wanted to start up a new venture from scratch. For the launch of 'DrivingTest', he benefited from his prior experiences of starting a business with more than 23 employees in the same industry. In addition, he had already established a business network that had contacts with competitors, such as Jamba, and key marketplace providers for mobile applications, such as Vodafone.

Financing and revenue streams. Carl initially bootstrapped his new venture and aimed to generate revenues from selling his mobile application. However, he was unwilling to sell 'DrivingTest' for only 0.99 USD per downloaded application, which was the only price Vodafone accepted at that time. Carl initiated lengthy negotiations that took several months and, eventually, he succeeded in selling his mobile application for 9.99 USD in Vodafone's marketplace.

Outcome. Despite these achievements, the venture failed a year later after Carl had neglected major issues, not least the limited storage capacities and net data transmission rates of the mobile phone technology at that time. The first version of the mobile game contained far too many features which mobile phones were unable to process at that time. His developers needed another six months to adjust the application in order to generate a version that was functioning with the contemporary mobile phone technology. During that time, whilst Carl did not generate any profit, he still had to pay his developers' salaries and the rent of the rather large office space. Even when he was facing bankruptcy, he did not acknowledge his failure until his bank contacted him, and even then, at first, he believed that the bank had made a mistake. By the time the mobile application had become functional, Carl had run out of funds for its commercialization. Unfortunately, it was already too late to start looking for another investor as he had dismissed all his employees in 2004 and liquidated the company. Nevertheless, the core idea of the app was developed further by Carl's developers who saw its potential and value in the rapidly evolving mobile games industry. The developers adapted crucial components of 'Driving Test' in order to develop a comparable and fully functioning mobile application that was ranked among the best mobile games in Vodafone's marketplace in 2006. In so doing, the developers addressed key issues that Carl had not considered previously when he was determined to launch the mobile application within only three months.

Marc

Business model and value proposition. In 1993, Marc launched a start-up which had an innovative radio station at the core of his business model. His aim was to provide an alternative to existing mainstream music programs by targeting especially young listeners in their early 20s who embraced popular underground DJ-music. During the first two and a half years, Marc employed three friends and collaborated with more than 30 DJs whose music was transmitted on his cable radio station and his music program was soon embraced by its target group in Berlin. However, Marc felt restricted by the limited range of cable radio, and from 1995 onwards, he aimed to broadcast to a wider audience of young listeners nationwide. However, this undertaking required an official broadcasting license being granted by the German media authorities, who applied very strict criteria. Such a move would also have meant that he had to leave behind the familiar underground music scene and comply with a highly regulated broadcasting industry. Nevertheless, Marc was convinced he would succeed and applied for the license. All the decisions in this regard were taken by himself without consideration of any internal or external concerns. When his concept was not approved by the media authorities on account of his lack of reputation in the broadcasting industry and lack of financial planning, he and his team occupied the offices of the German media authorities for several days to make a stand.

Previous experiences and network. Before embarking on the cable radio venture, Marc had launched a venture that organized popular music festivals in Berlin's underground scene. He thus had experience of venture creation processes and had built an important network with crucial players in the underground music scene and with DJs from all

over the world. Outside of the underground scene, however, Marc lacked contacts in the highly competitive and regulated German broadcasting industry, which could have helped him obtain the official license.

Financing. Marc had received some seed-funding of around 45,000 USD from his family, friends and smaller investors to initiate the radio station and apply for the required broadcasting license. The internal documents provided suggest that the business did not become profitable until 1998, as he had only vague ideas on how to generate revenues in the long run.

Outcome. Marc struggled to secure the required broadcasting license which was crucial to the implementation of his radio station. His occupation of the media authorities, however, led to considerable media coverage that resulted in public discussions regarding the issuing practices of broadcasting licenses. As a consequence of the public pressure generated, the media authorities stopped issuing broadcasting licenses for a couple of months. An entrepreneur of a large German fashion empire, who was also affected by these delays, offered Marc a collaboration in return for the cessation of his protest, which was pressurizing the authorities. Marc agreed, secure in the belief that the collaboration would mean that the entrepreneur would apply for two licenses, one for his own business and another for Marc's. However, he failed to sufficiently scrutinize the contractual conditions, and whilst he obtained his license, he had lost full control, as all decisions had to be taken jointly with his business partner. This situation caused Marc a lot of frustration and, eventually, he left his venture in 1998. Nevertheless, his radio station still exists today as it had been taken over by his business partner who realized the considerable market potential in Marc's core idea. To this day, the radio station continues to be quite popular with young listeners in Berlin, offering a mixture of mainstream and DJ music.

