

Master Thesis

CEO Narcissism in times of high uncertainty:

A research into the effects of CEO narcissism on CEO acquisition frequency during the Covid-19 crisis.

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Abstract

Prior studies indicated high degrees of narcissism as a prelude for exaggerated CEO acquisition behaviour, however the debate remains whether narcissistic CEOs favour acquisition size over acquisition quantity. Within our research we built on the Upper Echelons Theory and re-examined the relationship of CEO narcissism on CEO acquisition frequency. In doing so, we accessed Trait Activation Theory to moderate the relationship for times of high uncertainty, in this research represented by the Covid-19 crisis. We operationalized CEO narcissism by means of a third-party adapted version of the 16-item Narcissistic Personality Inventory (NPI). Consequently, we employed a thin-sliced video metric approach to capture the CEO's narcissistic personality traits unobtrusively. Our total sample comprised 107 S&P 500 CEOs within a 2-year timeframe ranging from 01/02/2019 until 31/03/2021. Our data showed that CEO narcissism poses no significant influence on the CEO's acquisition frequency. In addition, we found that times of high uncertainty do not exert any significant effect on the relationship of CEO narcissism between CEO acquisition frequency. More specifically, and contrary to our expectations, we concluded that high uncertainty mitigates narcissistic behaviour. We found support in the threat rigidity hypothesis and argue that the threat of the Covid-19 crisis created such high uncertainty that firms reacted rigidly which restricted the excessive acquisition behaviour of the CEOs.

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1. Introduction

Times of high uncertainty may affect the routines of our daily lives, firms, and the global economy. Currently, the Covid-19 crisis is doing so. The magnitude of this crisis caused worldwide economic uncertainty which led to disruptions in the market environment and forced firms to redevise their strategies (Hitt, Arregle, & Holmes, 2021). Hitt, Sirmon, et al. (2021) found that firms within dynamic and uncertain environments are more likely to engage in risky strategies. These risky strategies are often initiated by the CEO, for the CEO is the most influential executive within a firm (Hambrick, 2007). Hence, the CEO's behaviour is considered as a predictor of firm behaviour. Based on the Upper Echelons Theory (UET) of Hambrick and Mason (1984), a popular research movement has emerged that examines the influence of in particular a narcissistic CEO on the organisation. While UET argues that the personality traits of CEOs influence the strategic actions of firms, the Trait Activation Theory suggests that personality traits are being triggered by the situational context that affect the decision making of the CEO (Judge & Zapata, 2015). Behavioural studies argue that a narcissist has a natural urge to emerge as a leader. From this position, a narcissist is able to satisfy his craving for narcissistic supply in the form of admiration, confirmation, and self-glorification (Campbell & Foster, 2007). It has therefore been posited that a high degree of narcissism is a prerequisite for getting to the top of an organisation (Chatterjee & Hambrick, 2007).

Previous studies into CEO narcissism show that, e.g., narcissistic CEOs tend to initiate acquisitions more often and negotiate faster (Aktas et al., 2016), boost firm performance after a period of crisis (Patel & Cooper, 2014), and undertake risky and attention-seeking initiatives (Chatterjee & Hambrick, 2007; 2011). Some strategic initiatives are more grandiose and attract more attention than others. Acquisitions, especially large acquisitions, are among the most noticeable initiatives a CEO can take (Haspeslagh & Jemison, 1991). It is therefore argued that narcissistic CEOs are more likely to engage in acquisitions (Chatterjee & Hambrick, 2007; 2011; Zhu & Chen, 2015).

The recent explosion of research examining behavioural traits of CEOs and acquisitions demonstrates the increasing interest in this topic. However, although these progressive contributions are rich and multidisciplinary, they are also divergent (Devers et al., 2020). This absence of coherence creates challenges for researchers to reach unambiguous understanding on the effects of CEO narcissism. For example, Chatterjee and Hambrick (2007) argue that CEO narcissism is positively related to both acquisition size and frequency. While Aabo et al.

(2020) argue that narcissistic CEOs prefer size over quantity, because larger firm acquisitions elicit more media attention. Whereas Campbell and Foster (2007) suggest that the cravings for narcissistic supply are always present, regardless of the magnitude an initiative yield. Thereby, it is being argued that certain circumstances trigger narcissistic behaviour more than others. Patel and Cooper (2014) and Foster et al. (2011) show that in times of a crisis, a narcissist is maladaptive in their behaviour resulting in ever riskier decision making. In addition, supported by Attribution Theory, one could even argue that a crisis enhances narcissistic behaviour. This is because failures will be deemed to external factors, and successes will be claimed personally. In conducting our research, we answer the call of Cragun, Olsen, and Wright (2020) by looking into conditions that manifest narcissistic behaviour. Therefore, we formulated the following research question: *To what extent does CEO narcissism affect CEO acquisition frequency and how does high uncertainty impact this relationship?*

The purpose of this paper is to examine the relationship between CEO narcissism and the number of acquisitions the CEO initiates. In doing so, we moderate this relationship by times of high uncertainty, represented in this research by the Covid-19 crisis. The Covid-19 crisis is a novel phenomenon in management studies, which enables us to introduce the influence of this crisis on CEO narcissism to the literature. Hence, our research contributes to knowledge on CEO narcissism and acquisition frequency during times of high uncertainty. Moreover, practitioners benefit from our research. As firm behaviour is often predicted by CEO personality, knowing which personality triggers which behaviour is of use. This is particularly the case during times of high uncertainty where firm behaviour is increasingly decisive for firm survival (Malhotra et al., 2018).

In order to measure CEO narcissism, we employ a thin-sliced video metric approach (Benjamin & Shapiro, 2009) which allows us to measure narcissistic personality traits unobtrusively. Despite this validated method and contrary to prior research, we found no significant results for the relationship of CEO narcissism on acquisition frequency. The impact and all sanctions taken due to the Covid-19 crisis are of such a magnitude that CEOs behaved differently than hypothesized.

Our research report proceeds as follows. The next section starts with a literature review and states the hypotheses of this research. Next, the data and methodology are explained, after which the results of the regression analysis are presented. Subsequently, the results are being discussed and finally a conclusion on the research is provided.

2. Theoretical background

This chapter explains the core concepts and their relevance in this research. Firstly, we delve deeper into understanding the concept of narcissism and CEO narcissism. Secondly, we turn to the literature on acquisitions and determine how this relates to CEO narcissism. Thirdly, we look into the last concept of crisis to identify the context of the study. Subsequently, we formulate our hypothesis and finally conclude with a conceptual model to provide a visual overview of the found literature and their hypothesized relationship.

2.1 Genesis of narcissism

Narcissism found its inception in 1898 when Havelock Ellis introduced it to the psychology literature (Ellis, 1898). Ellis based the term on the myth of a young man Narcissus, who fell in love with his own reflection and eventually perished as a result of his self-preoccupation (Chatterjee & Hambrick, 2007). This influenced the thinking of Freud (1914) who published "On Narcissism: An Introduction" back in 1914. In it, Freud reasoned that everyone possesses a certain degree of narcissism. If this were not so, we would not be able to survive or attain to our needs (Maccoby, 2000).

Ellis and Freud are the origin of the two schools of thought within narcissism research. Ellis uses a clinical perspective and sees narcissism as a personality disorder (Kohut, 1966), whereas Freud addresses narcissism from a social-personality perspective as a personality trait (Campbell & Foster, 2007). Assuming the clinical perspective, one speaks of a Narcissistic Personality Disorder (NPD) when an individual is mainly characterized by grandiosity, obsessive seeking for approval and admiration, and a lack of empathy in regard to others (Caligor, Levy, & Yeomans, 2015). In contrast, the social-personality perspective considers an individual narcissistic when a high degree of charm, extrovert and self-confident is observed (Campbell & Foster, 2007). This latter perspective is considered as "normal" or "healthy" narcissism and is also the perspective that stands central to this study.

The social-personality perspective gained popularity when the Narcissistic Personality Inventory (NPI) by Raskin and Hall (1979) was developed. The NPI is made as a continuous measure of a narcissistic personality (Campbell & Foster, 2007). This enables us to refer to narcissism as a low-to-high distribution, rather than a binary state (Boldero, Bell, & Davies, 2015; Engyel et al., 2020). The NPI has since its introduction received much attention amongst researchers in narcissism studies (Cragun et al., 2020). The measure has been put through several consistency tests that have resulted in multiple variations of the NPI. The original NPI

consisted of 220 items at the time (Raskin & Hall, 1979), but shortly after variations ranging from 54-items NPI up to 13-items NPI arose (Ames, Rose, & Anderson, 2006; Campbell, Goodie, & Foster, 2004; Emmons, 1987; Gentile et al., 2013; Raskin & Terry, 1988). The main criticism on the NPI is the lack of a unified factor structure. Researchers demonstrate different number of factors, such as Raskin and Terry (1988) with seven factors, four factors (Emmons, 1987), and three or even two factors (Kubarych, Deary, & Austin, 2004).

Narcissism is a widely studied construct that has evolved significantly over the years (Cragun, 2018). As a result, researchers differ in how they define the construct. According to Cragun (2018), all of the various definitions as formulated in prior research are similar but adapted to the context of the particular study. For our research, we follow a comparable research conducted by Petrenko et al. (2016) and define narcissistic persons as: *individuals who have multifaceted personality traits that involve a strong glorifying self-image and a constant strive for having positive recognition being reinforced*. Furthermore, narcissism has been the topic in various studies in the field of psychology (Levy, Ellison, & Reynoso, 2011) and management (Cragun et al., 2020). In this research, we add on to the latter and follow the work of i.a., Chatterjee and Hambrick (2007), Patel and Cooper (2014), Petrenko et al. (2016), and Zhu and Chen (2015) which all specifically focus on narcissism at Chief Executive Officers (CEOs). In doing so, we follow research within behavioural studies and focus on narcissism as a personality trait rather than a personality disorder.

2.2 CEO narcissism

A high degree of narcissism is a prerequisite for anyone who hopes to ascend to the top of an organisation (Chatterjee & Hambrick, 2007). Narcissists are inherently great leaders, because they tend to have compelling visions and the ability to attract followers by giving them something to identify with and hold on to (Kets De Vries, 2004; Maccoby, 2000). According to Brunell et al. (2008), a narcissists' yearn for leadership consists the desire for social status and the concomitant dominance of the leadership function.

Research points out that CEO narcissism has both positive and negative effects (M. B. Smith et al., 2018). Benefits relating to narcissists are that they e.g., strive for innovation (Zhang et al., 2017) and are more adept at working in changing or chaotic environments (M. B. Smith et al., 2018). Conversely, one of the disadvantages is that they are focused on personal rewards, exhibit impulsive behaviour (Vazire & Funder, 2006), and exaggerate acquisition pricing (Aktas et al., 2016). Moreover, narcissists are convinced that their choices are the best

(de Vries & Miller, 1985), which results in them making unrealistic estimates of low probabilities of failure and high probabilities of success. This perception has the outcome of a narcissist taking daring and risky decisions (Campbell et al., 2004).

The majority of CEO narcissism research has been explored through the lens of Upper Echelons Theory (UET) of Hambrick and Mason (1984). This perspective emphasizes that the personal characteristics of CEOs shape firms' strategic decision making and behaviour (Kashmiri, Nicol, & Arora, 2017). The UET is based on the concept of bounded rationality (Cyert & March, 1963), which suggests that decision makers are faced with too much complexity to act entirely rational. Executives are forced to make decisions based on the available information and time within the boundaries of their limited cognitive mind. Because of this, decisions are often based on personal experiences, interpretations, and self-perpetuating motives (Hambrick, 2007). Therefore, if one wants to understand the behaviour of firms, we need to examine the biases and tendencies of the most influential executive.

2.3 Acquisitions

Acquisitions are impactful and meaningful strategic choices that are intended to maximize shareholder value (Aalbers, McCarthy, & Heimeriks, 2021). Over the years, numerous studies have been conducted on the relationship of acquisition activity and firm performance (Devers et al., 2020). One of the outcomes of these studies is that acquisitions tend to be rather value destroying than value creating (Haleblian et al., 2009). Reasoned from an economic rational, an organisation acquires to gain market power, stimulate innovation, or reallocate (intangible) resources (Gupta & Roos, 2001; Haleblian et al., 2009). However, it has been recognized that this rational is strongly influenced by the behavioural aspects and motives of the firm's executives (Devers et al., 2020). This could lead to the personal interest of the executives take precedence over that of the firm (Chatterjee & Hambrick, 2007; Malhotra et al., 2018). Therefore, there is a popular stream of research that focuses on the conduct of executives who initiate acquisitions.

This research specifically focuses on the CEO, for the CEO establishes conditions that accelerate or restrict the firm's effectiveness through the decisions they make regarding policies, strategies, and goal setting (Malhotra et al., 2018). Considering this impactful role of the CEO, previous research has examined the effect of different personality characteristics of the CEO on acquisitions. For example, Yim (2013) confirmed that as the CEO ages, the drive for acquisitions decreases. Next, Malhotra et al. (2018) showed that extraverted CEOs are more

likely to undertake acquisitions and have a higher success rate in doing so. Furthermore, Malmendier and Tate (2008) concluded that overconfident CEOs undertake more value-destroying acquisitions. Finally, within the context of this research, multiple studies argued that narcissistic CEOs influence corporate strategy and performance such that it leads to more, larger, and riskier acquisitions (Chatterjee & Hambrick, 2007; 2011; Zhu & Chen, 2015; Aktas et al. 2016).

Despite the presence of studies that focus on CEO narcissism and acquisitions, little is known about this relationship during times of crisis. However, following Trait Activation Theory, we do know that situational contexts affect the personality trait activation and thereby influence the decision making process of the CEO (Judge & Zapata, 2015). Specifically, Patel and Cooper (2014) and Foster et al. (2011) show that a narcissist is maladaptive in their behaviour during a crisis, resulting in ever riskier decision making. Hence, these studies highlight the critical role a narcissistic CEO might hold in a crisis period. With regard to firm performance, CEO narcissism has been examined and was found to be predominantly negative at the onset of a crisis whilst being positive in a post-crisis period (Patel & Cooper, 2014). However, to the best of our knowledge, no research focusses on the role of a narcissistic CEO on specifically acquisition frequency during times of crisis. This might be highly relevant because acquisitions are an ongoing activity. In times of uncertainty, the risky character of acquisitions is more decisive than ever, for in such uncertain times failed acquisitions can be fatal whilst successful acquisitions are pertinent to get through the crisis (Haleblian et al., 2009).