Manifestations of Hubris in 'Explorative' Leadership Behaviours

The data indicate that hubristic start-up founders display leadership behaviours of 'visionary perseverance' and 'recklessness based on a sense of invulnerability' (from here on, 'reckless invulnerability' for short) during the exploration of innovation potentials, which are captured by the innovation and risk management function. These manifestations of hubris entail both beneficial and detrimental aspects for venture creation processes. Figure 2 illustrates the findings and contains the emerging data in the adopted structure, i.e., first-order concepts, second-order themes, and the higher level aggregate dimensions. In Table II, representative first-order data are displayed to illustrate the empirical basis upon which the first-order concepts were developed.

Visionary perseverance (innovation). Various experts have highlighted the 'visionary power' of hubristic start-up founders 'who often identify innovation potentials that could possibly disrupt existing industries' (investor, 9 years' experience^[5]) (1). A typical example of this was illustrated by the statement of a start-up consultant with more than 15 years' experience, who observed that 'hubristic founders are the ones who question the status quo and really innovate' (start-up consultant, 15 years). Two investors described how they repeatedly negotiated with hubris driven founders who envisioned radical innovations with regard to 'sustainable

Table II. Representative data for the manifestations of hubris on explorative leadership behaviors

<i>Second-order themes and first-order concepts</i>	<i>Representative data</i>
Aggregate dimension: Visionary	
Perseverance	
1. Insistence on potentially disruptive visions	
A. Radical rather than incremental innovations are envisioned	A1. 'There was one founder who aimed to establish an entirely new goods cycle, actually an entirely new economy based on a sustainable currency' (I, 4 years). A2. 'He aimed to develop a very innovative e-government solution in order to motivate people who are less educated and who normally don't participate in elections' (I, 6 years).
B. Persistence in the realization of their business ideas	B1. 'One could probably find a less complex and much simpler business idea that would make many things a lot easier. However, he wants this idea and nothing else is taken into consideration' (SC, 5 years). B2. 'Persistence, persistence, persistence. He didn't deviate a single centimetre from his initial idea' (I, 16 years).
2. Perceived self-evidence of value proposition	
C. Proof-of-concept and validation of value proposition is considered unnecessary	C1. 'They don't consider what the customers perceive or want' (SC, 5 years). C2. 'I am a customer myself because I currently use the product the way it is. Hence, I know how to do it better and everybody will recognize the benefit immediately' (SC, 7 years).
D. Alternatives for or adaptations of envisioned innovation are neglected	D1. 'The few customers who already use the application are not satisfied and therefore, there is no evident proof-of-concept. He knows all of this, but he doesn't want to adapt the application because he is convinced that the customers just have to understand the solution to appreciate it' (SC, 5 years). D2. 'They argue that they know what the solution has to look like. Hence, the problem is not the solution, but the customers who don't understand it' (SC, 5 years).
Aggregate dimension: Reckless	
Invulnerability	
3. Negligence of potential risks and emerging problems	
E. External risks are neither anticipated nor appropriately considered	E1. 'He always interpreted objectively quantifiable risks in accordance with own perceptions, which were always perfectly fine' (SC, 11 years). E2. 'We were three investors and we all had competitors of his in our portfolios. He didn't care as he never perceived competition as competition' (I, 16 years).

Table II. *Continued*

<i>Second-order themes and first-order concepts</i>	<i>Representative data</i>
F. Negligence of significant problems during business model implementation	F1. 'It seems that there wasn't a single problem, but it took just two hours of market research to realize that his business was at risk – high risk' (I, 11 years). F2. 'I always tried to engage him in discussions, but he just didn't want to talk about the problems that occur during the implementation process' (C, 8 years).
4. Perceived resilience drives business activities	
G. Perception of being resistant against external circumstances	G1. 'I pointed out that there already were several successful competitors on the US-market but the only thing he said was: 'If the competitor in the US would have wanted to enter the market, he could have done so five years ago' (SC, 16 years). G2. 'Externalities were never reflected' (I, 9 years).
H. Consideration of illegal means to realize business models at all cost	H1. 'He always tended to go one step too far. More conservative people would say that he pursued illegal actions (SC, 7 years). H2. 'Existing laws were interpreted rather loosely when they caused difficulties with implementing the business model according to his vision' (C, 9 years).

currencies' (I, 4 years) and '*e-government solutions*' (I, 9 years). This drive to create radically new – and potentially disruptive – visionary scenarios is also reflected in the cases of Carl and Marc, who were both motivated by their ambitions to identify such innovation potentials. Carl set out to create '*something entirely new that would shake up the mobile games industry*', while Marc desired '*to create an entirely new radio format, something that nobody had ever seen before*'. Especially the investors perceived the visionary power of hubristic founders as highly beneficial for leadership during the venture creation process. Specifically, they stated that '*we need such founders who perceive only the sky as their limit. These are the ones who drive innovation in our economy*' (I, 16 years). The hubris-driven belief that anything is possible became particularly evident in the case of Marc. This founder was able to inspire an unwavering commitment among his employees who saw themselves as '*the Mongols of the radio. Our cavalry occupied territories that others didn't even guess existed*' (employee of Marc).