2.4 Times of high uncertainty

In defining times of uncertainty, we follow Coombs (2014, p.3) in their definition on crisis as *“an unpredictable event that threatens important expectancies of stakeholders related to health, safety, environmental and economic issues, and which can seriously impact an organisation’s performance and generate negative outcomes”*. It is argued that, among others, uncertainty, stress, and threats to the organisational goals may provoke a crisis, which makes the decision making process during crises vulnerable (Snoeijers & Poels, 2018). Kim, Shamsuddin, and Lim (2011) indicate that the onset of a crisis period is observable by examining strong declines in the index price. Subsequently, in distinguishing between low and high times of uncertainty, we consider the relative size of this index pricing decline. Moreover, the size, suddenness, deviation in GDP, and the unemployment rates as triggered by the crisis form indicators for the distinction between low and high uncertainty (Altig et al., 2020). For

higher uncertain circumstances may cause greater impact on firm performance and outcomes, it is in particular this type of uncertainty that is of great interest for both academics and practitioners.

Disease outbreaks are mostly unexpected, and the magnitude of their impact cannot be predicted with certainty. The turmoil generated by the Covid-19 pandemic leads to influence stock market fluctuations. As a consequence, the S&P 500 index took a nosedive in March 2020 and dropped 34% compared to one month prior (Altig et al., 2020). The magnitude and suddenness of the pandemic led to an economic shock which resulted in worldwide economic uncertainty. This, in turn, led us to what we now know as the Covid-19 crisis. The Covid-19 crisis hits firms and societies at a fragile moment in which economic and political conditions are particularly unstable. The ensuing policies of mandatory lockdowns make the Covid-19 crisis unprecedented compared to previous crises as e.g., the burst of the Dot Com bubble in 2001 or the Financial Banking crisis of 2008 (Wenzel, Stanske, & Lieberman, 2020). The Covid-19 crisis has led to a historically all-time high unemployment rate (14.7%) and fall in GDP (20.4%) in the US (Altig et al., 2020). Considering the sudden and global impact of the Covid-19 crisis resulting in a 34% S&P 500 index drop, 14.7% unemployment rate (US), and 20.4% GDP drop we thus operationalize this crisis as high times of uncertainty. Because the Covid-19 crisis and its ancillaries are a novel phenomenon, it provides ample opportunities for researchers to embark on a new avenue in management research (Altig et al., 2020; Wenzel et al., 2020).

On that note, by means of this research we introduce the influence of the Covid-19 crisis on CEO narcissism and acquisition frequency to the literature. Because the Covid-19 crisis is still affecting the global economy today, this puts a restriction on the available timespan of our survey. Besides, due to the recentness of the crisis, we are restricted in our research variables. As a consequence, we cannot interpret financial performance of firms since the effect of acquisitions takes time to develop. We therefore turn ourselves to announced acquisitions and consider acquisition frequency to determine the degree of CEO narcissism and acquisition behaviour.

2.5 Hypothesis development and conceptual model

A narcissistic CEO is strongly attracted to dynamic and grandiose activities that lead to a high-risk high-reward strategy (Chatterjee & Hambrick, 2007). Some strategic initiatives are more grandiose and attract more attention than others. Acquisitions, especially large ones, are among

the most eye-catching initiatives a CEO can take (Haspeslagh & Jemison, 1991). This effect is even amplified for CEOs of larger acquiring firms. Because larger firms elicit a more prominent position in the media, they will create an even greater platform for the acquiring CEO (Aabo et al., 2020). Besides, a highly narcissistic CEO will also be convinced to achieve better results than its predecessor (Chatterjee & Hambrick, 2011).

Moreover, narcissists tend to make great first impressions which makes them immediately likeable and effortless in starting new relationships in unfamiliar social settings (Campbell & Foster, 2007). Because they radiate self-assurance and have an outspoken and appealing vision, they know how to convince people to be on their side. This enables them to effortlessly build up a large network. A narcissistic CEO, however, is not looking for a warm and intimate relationship, but only enters it to increase his own status, prestige, and power (Campbell & Foster, 2007; Malhotra et al., 2018). As a result, it is no stranger to a narcissistic CEO to have a network of high-ranking officials. This network is often the most influential group of connections for the CEO. Because this network provides the CEO with rich information about market conditions, industry trends, business practices and private insights into other firms. Such insights directly influence the CEO's decision-making and, consequently, the behaviour of their firm (Malhotra et al., 2018). This does not only enable the CEO to make high-profile acquisitions, but also to engage acquisitions more frequently.

This leads us to our first hypothesis. As confirmed in previous research (see e.g., Chatterjee & Hambrick, 2007; Aktas et al., 2016), we expect CEO narcissism to be positively associated with acquisitions in general. However, although studies suggest that narcissistic CEOs prefer acquisition size over acquisition quantity (Aabo et al., 2020; Ingersoll et al., 2019), it is argued that narcissists are not interested in size per se (Cragun et al., 2020). The issue of acquisition size versus acquisition frequency has only received limited attention in the existing literature. Based on anecdotal evidence, we conclude that e.g., Chatterjee and Hambrick (2007) find a positive association of CEO narcissism and acquisition frequency. In addition, the collateral attention and gains from an acquisition are closely aligned with the self-loving nature of a narcissistic CEO. The issue here is not necessarily the degree of admiration, but the drive to continuously obtain this admiration (Aktas et al., 2016). Hence, we argue that a highly narcissistic CEO will be inclined to initiate acquisitions more often.

Hypothesis 1: Higher degrees of CEO narcissism positively influences the CEO's acquisition frequency.

Preceding theories indicate that uncertain circumstances such as a crisis can stimulate risky behaviour of individuals. We consider the Prospect Theory and the Attribution Theory. The Prospect Theory dates to 1979 when Kahneman and Tversky expressed their critique on a descriptive model of decision making under risk. They posit in their theory that decision makers who are faced with uncertainty consider possible gains with a risk prone attitude and consider possible losses with risk averse behaviour (Kahneman & Tversky, 2013). Based on this, one may argue that uncertainty, such as a crisis, is a stimulus for risk taking behaviour (Stoker, Garretsen, & Soudis, 2019). Drawing on Attribution Theory (Kelley & Michela, 1980), this theory examines how individuals interpret daily causes as either to be internal or external. Based on this theory, the self-serving attribution bias emerged (Riar, Bican, & Fischer, 2021), which proposes that in the event of a successful outcome, the decision maker will entirely devote the success to their own ability and will claim successes personally. On the contrary, in the event of failure will failing be attributed to external factors rather than one's own actions. This bias is seen as an impediment for learning, which could indicate why high-risk high-reward strategies – like acquisitions – (Chatterjee & Hambrick, 2007) keep occurring.