Despite these beneficial manifestations of hubris for the exploration of innovation potentials, it became also evident that '*hubristic founders are highly unlikely to ever question their business ideas, once they had started realizing them*' (SC, 3 years). Both Carl and Marc insisted on their innovative visions without ever seriously considering alternatives. The numerous product presentations and business plans of 'DrivingTest', for instance, indicate that Carl's initial business idea did not change during the entire venture creation process. Even when hitting upon obstacles, Carl never took into consideration that '*it doesn't work the way I imagined*'. Marc too faced considerable difficulties but, in his words, his '*options were death or honor, fame or failure, victory or defeat*'. Hence, he never questioned his original idea.

As a consequence of their unshakable belief in the potential of their innovative idea, hubristic founders seem to take the proof-of-concept of their business ideas for granted

and the value proposition offered as self-evident (2). One of the start-up consultants observed that *'hubristic founders frequently perceive themselves as fully identifying with their own target group. Hence, they decide what they like best about their value proposition. Effectively, the solution is then developed [in isolation] behind their closed office door'* (SC, 5 years). Their failure to validate or reassess the presumed value proposition leads them to *'disregard customer feedback that does not comply with their own visions as they are very, very firmly convinced that all it takes is for the rest of the world to recognize how beneficial their idea really is'* (SC, 11 years). Moreover, both Marc and Carl stated that they considered their existing industry experience from their previous venture creation processes to be sufficient. Marc, for example, thought he knew *'what was going on in the international party scene and what the people wanted to hear'*. This made them oblivious to any customer feedback during the early phase of his venture creation. Instead, the data suggest that hubristic founders tend to perceive negative feedback and even a lack of demand *'as a problem on the customer side'* (C, 4 years). This attitude is exemplarily reflected in the narrations of a start-up consultant who worked with a hubris-driven entrepreneur for several months: *'The founder I accompanied received negative customer feedback such as "The application is too complicated. You cannot use it. It needs to be easier". He simply disagreed and said: "They just need more time to understand it"'* (SC, 5 years).

Reckless invulnerability (risk management). One core behaviour of leaders – especially relevant to start-up founders – involves the ability to deal with risk management in the face of uncertainty. However, the data suggest that hubristic entrepreneurs are less likely to consider internal and external risks as they tend to perceive themselves to be invulnerable – regardless of the consequences. This leads to neglecting potential external risks, such as new market regulations or competitors, and internally occurring problems during the business model implementation (3). Instead, their perceived resilience seems to drive the business activities of hubristic founders (4). The data suggest that these manifestations of hubris can also have some beneficial impacts on leadership behaviours as hubristic founders tend to *'push ahead instead of stopping, even in case of doubt'* (SC, 7 years). One of the investors accompanied a hubristic founder who *'never acknowledged that something didn't work out but always tried to find new opportunities to actually make it work'* (I, 16 years). Marc too benefited from this recklessness as he *'didn't ever perceive problems but only temporal delays in the development of [his] radio station'*.

However, *'their strong focus on perceived chances and incredible underestimation of risks'* (C, 12 years) means that hubris-driven entrepreneurs have a tendency to rarely evaluate and tackle risks. In the cases of Carl and Marc it became evident that both founders *'subjectively interpreted risks'* (employee of Marc) and *'consistently neglected all our concerns with regard to the feasibility of the mobile application'* (Carl's developer). Carl in particular neglected obvious obstacles resulting from the limited net data transmission rates and storage capacities of mobile phones, which put the whole start-up at considerable risk: *'we were running out of money as the whole development process took longer and longer. We were facing insolvency and I didn't realize it until my bank called me'*.

Interestingly, several experts described experiences with hubristic founders who would rather engage in illegal business activities than re-evaluate or abandon their business models. One of the founders *'pretended to have internal returns that did not exist'* (SC, 11 years), whereas another *'never told his customers that he was selling their personal data'* (C, 6 years). Marc

too violated laws when he occupied the media authorities for several days in order to raise public awareness.

Manifestations of Hubris in ‘Exploitative’ Leadership Behaviours

As part of exploring new business opportunities, start-up founders need to internally and externally exploit innovation potentials through performing the internal coordination and arbitrage function. Our data indicate that once more hubris is manifested in both beneficial and detrimental leadership behaviours in this regard. Specifically, hubristic start-up founders are found to display ‘socially potent egocentrism’ when coordinating internal exploitation matters, whereas their guidance of external commercialization efforts is characterized by ‘persuasive unconventionality’. Table III contains all relevant first-order data.

Socially potent egocentricity (internal coordination). In terms of benefitting the internal coordination, social potency is often ascribed to hubristic founders, referring to their ability to positively influence their employees’ motivation and faith in their vision (Ensley et al., 2006; Ensley and Pearson, 2005; Lester et al., 2002). In this regard, they benefit from an unshakable belief in the success of their targeted business model (5) that leads them to actually exploit previously identified innovation potentials in the first place. Various experts stated that *‘without hubris, you probably wouldn’t launch a venture in many industries’* (SC, 4 years). Similar to their belief in the grandiosity of their identified innovation potentials, *‘they are convinced that their business model will doubtlessly succeed in the targeted markets’* (C, 7 years) and *‘that this one specific product is going to make a better world’* (I, 11 years). This conviction seems to be shared by their employees, who are initially highly motivated in supporting the exploitation process. Similarly, staff employed by Carl and Marc described the *‘magic’* and *‘indispensable power’* that emanated from the founders and inspired their teams. Carl’s developer stated that *‘Carl projected so much strength and power that nobody in our team ever doubted our success. Our success was always so obvious’*.

In addition, the data indicate that hubristic entrepreneurs tend to *‘provide their ventures with a clear direction’* (SC, 4 years), which enables them to *‘carry others with them’* (I, 16 years) (6). Their ability to manage internal processes in a targeted manner can be observed particularly in difficult situations, in which the implementation of the business model is at risk. Several experts state that *‘they are able to deal even with extremely difficult situations’* (I, 16 years) as *‘they don’t make decisions democratically but tell their employees how to deal with the situation’* (C, 11 years). One highly experienced consultant stated that *‘we had good experiences with teams in which one person considerably overestimated him or herself. This person carries others with them’* (SC, 17 years). For these reasons, many experts described hubristic entrepreneurs as *‘highly persuasive’* (I, 11 years) and *‘target-focused’* leaders (SC, 12 years).

Nevertheless, their egocentrism with regard to internal decision-making (7) can also cause problems once the initial euphoria among the employees has subsided. In particular, the data indicate that hubristic entrepreneurs tend to take care of all crucial tasks related to the internal exploitation of their business idea *‘as they do not trust anybody else to have sufficient skills’* (SC, 16 years). One investor described a hubristic founder who was even *‘unhealthily obsessed with realizing the business model on his own’* (I, 17 years). Another

Table III. Representative data for the manifestations of hubris on exploitative leadership behaviours

<i>Second-order themes and first-order concepts</i>	<i>Representative data</i>
Aggregate dimension: Socially Potent Egocentricity	
5. Unshakable belief in the success of the targeted business model	
I. Perceived grandiosity of targeted business model	<p>I1. 'Their conviction is triggered by the unshakable belief that their solution is absolutely the best and other offers on the market are a joke in comparison' (SC, 4 years).</p> <p>I2. 'He even approached politicians and wrote letters to the Prime Minister. He told him that he was offering exceptional solutions to the start-up scene and therefore, he deserves funding' (I, 6 years).</p>
J. Unshakable belief in being able to successfully establish their business model	<p>J1. 'There was never a single doubt that his business model wouldn't succeed' (SC, 15 years).</p> <p>J2. 'This belief and this faith in the business model were just incredible' (C, 9 years).</p>
6. Persuasive and target-oriented guidance for employees	
K. Excitement and persuasiveness is highly motivational for employees	<p>K1. 'His employees were highly motivated. They believed him and he believed in his business model' (SC, 5 years).</p> <p>K2. 'You should have worked with him. He was persuasive and you just believed in every word he said. At least in the beginning' (employee of Marc).</p>
L. Targeted decision-making in critical situations	<p>L1. 'They are able to deal even with extremely difficult situations' (SC, 5 years).</p> <p>L2. 'Thanks to their charisma, these founders can deal with extremely difficult situation because they are able to wrap employees around their fingers' (I, 16 years).</p>
7. Egocentrism in internal decision-making	
M. Core tasks are rarely delegated	<p>M1. 'He wanted to do everything himself, even things that he wasn't capable of doing' (SC, 7 years).</p> <p>M2. 'He was constantly worried that other people couldn't achieve what he was capable of achieving' (SC, 15 years).</p>
N. Own decisions are enforced on employees	<p>N1. 'He always wanted to have the final say, he had to decide even when he was wrong' (SC, 15 years).</p> <p>N2. 'He imagined a complicated approach for the realization of his business idea and his employees told him that this approach might not be the smartest as the development process would consume a lot of time. One could find a much easier solution to realize this application, but he didn't consider these concerns and everybody in the team had to follow' (SC, 8 years)</p>