Although these are more generic theories on decision making, in a similar vein is the Extended Agency Model on narcissism of Campbell and Foster (2007). Within this model the authors argue that narcissists are approach oriented. This means that narcissists actively look for rewarding opportunities in their environment while neglecting deviant behaviour for negative outcomes. Driven by their high-approach and low-avoidance motivation, a narcissist develops a myopic focus on rewards. Their inattention to the potential for large losses is expected to lead to an increase in risky decision-making (Sanders & Hambrick, 2007). Foster et al. (2011) conducted a study in which they tracked investors during the Financial Banking Crisis of 2008. They found that individuals with higher narcissistic traits exhibit riskier strategies both before and during the crisis. Additionally, Patel and Cooper (2014) argue that narcissistic CEOs take greater risks during crisis because they have less fear of being punished or fired. Wan and Yiu (2009), for one, specifically mention that acquisitions during a crisis are positively related to firm performance. They posit that a crisis is the designated occasion for using slack resources to enrich the corporate portfolio.

Moreover, narcissists are attracted to gain attention and admiration and circumstances that offer them this will likely encourage narcissistic behaviour. Building on Trait Activation Theory, we consider circumstances that influence CEO behaviour. Studies in this area look into triggers and suppressors that might stimulate or mitigate narcissistic behaviour. It is presumed

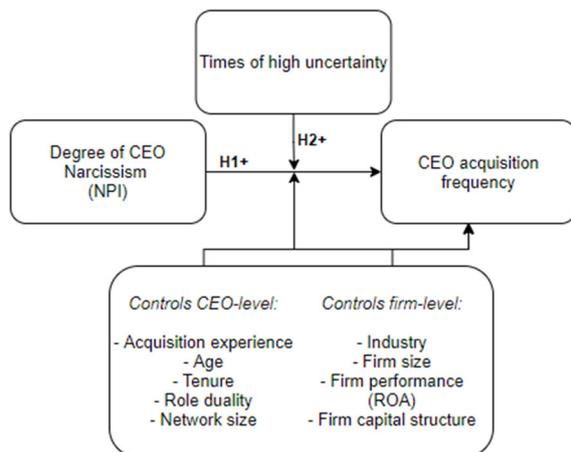
that, e.g., governance structures by the board of directors mitigate narcissistic behaviour (Buyl, Boone, & Wade, 2019). However, this effect is negligible whenever the CEO is also the chairman of the board. The power and prestige from this dual role may reinforce narcissistic behaviour (Cragun et al., 2020). Furthermore, Petrenko et al. (2016) argue that narcissistic CEOs are more involved in Corporate Social Responsibility because it generates attention and reinforces their image.

Reasoning from the self-serving attribution bias, it is expected that narcissistic CEOs will always go big when uncertainty (i.e., crisis) is high. Because if their decisions turn out in failure, it will be claimed that it is due to the crisis. If their decisions succeed, all the praise will be devoted to personal excellence. This raises the assumption that narcissistic CEOs initiate more acquisitions during crisis, with the potential for improved post-crisis outcomes (Patel & Cooper, 2014). We therefore expect that high uncertainty will be a trigger for narcissistic behaviour, leading to the following hypothesis:

H2: Times of high uncertainty positively influences the relationship of CEO narcissism on CEO acquisition frequency.

Based on the literature review, the following conceptual model includes both the hypothesis and control variables.

Figure 1. Conceptual model



3. Data and Methods

This research is part of and contributes to the PhD research of Jonas Röttger. Jonas' research focuses on the behavioural factors that influence Mergers & Acquisitions (Röttger, Aalbers, & Heimeriks, 2021). Our research contributes to Jonas's by observing the behaviours of S&P 500

CEOs through a novel video analysis approach. The purpose is to demonstrate to what extent CEO narcissism that affects the CEO's acquisition frequency. We then moderate this relationship by an external environmental factor, Covid-19 crisis, to examine whether high uncertainty stimulates or suppresses narcissistic acquisition behaviour.

3.1 Method

We captured CEO narcissism by employing a thin sliced video-metric approach (Benjamin & Shapiro, 2009; Borkenau et al., 2004) on short video clips of S&P 500 CEOs. This approach has been effectively used in previous organisational studies (Gupta & Misangyi, 2018; Petrenko et al., 2016) and has shown to offer numerous benefits. First of all, it is known that personality data on executives is difficult to collect. CEOs are unwilling to respond to surveys about psychological traits, especially traits such as narcissism (Patel & Cooper, 2014; Zhu & Chen, 2015). By means of this video approach, we allow ourselves to capture the characteristics of the CEOs unobtrusively and, in addition, avoiding social desirability answers and reactivity biases (Shadish, Cook, & Campbell, 2002). Within this approach, the video clips will be rated by third-party observers which will be recruited via Amazon Mechanical Turk (AMT) and within our own network of university peers. In addition, we had two professional psychologist peers rate a subset of 10 CEOs to control for the reliability of the measure. The second benefit is that observer reviewed personality traits often have better validity than self-reported measures (Oh, Wang, & Mount, 2011). And final, thirdly, it allows us to use the NPI measurement scale that has comprehensively been tested and validated (Petrenko et al., 2016; Zhu & Chen, 2015).

The video clips contain fragments of interviews with CEOs which are retrieved through publicly accessible sources, e.g., YouTube. The original recordings are edited to exclude all distracting and other identifying information such as logo's, company name or banners. In this process, the sections in which the CEO's face was not the centre focus of the camera are excluded as well. This is to ensure that the audience's and interviewer's reactions will not bias the ratings (Petrenko et al., 2016). Next, the video clips are constructed to a length of approximately 2 minutes. Video clips that are substantially shorter than two minutes are detrimental to the intraclass correlation (ICC) of the measure (Petrenko et al., 2016).

The survey is constructed in Qualtrics where every video contains an adapted 16-item version of the NPI (NPI-16; appendix A) with a 5-points Likert scale ranging from "Strongly disagree" to "Strongly agree". This version of the NPI-16 is provided by Gupta and Misangyi

(2018), who used the same measure in their earlier research in 2018. Furthermore, to account for attentive watching of the respondents, we included a multiple-choice question after each video. This question concerned a simple two-choice option about the content of the video. The purpose of this question is solely to influence the respondent's attentiveness. The answers will not influence the survey flow and they will not be used for analysis purposes.