Table III. *Continued*

<i>Second-order themes and first-order concepts</i>	<i>Representative data</i>
O. Building excessive internal structures	O1. 'Oh boy, you should've seen this immense office space and the fabulous furniture he bought. It looked great but it was just over the top. He never met customers in the office' (I, 16 years). O2. 'I was overwhelmed by how much he spent on his internal structures' (I, 17 years).
Aggregate dimension: Persuasive Unconventionality	
8. Persuasiveness and sensationalism in dealing with external stakeholders	
P. Persuasive initiation of strategic partnerships with external stakeholders that support commercialization efforts	P1. 'People who didn't know him well just couldn't wait to support his commercialization efforts. It is incredible how he managed to convince people. Listening to him, it all sound brilliant and leaves you in no doubt that he will pull it off' (SC, 15 years) P2. 'He succeeded again and again to attract smaller investors who provided money for his crazy marketing campaign. The way he talked was always very charismatic' (C, 6 years).
Q. Undertaking sensational marketing efforts	Q1. 'The media were full of how we occupied the media authorities' (employee of Marc). Q2. 'He branded a whole building in the city centre with their logo and message. He never got permission to do so but the media went crazy about it' (SC, 8 years).
9. Insistence on unaligned commercialization strategies	
R. Negligence of experts' feedback regarding commercialization strategies	R1. 'He never listened. He just never listened. Two investors and two highly experienced entrepreneurs pointed out that his commercialization strategy would not work out. He didn't heed any of their concerns' (I, 16 years). R2. 'He never wanted to discuss commercialization matters but we should've read his contract. He even discussed with me but never seriously considered my feedback. Never' (I, 17 years).
S. Commercialization strategies exceed own capabilities and are not aligned to market conditions	S1. 'It would have been easy to take a look at how competitors approach the market. It was obvious that the customers wouldn't buy the product in the supermarket, but that's what he wanted' (SC, 4 years). S2. 'He had no idea how to do online marketing. He was a mathematician. A genius mathematician. He had never heard about SEO and these things' (SC, 16 years).

invested in the project of a founder who 'got close to a heart attack. He was working in a team of eight people, but he did everything himself. He got fatter and fatter on his seat, but his employees were only allowed to string bits and pieces together. He did all business events and transactions himself'

(I, 11 years). Similarly, Carl's developer described how the internal concerns of the team with regard to the technical feasibility of the mobile application were ignored: *'It took us considerably longer than initially estimated to develop our app due to limited storage capacities and data transmission rates. These obstacles weren't surprising, but Carl never considered our concerns'*. Instead, the experts agreed that hubristic founders tend to follow the credo *'think as big as you can'* (SC, 17 years). This seems to be generally favourable to the venture creation process as *'the bigger you think, the bigger it might get'* (SC, 8 years) but it was also observed that *'they often think big but without thinking it through'* (SC, 4 years). One of the coaches explained how a hubristic founder *'rented a far too large gas station, ordered more and more machines, and all of this without any plan or calculations'* (C, 11 years). In the same vein, Carl rented large office spaces and bought an expensive vehicle fleet for his start-up. Eventually, he and his team *'had to lay off employees, leave our big and nice office, and sell a bunch of cars, all of which was a disaster'* (Carl).

Persuasive unconventionality (arbitrage). As with the internal coordination, the manifestations of hubris in leadership behaviours that foster the external exploitation of identified innovation potentials are equally ambivalent. On the one hand, hubristic founders seem to be highly persuasive in terms of securing commitment from external stakeholders that are relevant to the commercialization of their products and services. On the other hand, they insist on commercialization strategies that are not necessarily aligned to the conditions of the target market.

In terms of benefits, hubristic start-up founders are characterized by many experts as *'excellent sales persons'* (I, 11 years) as they are *'highly authentic and persuasive in the communication with external parties'* (SC, 16 years) (8). Their appeal seems to support them particularly in the execution of leadership behaviours related to securing commitment in terms of external capital from investors, who similarly have described hubristic founders as *'friendly people, they often look good, they know how to talk, and they convince you in a manner that you feel super comfortable'* (I, 17 years). Interestingly, even highly experienced investors were unable to rationally explain why they invested in the business of hubristic founders. Instead, one investor described how he was *'captured by their nature and I often wonder how these people succeeded to convince me'* (I, 21 years), and another investor admitted that *'from a rational point-of-view, I cannot explain why I unconditionally believed in them'* (I, 11 years). Similar evidence can be found in the case of Carl, who succeeded in his negotiations with Vodafone. As a result, he was able to sell his mobile application at a *'price point of 9.99 USD in the games stores. This price didn't exist before'*. His employee was part of these negotiations and described them as *'lengthy and difficult as we never got a single sign that Vodafone was actually considering our claim. But Carl was astonishing. With his persuasive attitude he convincingly demonstrated again and again that the commercialization of our app at a higher price point would open up completely new avenues. And he just didn't give up'*. Many of the experts described the commercialization efforts of hubristic founders as *'sensational'* (SC, 7 years) and *'unconventional'* (SC, 12 years). Marc, for instance, succeeded to guide the commercialization efforts of his team towards unconventional guerrilla-marketing campaigns that involved the occupation of the media authorities for several days.

Nevertheless, the data also indicate that hubristic founders tend to insist on commercialization strategies that are not aligned to their overall strategy or to their target market

(9). Internal documents provided by Carl and Marc indicate that both considerably underestimated commercialization matters and assessed the market only in a superficial manner. This behaviour impaired their guidance of their teams towards the development of efficient long-term commercialization efforts, as also reflected in the narrative of various start-up consultants. One of them accompanied a new venture founder and his team who *'never reflected how they could even generate the first customers and how they could finance their acquisition. Instead, they anticipated that, "once we reach two million customers, we are going to sell their data to Google and use advertisements to finance ourselves"'* (SC, 8 years). Crucially, hubristic founders seem to mostly ignore external expert feedback on the issues of commercialization. Various experts experienced that they were *'hardly allowed to ask critical questions in relation to their commercialization strategies'* (SC, 7 years).