Through this method, we aim to formulate an answer to the main question: *“To what extent does CEO narcissism affect CEO acquisition frequency and how does the high uncertainty impact this relationship?”*

3.2 Sample and data collection

We started our data collection by using the Zephyr database to collect data on all announced acquisitions on the S&P 500 that were undertaken in 2 years' time from 01/02/2019 through 31/03/2021. Because we moderate for the Covid-19 crisis, we distinct two timeframes i.e., pre-Covid19 (t-1; 01/02/2019 – 29/02/2020) and during-Covid19 (t+1; 01/03/2020 – 31/03/2021). This resulted in 848 announced acquisitions. Next, we follow the research of Petrenko et al. (2016) and excluded companies in the sectors banking, insurance, and utilities because these highly regulatory environments limit the discretion of the respective CEOs (McGahan & Porter, 1997). This resulted in 454 acquisitions over 196 unique acquirers. Subsequently, we took this output and uploaded all unique acquirers into the WRDS BoardEx database to identify the CEOs. Since we want to measure the difference in behaviour between t-1 and t+1, we crosschecked for CEOs who were active during both timeslots. Furthermore, we excluded CEOs that were temporally appointed (e.g., interim, acting). This is because the effects of a temporary CEO on firm behaviour are different from that of those who held a permanent position (Ballinger & Marcel, 2010). Lastly, as required for the video analysis, we excluded 24 CEOs of which were no videos available through public sources. This concluded our final sample at 273 announced acquisitions and 107 CEOs. Of these 107 CEOs are 90% US nationals and the remaining 10% consist of 13 other different nationalities. Furthermore are 95% male, 5% female with a mean age of 59 in a range of 46 – 75.

Finally, due to a lack of financial information within Zephyr, we augmented the dataset with the required financials by making use of the Eikon database.

To determine the degree of CEO narcissism, respondents were recruited through AMT and within our own network of university peers. All respondents received clear instructions prior to the survey (appendix B) and were kept blind to the hypotheses of the research. To avoid

further bias, the entire survey was generalized to "executives" and "person" rather than naming the job title "CEO" or the director's name. Upon participating in the survey, each reviewer was randomly assigned 5 CEOs to review. A total of 160 respondents completed the survey, collecting between the 5 and 10 ratings for each CEO. We chose to use a combination of our own peers and AMT respondents because the use of AMT is only possible for a fee, and we had a limited budget at our disposal. Nevertheless, the majority of the respondents were from AMT. We chose this platform because it provides fast and reliable results. Also, this platform offers the possibility (for a fee) to predetermine the socio-demographics of respondents. We set this criterium to US bachelor graduates. With this, we sought to include age (average 24.1 year; OECD, n.d.) and relevant work experience and knowledge in one criterion. In addition, AMT respondents received a monetary reward for their participation in the survey.

It is being argued that making use of convenience sampling such as AMT requires extra caution for threats to the validity of the research (Cheung et al., 2017). Therefore, we have taken precautions into consideration. First, we inserted multiple choice questions after each video to account for subject inattentiveness. Second, the accounts of the respondents were registered upon entry to avoid repeated participation. Third, by pre-screening on socio-demographics we accounted for participation of relevant respondents. Fourth, we incorporated response quotas into the survey for an even distribution amongst the CEOs and automatically excluded the said CEO from the survey once the quota was reached. Fifth, the respondents received a random generated code upon completion of the survey. This code had to be submitted at AMT as a sign of completion and right to payment. Sixth, we set a three day delay for the payment in order to manually validate the responses and account for response bias. Responses that were completed under 15 minutes were flagged for extra reviewing. We were able to validate the responses through checking for correct answers to the attentiveness questions. As a result, 16 responses did not pass the quality check and were discarded. By discarding the response, the respondent's payment is being denied and the quota of the respective CEO decremented.

Dependent variable

CEO Acquisition Frequency. To capture the acquisition frequency of the CEOs, we used a similar measure as applied in prior acquisition research by e.g., Tang, Mack, and Chen (2018); Sanders (2001); Gamache et al. (2015), and Malhotra et al. (2018). They used the total sum of the acquisitions undertaken by the CEO in a given year. In order to do is, we collected all announced acquisitions within our timeframe for all the CEOs in our sample and computed

a count function of all acquisitions. The acquisition frequency of the CEO captures a distinct and important part of the acquisition behaviour of the firm. Herewith, a CEO can have a significant influence on the firm's strategy and allocation of resources. This can be through either one a large acquisition or several smaller acquisitions (Gamache et al., 2015).

Independent variable

Degree of CEO Narcissism. To assess CEO narcissism, we followed a similar approach as Petrenko et al. (2016). We used a thin-sliced video metric approach with a third-party adapted version of the NPI. We used a NPI version based on the study of Gupta and Misangyi (2018), namely the NPI-16 as originally developed by Ames et al. (2006). This version is a derivative of the widely used NPI-40 of Raskin and Terry (1988). The NPI-16 is recognized as a valid and brief measurement for narcissism that can be used for non-clinical studies that do not allow the use of longer records (Ames et al., 2006). The 16 items in the NPI are all formulated in the same manner, meaning that we can interpret a score of 1 as low narcissistic and a score of 5 as high narcissistic. This enabled us to develop our narcissism score as such that we calculated a simple mean by averaging the results of the NPI-16 for each CEO (Chatterjee & Hambrick, 2007).

To check for the reliability of our measures, we calculated three ICC scores. Firstly, for the total set of respondents (ICC = .914, $p < .001$; $\alpha = .917$). Secondly, for the subset of psychologist (ICC = .944, $p < .001$; $\alpha = .948$). Lastly, an overall ICC by including the subset to the total set (ICC = .928, $p < .001$; $\alpha = .931$). Since all ICC scores are above the threshold of .7 (Hair et al., 2019), we conclude that the reliability of the measure is excellent. Hence, interrater reliability within our survey was high.

Moderating variable

Times of high uncertainty. As previously mentioned, we consider the Covid-19 crisis as high uncertainty. The crisis is new and ever-present which makes published management research on it of limited availability. For our study, we used Covid-19 crisis as a moderator to check whether high uncertainty influences the relationship of CEO narcissism on CEO acquisition frequency. For this purpose, we distinguished between two time periods, pre Covid-19 crisis and during Covid-19 crisis. We followed the research of Kim et al. (2011) to determine the time periods. Kim et al. (2011) indicated that the onset of a crisis period is observable by examining strong declines in the index price. Using that same reasoning, we indicated that in March 2020 the S&P 500 index took a nosedive by falling 34% (Altig et al., 2020). For this

reason, we set March 2020 as t_0 , the pre-Covid19 crisis is $t-1$ where we look back 1 year, and the crisis itself ($t+1$) is 1 year further until March 2021.

Control variables

We controlled for CEO- and firm-level potential confounding factors.

CEO control variables

Our CEO control variables are acquisition experience, age, tenure, role duality and network size.

More experience in conducting acquisitions is positively related to the probability of subsequent acquisitions (Devers et al., 2020; Haleblian et al., 2009; Schijven & Hitt, 2012). Therefore, we controlled for *CEO acquisition experience*. This variable is calculated as a count of all announced acquisitions in the career of the said CEO. The propensity to undertake risky strategies may decrease with age (Patel & Cooper, 2014; Petrenko et al., 2016; Yim, 2013), therefore we controlled for *CEO age* as measured in years. CEOs with shorter tenure would be more inclined to take risks than CEOs with long tenure (Patel & Cooper, 2014; Petrenko et al., 2016; Sanders, 2001), therefore we controlled for *CEO tenure* measured in years. Role duality causes an increase in CEO power which can lead to aggressive investments or self-serving strategic initiatives (Patel & Cooper, 2014; Zhu & Chen, 2015). We therefore controlled for *CEO role duality* set as a binary variable coded as 1 when the CEO has additional roles as Chairman or President and a 0 for solely the position of CEO (Petrenko et al., 2016). CEOs with greater involvement with third parties serves as a driver of acquisition behaviour (Haleblian et al., 2009; Malhotra et al., 2018). Therefore, we controlled for *network size* as the number of overlaps through employment, education, and other activities.