Overall, the data suggest that hubris facilitates the initiation of strategic partnerships with external stakeholders but impairs the guidance of employees towards the development of long-term commercialization efforts as hubristic founders seem to pay insufficient heed to external market conditions.

DISCUSSION OF FINDINGS

Theoretical implications

Our findings allow us to derive several theoretical contributions to the literature on entrepreneurial leadership, particularly to studies on the effectiveness of hubristic leadership. First and foremost, we broaden the scope of the hubris tradition of research by overcoming the 'negative-negative paradigm' (Bollaert and Petit, 2010, p. 363) of research on hubristic leadership and by challenging the inherent association of hubris with detrimental leadership outcomes (Bollaert and Petit, 2010; Judge et al., 2009; Tang et al., 2015b). We argue that this predetermined view of hubris as a purely 'dark' psychological disposition neglects crucial advances in existing literature. It disregards well-established findings from personality psychology indicating that the personality dimensions characteristic for hubris have, like any other personality trait, both upsides and downsides (Furnham et al., 2012; Nettle, 2006; Resick et al., 2009), and it neglects contradictory empirical evidence generated by Tang et al. (2015a) who were a considerable inspiration for the study we conducted. Following their findings on hubris as a driver of firm innovation, we started our research by tracing the cases of Elon Musk, Steve Jobs and Dean Kamen. These cases suggested that the ambivalent manifestations of hubris are particularly observable in leadership behaviours of start-up founders who operate under conditions that entail only low impediments to leadership (Busenitz and Barney, 1997; Ensley et al., 2006; Shane and Venkataraman, 2000). To the best of our knowledge, we are among the first to provide rich empirical evidence for the ambivalent manifestations of hubris in start-up founders' leadership behaviours.

Our research provides a first scholarly response to the prevailing criticism that the hubris tradition of research tends to only 'look at some trees and miss the whole forest' (Picone et al., 2014, p. 448). With our approach and findings, we open up several avenues for future research and, perhaps even more importantly, equip scholars aiming to

contribute to the hubris tradition of research with a strong argument to look for both positive and negative manifestations of hubris in leadership behaviours. We know from our own experience of presenting and discussing prior versions of our work how difficult it is to overcome the predominantly negative connotation of hubris across various research disciplines. Nevertheless, our findings clearly indicate that more impartial and nuanced examinations are needed to relieve the tensions between the widespread association of hubris with suboptimal behaviour and the observation that hubristic leadership nonetheless persists (Bollaert and Petit, 2010; Judge et al., 2009; Picone et al., 2014).

As one of the reasons for the persistence of hubristic leadership, we found that hubris is a contributor to leadership emergence in start-up contexts. In particular, we found that it equips start-up founders with the necessary courage to persistently exploit identified innovation potentials despite the considerable likeliness of venture failure. These insights are also reflected in the hubris theory of entrepreneurship by Hayward et al. (2006) which we are able to extend by showing that the 'bright' effects of hubris can be found well beyond the emergence of start-up founders. Our findings indicate that hubristic entrepreneurs are also successful in performing crucial leadership behaviours, particularly those involving the creation of visionary scenarios, guiding employees in critical situations, and securing commitment from third parties. Whilst hubristic founders might be likely to fail overall, we show that 'such failure is not necessarily bad for ventures and entrepreneurial activity' (Hayward et al., 2006, p. 170).

Given the ambivalent implications of hubristic leadership across different levels of analysis, future research is well advised to take a closer look at its boundary conditions. For instance, our findings suggest that the particular type of leadership behaviour of hubristic founders accounts for the observed ambivalences. According to the outcomes of our study, hubristic leaders are particularly well suited to explore innovation potentials that are likely to trigger processes of 'creative destruction' in the Schumpeterian sense, which involves the performance of leadership behaviours for which outcomes are highly uncertain to predict (Bollaert and Petit, 2010; Judge et al., 2009). These findings indicate that hubris is particularly beneficial in earlier stages of the venture creation process. Still, future research is required to gain a more fine-grained and longitudinal perspective on the manifestations of hubris and to specify the boundary conditions that divide the presumably thin line between beneficial and detrimental manifestations of hubris in explorative and exploitative leadership behaviours. Relevant research questions are: How do hubristic leaders fare over the long term? How do the dark and bright manifestations of hub leaders play out over the long term?