Firm control variables

Our firm control variables are type of industry, firm size, firm performance, and firm capital structure of the acquiring firm.

We accounted for the possibility that certain industries are influenced differently within our set timeframe (Petrenko et al., 2016). Therefore, we controlled for *type of industry* by including industry dummy variables in our model. Larger firms tend to have more financial resources (Kashmiri et al., 2017) and CEOs of larger firms are more likely to be seen as narcissistic (Zhang et al., 2017). We therefore controlled for *firm size* measured as the total number of employees as reported at t_0 (Cragun, 2018; Zhu & Chen, 2015). Due to a high skewness of this variable, we computed a logarithm on the number of employees. The financial performance is a representation of the potential acquiring power of CEOs, as it requires resources to acquire

other firms (Sanders, 2001). We therefore controlled for *firm performance* measured as the Return on Assets (ROA) and *capital structure* measured as the debt-to-equity ratio of the firm (Schijven & Hitt, 2012; Zhu & Chen, 2015).

3.3 Research ethics

Within our research, we hold a responsibility to conform with ethical codes and to maintain research integrity. This indicates that we perform our research with transparency, independence, responsibility, and honesty (VSNU, 2018). In conducting our research, we declare that we bear full responsibility and independence for the research and the results. We thereby comply to transparency by providing clarity in our methodology and results as such that third parties will be able to check for the reliability of our research. Furthermore, in terms of honesty, we will not manipulate or misrepresent our data results and use citations according to the 6th edition of APA (American Psychological Association, 2019).

Concerning the respondents of the survey, we followed the guidelines of informed consent (D. Smith, 2003) and provided them with clear instructions (appendix B) upon entering in the survey. We, for example, mentioned that their participation was completely anonymous and voluntary and that their results will be treated with great confidentiality with the sole purpose for the use this research.

4. Data analysis and results

Descriptives of our data as well as bivariate Pearson correlations are provided in Table 1. To test our hypotheses, we performed ordinary least squares (OLS) regression analyses. Before we interpret our results, we assessed the variance inflation factor (VIF) to check for multicollinearity. The highest VIF value for a single variable in our regression models is 1.67. Since neither of the VIF values of all our variables are above the threshold of 10 (Hair et al., 2019), we conclude that multicollinearity is not of concern.

To test our first hypothesis, we used our complete dataset starting at 01-02-2019 up until 31-03-2021. In table 2, two linear regression models are presented. Model 1 represents the baseline model which only includes the control variables, while model 2 includes our explanatory variable (CEO narcissism; NPI). From model 2 we conclude that CEO narcissism poses no influence on acquisition frequency ($\beta = -.158, p = .346$), hence there is no support for hypothesis 1. However, we find a significant positive effect of the control variables acquisition

experience and network size in both models, respectively: model 1 ($\beta = 0.16, p < 0.01$ and $\beta = .000, p < 0.01$) and model 2 ($\beta = 0.16, p < 0.01$ and $\beta = .000, p < 0.05$).

For our second hypothesis, concerning the impact of high uncertainty as a moderator on our main effect, we split our dataset into two timeframes (t-1: pre-crisis, t+1: during crisis). Therefore, in order to test this hypothesis, we performed two OLS regression analyses on these split datasets. In table 3, the regression models of both timeframes are presented. Models 3 and 5 are the baseline models that only include the control variables for t-1 and t+1, while models 2 (t-1) and 4 (t+1) include our explanatory variable. We conclude that in the pre-crisis period (t-1), neither the control variables nor the explanatory variable of CEO narcissism (model 4, $\beta = .055, p = .713$) are significant. Concerning the period during crisis, models 5 and 6, we conclude once more that CEO narcissism has no significant effect on acquisition frequency (model 6, $\beta = -.229, p = .101$). However, contrary to models 3 and 4 yet similar to models 1 and 2, acquisition experience and network size display a positive significant effect on acquisition frequency ($\beta = 0.13, p < 0.01$ and $\beta = 8.507E-5, p < 0.05$). Concluding, we found no support for hypothesis 2, for CEO narcissism poses no effect on acquisition frequency both pre- and during times of high uncertainty.

5. Conclusion and discussion

5.1 Conclusion

As the Covid-19 crisis raises new concerns about how firms strategically navigate through high uncertain circumstances (Hitt, Arregle, et al., 2021), our research builds on Upper Echelons Theory and Trait Activation Theory and extends behavioural research on CEO narcissism by answering the question: *to what extent does CEO narcissism affect CEO acquisition frequency and how does high uncertainty impact this relationship?* Based on our results, we conclude that CEO narcissism does not affect CEO acquisition frequency and that the high uncertainty imposes no significant influence on this relationship. Since these results are contrary to existing research, we evaluate alternative explanations.

As we draw on our hypotheses, we expected that CEO narcissism positively influences CEO acquisition frequency and that times of high uncertainty enhances this behaviour. Prior research has identified that a high degree of CEO narcissism is a prelude for bold and daring decision making (Chatterjee & Hambrick, 2007; Zhu & Chen, 2015) and for frequent and exaggerated acquisitions (Aabo et al., 2020; Aktas et al., 2016). These results are supported by the

Table 1. Descriptive statistics and correlations

Variables	Mean	SD.	1	2	3	5	5	6	7	8
1 NPI	3.64	.39								
2 Acquisition frequency	11.55	15.03	.074							
3 CEO age	58.93	5.47	.206*	.060						
4 CEO tenure	5.07	4.49	.041	.384**	.274**					
5 CEO network size	2569.25	1689.02	-.119	.238*	-.013	.085				
6 CEO role duality	.80	.399	.160	.015	.214*	-.315	-.135			
7 Firm size	4.42	.63	.188	.274**	-.034	-.004	.079	-.023		
8 Firm Performance (ROA)	9.18	10.54	-.078	.095	-.042	.091	.061	.008	-.022	
9 Firm capital structure	610.57	4105.87	-.076	-.029	-.056	-.094	-.009	.018	-.019	.253**

*p < 0.05, **p < 0.01, N = 107

Table 2. Effects of CEO narcissism on acquisition frequency (H1)

Variables	Hypothesis 1			
	Model 1		Model 2	
Constant	-0.813	(.338)	1.178	(.207)
Acquisition experience	.016**	(.002)	.016**	(.001)
Age	-.019	(.124)	-.016	(.197)
Tenure	.022	(.149)	0.22	(.161)
Network size	.000**	(.009)	.000*	(.011)
Role duality	.152	(.348)	.169	(.301)
Firm size (log of employees)	.083	(.501)	.096	(.441)
Firm performance (ROA)	-.005	(.441)	-.006	(.403)
Firm capital structure	-3.389E-7	(.983)	-6.462E-7	(.968)
Industries:				
Wholesale	-.305	(.300)	-.284	(.335)
Services	.240	(.277)	.221	(.318)
Mining	-.399	(.336)	-.425	(.307)
Retail	-.453	(.058)	-.464	(.053)
Finance	-.719	(.056)	-.777	(.042)
Transportation	.085	(.799)	.084	(.800)
NPI			-.158	(.346)
Observations		107		107

*p < 0.05, **p < 0.01

Table 3. Effect of CEO narcissism on acquisition frequency in times of high uncertainty (H2)

Variable	Pre-crisis (T-1)				During crisis (T+1)			
	Model 3		Model 4		Model 5		Model 6	
Constant	.556	(.450)	.431	(.596)	.821	(.251)	1.352	(.084)
Acquisition experience	.008	(.058)	.008	(.062)	.013*	(.002)	.013**	(.001)
Age	-.015	(.175)	-.016	(.162)	-.008	(.455)	-.004	(.716)
Tenure	.020	(.152)	.020	(.150)	-.007	(.606)	-.008	(.554)
Network size	2.594E-5	(.444)	2.693E-5	(.430)	8.887E-5**	(.008)	8.507E-5*	(.010)
Role duality	.006	(.965)	.002	(.989)	.035	(.796)	.060	(.660)
Firm size (log of employees)	.180	(.093)	.175	(.105)	-.035	(.733)	-.017	(.868)
Firm performance (ROA)	.001	(.882)	.002	(.837)	.001	(.833)	.001	(.926)
Firm capital structure	2.852E-5	(.225)	2.882E-5	(.234)	-6.670E-7	(.960)	-1.120E-6	(.933)
Industries:								
Wholesale	-.319	(.214)	-.326	(.208)	-.150	(.545)	-.119	(.627)
Services	.169	(.355)	.176	(.340)	-.022	(.904)	-.049	(.789)
Mining	-.314	(.351)	-.306	(.368)	.088	(.801)	.051	(.883)
Retail	-.337	(.107)	-.333	(.114)	-.063	(.751)	-.079	(.688)
Finance	-.004	(.989)	.018	(.957)	-.518	(.101)	-.603	(.058)
Transportation	.024	(.935)	.027	(.927)	.112	(.689)	.111	(.688)
NPI			.055	(.713)			-.229	(.101)
Observations		107		107		107		107

*p < 0.05, **p < 0.01

assumption that a narcissist is continuously seeking to satisfy his narcissistic supply (Campbell & Foster, 2007). As a result, a narcissist is prone to show risky behaviour that receives attention. Thereby, a narcissist is also a soloist; all initiatives taken are for the cause of personal gain. Due to severe forms of self-glorification, a narcissist is convinced that he achieves better results than others (Chatterjee & Hambrick, 2011). Furthermore, a narcissist estimates his chances of winning higher than his chances of failing (Sanders & Hambrick, 2007). In the event of failure, a narcissist will blame this on exogenous factors instead of reflecting on his own actions (Riar et al., 2021). Based on this reasoning, we expected that narcissistic behaviour is not mitigated by economic uncertainty but enhanced by such circumstances. However, as it turns out, our research reveals that this is not the case.

We critically review our research design and compare it to similar studies on which we based our expectations. Our first hypothesis predicted that CEO narcissism positively affects CEO acquisition frequency, which was not supported by our data. We propose several reasons for the absence of this effect. Firstly, our timeframe (2019 - 2021) is restricted by the Covid-19 crisis. This makes our timeframe considerably smaller than e.g., Aabo et al. (2020); 2007 – 2016, Zhu and Chen (2015); 1998 – 2006, or Gupta and Misangyi (2018); 2001 – 2008. As a result, there are only relatively small deviations between the CEO's acquisition frequencies, hence it becomes increasingly difficult to find significant differences. Secondly, we consider our measurement method. We used a third-party adapted version of the NPI-16 (Gupta & Misangyi, 2018). The original NPI-16 is a forced two-choice option between a narcissistic and non-narcissistic response, for example: *"I know that I am good because everybody keeps telling me so"* versus *"When people compliment me, I sometimes get embarrassed"*. This measure is approved and showed great internal and discriminant validity (Ames et al., 2006). However, in our third-party adapted measurement, we used 5 points Likert-scale items instead of the binary items. Although it is argued that the NPI as rating items provide better results than the binary NPI (Boldero et al., 2015), we may be cautious to the internal and discriminant validity of our measure, for this has not been validated for the NPI-16 in prior research. Thirdly, our sample was gathered via Amazon Mechanical Turk, which is a form of convenience sampling. This sampling method has the benefit of quickly achieving results for large volume samples. The downside, however, is that quantity does not necessarily guarantees quality. We pre-selected respondents based on one criterium (US Bachelor graduates), which does not ensure that the respondents are able to correctly interpret the psychological constructs of our survey, let alone carry a collective understanding. In contrast, in the research of Petrenko et al. (2016) and Gupta

and Misangyi (2018), all observers were trained over several sessions to reach common understanding on the NPI constructs prior to participating in the survey. The possibility of misconceptions regarding the interpretation of the NPI constructs in our research may have affected the validity of our measurement. This in turn provides a plausible explanation for the absence of our main effect of CEO narcissism on CEO acquisition frequency. Besides, this absence is in line with the recent meta-analysis of Cragun et al. (2020). They argue that there is a lack of statistical significance for the relationship between CEO narcissism on acquisitions. Conversely, there is abundant research that do claim there is such an effect. This contradiction reopens the discussion whether, and more importantly under which conditions, CEO narcissism does have a significant influence on acquisitions.

Our second hypothesis, grounded in prior research (Foster et al., 2011; Patel & Cooper, 2014), Prospect Theory and Attribution Theory, prescribed the expected positive influence of high uncertainty on the relationship of CEO narcissism on CEO acquisition frequency. Once more, our data did not find any support for this hypothesis. Explanations for this are rather similar to the previously stated explanations for the absence of support for hypothesis one, as the timeframe, measurement method and sampling strategy also apply here. Furthermore, another explanation can be found in the nature of the crisis subject to our study. We expected that narcissistic CEOs should be encouraged into more risky decision making during times of high uncertainty. However, despite us recognizing the high uncertainty as caused by the Covid-19 crisis, its severity may have been higher than we anticipated. The disruption caused by this ongoing pandemic forced firms to rethink their strategies and made survival their number one priority. As a consequence, financial resources are used for short-term firm survival and long-range planning is pushed to the background (Hitt, Arregle, et al., 2021). This priority shift is explained by the threat rigidity hypothesis (Staw, Sandelands, & Dutton, 1981). According to this hypothesis, firms respond to external uncertainty (like the Covid-19 crisis) with actions that reflect rigidity which puts a greater emphasize on internal efficiency (Stoker et al., 2019). As a result, the firm's management is facing inwards and reconsidering current policies and procedures (Hitt, Arregle, et al., 2021). Consequently, firms are more likely to constrict control which translates into collective decision making at the top of the organisation (Staw et al., 1981). One could therefore argue that this leads to a restriction on the excessive initiatives and daring behaviour of the narcissistic CEO. Concluding, the extreme high uncertainty relating to the Covid-19 crisis provides an alternative explanation for the absence of support on our second hypothesis. As such, we even argue that due to this rigid response of the firms, times of extreme

high uncertainty, such as the Covid-19 crisis, mitigate instead of enhancing narcissistic behaviour.