In addition, we recommend that contextual conditions need to be taken into consideration in order to strengthen theories on hubristic leadership. In our study, we focused on the start-up context and provided a detailed discussion of its specificities, and concluded that hubristic leadership only entailed low impediments to the start-ups investigated. The findings by Tang et al. (2015b) indicate that some of the beneficial manifestations of hubris we found in our analysis are also likely to occur in contexts of more mature and established organizations. We acknowledge their findings but argue that, compared to start-ups, the organizational climate in established organizations is less conducive to such leaders acting out their innovative visions, thus, limiting the extent to which hubris is manifested in core leadership behaviours in this context (Chesbrough, 2010). In spite

of these differences, it is crucial to determine contextual conditions as moderators of hubris' manifestations in order to design suitable governance measures able to mitigate detrimental outcomes of hubristic leadership while encouraging beneficial ones. To date, literature still lacks comparative studies that examine which type of governance structures can deal more effectively with hubristic leaders across contexts.

Monitoring measures might be especially suitable to overseeing the internal and external exploitation of identified innovation potentials for which hubristic founders are found to display 'socially potent egocentrism' in coordinating internal exploitation matters, whereas their approach towards external commercialization efforts is characterized by 'persuasive unconventionality'. Social potency refers to the ability to inspire and motivate employees (Ensley et al., 2006; Ensley and Pearson, 2005; Lester et al., 2002) to the point where they share with their leader an unshakable belief in the inevitability of the future success of their business model. This finding is rather new to the hubris tradition of research but similar assumptions are also reflected in the previously discussed 'hubris hypothesis of corporate takeovers' by Roll (1986). Similar to decision-makers in M&A processes, hubristic start-up founders are also likely to overestimate their ability to extract extraordinary values from identified innovation potentials. Nevertheless, this hubris-driven belief seems to be primarily beneficial in start-up contexts. Specifically, our data indicate that the hubristic founders' unshakable belief in their inevitable success positively influences the internal motivation among their employees who are thus persuaded to support the exploitation processes. Nevertheless, these beneficial manifestations of hubris seem to fade once the initial euphoria among their employees has subsidized, and they come to realize that the founder rarely gives due consideration to their concerns and ideas. The hubris-driven persuasiveness in fostering the internal motivation among their employees is also reflected in the founders' ability to secure commitment from external stakeholders that could support commercialization efforts. Especially investors seem to be persuaded by the charisma of hubristic founders, which surprisingly appears to be of greater importance to their investment decisions than rational arguments. Given that this external perception of hubristic start-up founders has so far been neglected in the hubris tradition of research, it provides interesting avenues for future research, as discussed below.

The Janus face of hubris, with its 'bright' and 'dark' manifestations, has emerged as a result of our holistic and impartial examinations of hubris across core leadership behaviours. The theoretical framework we have developed for this purpose allows future research to systematically examine core leadership behaviours that guide the exploration and exploitation of innovation potentials in start-up contexts: (1) innovation (Schumpeter, 1934), (2) risk management (Knight, 1921), (3) internal coordination (Cole, 1949; Gartner, 1988), and (4) arbitrage (Kirzner, 1973; Mises, 1949). Our framework specifies the scope of leadership behaviours affected by hubris and can therefore be used to inform future research concerned with providing more holistic knowledge in this regard. It could be used, for instance, as an extension to the 'conceptual map of managerial hubris research' by Picone et al. (2014), by providing a holistic perspective on the implications of hubris for what the scholars label the 'hubris-driven strategic choices' that managers must make. In addition, the framework could inform related research on entrepreneurial leadership, without necessarily focusing on personality traits.

Practical Implications

These findings and contributions carry manifold practical implications for hubristic start-up founders and stakeholders who are affected by the implications of hubristic leadership, including employees, investors, consultants, and coaches. Although it seems quite difficult to guide hubristic entrepreneurs, we agree with de Vries (1990) that ‘help is needed to recognize the distortions of reality. Someone is needed to point out the symptoms of hubris’ (p. 7). Therefore, we recommend educating upcoming start-up founders and their potential stakeholders about hubris and its ‘bright’ as well as ‘dark’ manifestations across core leadership behaviours. Reflections about how personality traits could affect venture creation processes should become an integral part of entrepreneurship training programs offered by universities, start-up associations and other institutions that provide guidance for (upcoming) start-up founders. In addition, it has been found that exploring case studies of leaders in comparable positions is a powerful means of catalysing personal reflections on own behaviours and strategic choices (Schedlitzki et al., 2015). Hence, studying behaviours of other hubristic founders might trigger a certain degree of reflexivity that enables dealing with them more effectively to mitigate detrimental outcomes while not stymying beneficial behaviours.

Our data indicate that practitioners need to be firm with hubristic entrepreneurs, and to play devil’s advocate by encouraging them to defend their ideas and strategies. Several of the consultants and investors interviewed stated that they require their founders to regularly reflect their strategic choices in light of the milestones achieved and the challenges encountered along the way. On the basis of such regular updates, practitioners are able to provide honest feedback and monitor the responsiveness of the founders facing potentially harmful risks. If the founders fail to respond, the experts suggested pointing out extreme scenarios of potential consequences, which is an ‘institutionalized way of reminding the power holder of the transience of [their] position’ (de Vries, 1990, p. 8), as an often times efficient way to trigger self-reflections in hubristic entrepreneurs. As long as this intervention does not lead to any change in behaviour, investors in particular should consider “to use pressure and threaten them with potential sanctions. If this doesn’t work and they don’t change their mind, you should abandon the collaboration before it is too late’ (I, 16 years).

Limitations and Future Research Opportunities

Despite the carefully chosen research design and analytical approach, our study has several limitations and opens up questions that should be addressed in future research. First, we determined hubris through third parties who brought extensive experience of working with start-up founders, and who we assumed were able to distinguish hubristic from non-hubristic behaviour. However, we were not able to additionally determine the self-assessments of the founders in this regard, and our validity checks required the involvement of scholars from different disciplines. It is important to point out that the validity of the CSE scale which we adopted for triangulating our data, has not been supported by any rigorous empirical examination in the literature to date. In other words, its underpinning assumption, which posits a correlation between ‘extraordinarily high levels of CSE’ – deemed to be an enduring disposition – and hubris, a temporary psychological

disposition, remains unsupported. Therefore, we would encourage future research to develop methods that can facilitate how hubris is captured through a combination of both self and peer-assessments, particularly in qualitative research designs. Such methods would also enable an extension of our findings through more fine-grained analyses, investigating distinct research questions, such as why hubristic leaders act the way they do, how variations in the outcomes of hubristic leadership can be explained, and how hubristic start-up founders and executives are perceived by third parties in specific situations, such as raising capital, extracting employee commitment or initiating new projects. In addition, a thorough conceptualization of hubris would allow for a comparison of the behaviours of hubristic and non-hubristic leaders. We have focused on hubristic start-up founders to gain a deeper understanding of how their hubris is manifested across core leadership behaviours and have deliberately designed an exploratory study to generate answers to this question. Nevertheless, our data does not allow to compare their behaviours with that of non-hubristic leaders, and future comparative studies are needed to clearly contrast manifestations of hubris from non-hubristic behaviours.

Second, the underlying conceptualization suggests that hubris is a temporary psychological disposition that diminishes when power fades. Little is known, however, about variations in the level of hubris during the venture creation process. As our study was not designed to investigate such variations, future research could address this limitation and find out whether any distinct moderators can be detected that influence variations in hubris and its influence on venture performance at different life-cycle stages. Thirdly, the interpretation of our empirical data was highly dependent upon our theoretical perspective and framework. Hence, our findings only depict one possible perspective on the data. The application of distinct perspectives and frameworks in future research projects is likely to foster theory development through additional insights on the manifestations of hubris in leadership behaviours. Particularly interesting in this regard are examinations on the transferability of our findings to the manifestations of hubris on executives' leadership behaviours in established organizations. Furthermore, our study remains silent on gender aspects, but our data clearly indicate that particularly male start-up founders tend to be driven by hubris. Future research might find interesting insights on gender-specific triggers of hubris and differences in the approaches of mixed teams and unisex teams to dealing with hubristic leaders.

CONCLUSION

In this paper, we have moved towards a more fine-grained and comprehensive understanding of how hubris is manifested in leadership behaviours that guide the exploration and exploitation of innovation potentials in start-up contexts. We have built our work on a theoretical framework that draws upon classical economic and entrepreneurship theorizing. This framework allows us to comprehensively explore the 'bright' and 'dark' manifestations of start-up founders' hubris in core leadership behaviours. Our empirical analysis was based upon data from narratives of experts, who directly interact with new venture founders on a regular basis, and two case studies of hubristic founders. While there is a growing amount of research on entrepreneurial leadership, impartial research

on how distinct psychological dispositions, particularly hubris, affect start-up founders' effectiveness remains still limited. As such, our research represents a valuable step forward, whilst further investigations are needed to foster theory development in this regard. Future research endeavours could benefit from this research and inform current and future entrepreneurial leaders to recognize distortions of reality that can be detrimental to the successful realization of their far-fetched ideas.

NOTES

- [1] Elon Musk (2018). Q&A Session at the SXSW Conference. 11 March 2018, Austin.
- [2] Steve Jobs (2011). *Steve Jobs: One Last Thing*, Video Documentary.
- [3] Dean Kamen (2016). Speech at the 5th Forbes 400 Summit on Philanthropy. 8 July 2016, New York.
- [4] By drawing on dual-process theory, Claxton et al. (2015) discuss how hubristic leaders are exposed to the 'perils of unbridled intuition' as they focus their information processing extensively on intuition (system 1) rather than on the analysis of rational arguments and actual conditions (system 2).
- [5] For ease of identification of interviewees, investors are indicated by the letter I, start-up consultants with SC, and coaches with C, all followed by the number of years of experience of working with founders.

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