5.2 Theoretical implications

Within this research, we built on Upper Echelons Theory and addressed CEO narcissism from a behavioural perspective. In doing so, we accessed Trait Activation Theory in order to capture the effect of high uncertainty on CEO narcissism. Our findings are consistent with the statement of Cragun et al. (2020) in which we answered their call by examining a circumstance that may or may not manifest narcissistic CEO behaviour.

Whilst prior research poses that a narcissist is maladaptive in their behaviour during a crisis (Foster et al., 2011; Patel & Cooper, 2014) our research suggests otherwise. The Covid-19 crisis hits firms and societies at a fragile moment in which economic and political conditions are particularly unstable (Wenzel et al., 2020). We find that the global policies of mandatory lockdowns led firms to react rigidly and thereby limiting the scope for narcissistic behaviour of their CEOs. Hence, we provide evidence that times of high uncertainty, of which the Covid-19 crisis is an example, mitigates narcissistic behaviour.

Moreover, we extended the framework of threat-rigidity literature (Staw et al., 1981) by showing how large a threat highly uncertain circumstances impose on managerial behaviour of firms. Concluding, despite the expectation that CEO narcissism was stimulated by highly uncertain circumstances, the magnitude of this type of uncertainty has such an impact that it transcends the individual level and triggers an organisational response to prevail. We hereby contribute to behavioural research into CEO narcissism by introducing the Covid-19 crisis and its ancillaries as a contextual factor. Furthermore, we enrich acquisition literature by adding a mitigating effect of the high uncertainty on the relationship of CEO narcissism on acquisition frequency.

5.3 Managerial implications

Our research reveals that, in both the general observation and the observation during times of high uncertainty, the acquisition frequency of CEOs is not influenced by their narcissistic traits, but by the CEO's acquisition experience and size of the CEO's network. With this finding, we join Aabo et al. (2020) in arguing that narcissistic CEOs are not necessarily interested in acquisition quantity in order to fulfil their narcissistic supply. Our results find support in the threat-rigidity hypothesis, for this hypothesis proposes that decision makers rely on practices they are familiar with when they are faced with high threat circumstance (Stoker et al., 2019).

Hence, a CEO that has more experience in acquisitions is more likely to initiate acquisitions in highly uncertain times. This implies that in times of crisis, when threat is high, the CEO's acquisition experience dominates over his personality traits. We therefore argue that high uncertainty as a contextual factor has a mitigating effect on narcissistic traits.

Moreover, as our results reveal, the greater the size of the CEO's network the more likely the CEO will initiate acquisitions. The CEO's network provides rich information about market conditions, industry trends, business practices and private insights into other firms (Malhotra et al., 2018). Thus, we conclude that the size of a CEO's network leads to insights that stimulates the CEO to engage in acquisitions.

Since there is the assumption that acquisitions tend to be value-destroying rather than value generating (Haleblian et al., 2009) and that CEO narcissism is related to the frequency of acquisitions undertaken, one could expect that CEO narcissism is a prelude for value-destroying acquisitions. However, we reveal that the degree of CEO narcissism does not affect acquisition frequency nor in times of high as in low uncertainty. Hence, we argue that when aiming for firm survival in times of high uncertainty, CEO narcissism does not necessarily have to be avoided by the stakeholders.

5.4 Limitations and future research

Our research is not without its limitations. First, our hypotheses are not supported. Therefore, we had to find alternative explanations elsewhere in literature which forced us to go beyond our established scope and review other theories. Consequently, we could only make sense of our research results by means of backward deduction. To prove these alternative explanations, we recommend replicating our research with a different research design using, for example, firm rigidity as a moderating variable, for more rigidity within firms should temper narcissistic behaviour.

Second, we focused on acquisition frequency to express a facet of CEO acquisition behaviour. Acquisition frequency is considered to be an indicator of CEO narcissism (Gamache et al., 2015), but it is not comprehensive. Preceding research often examined acquisition size and performance to capture CEO narcissism more thoroughly (Aabo et al., 2020; Chatterjee & Hambrick, 2007; Malhotra et al., 2018). However, as we are bound to the Covid-19 crisis, we were limited in the availability of data. For the Covid-19 crisis is still effective today, not all data is yet accessible, nor observable. As a result, we were not able to measure acquisition size and acquisition performance in our research. We therefore suggest reproducing our research at

a later stage in order to capture the effect of such specific highly uncertain circumstances on other aspects of CEO acquisition behaviour.

In addition to the previous limitation, the timespan of the Covid-19 crisis also holds implications with regard to the size of our research. To maintain two equal time periods for comparison (no Covid-19 crisis vs. Covid-19 crisis) a timeframe of two years is, as of today, the maximum possible length. As a consequence, the deviations between the CEO's acquisition frequencies are relatively small, which makes it increasingly challenging to find significant discrepancies. Thus, future research could replicate our research with an extended timeframe to achieve greater statistical coverage.

Third, with regard to our method, we used AMT as our primary sampling strategy. This form of convenience sampling does not guarantee competent respondents. Although we took several precautions to safeguard invalid survey respondents, we were unable to control for a universal understanding of the constructs as the respondents were not previously trained. Hence, our research could be replicated using trained respondents to confirm our results.

Fourth, against all our expectations, our results show that narcissists are tempered during times of high uncertainty. This implies that times of threat and high uncertainty mitigate rather than reinforce narcissistic behaviour. Our research thus adds to the body of knowledge on narcissistic behaviour in that we have found a circumstance that mitigates this behaviour. However, what remains to be examined are the factors or circumstances that do stimulate narcissistic behaviour. We therefore advocate future research to examine the impact of several other factors or circumstances (e.g., contextual factors, board compositions, governance structures) on narcissistic CEO behaviour to find out which factors or circumstances serve as stimulators for his behaviour.

Fifth, we previously stated that the CEO is the most influential executive within a firm (Hambrick, 2007). Therefore, although we found that CEO narcissism poses no effect on a firms' acquisition frequency, the narcissistic personality of the CEO may well influence other aspects within a firm. For example, Zhang et al. (2017) previously found CEO narcissism to cause more innovations, yet we are unsure whether this also holds during times of high uncertainty. Hence, we call for further research into the effects of CEO narcissism on internal firm practices in times of high uncertainty.

Finally, within our research we focussed on the narcissistic personality traits of the CEO and found that this does not impact acquisition frequency. However, for acquisitions remain

high risk initiatives - especially during a crisis - (Haleblian et al., 2009), firms would benefit from research into which type of CEO personality trait does in fact impact acquisition frequency. Hence, we suggest future research to examine the relationship between other CEO personality traits and acquisition frequency, both during a crisis as well as without crisis. Insights herein would allow us to make more comprehensive recommendations to firms about which type of CEO personality trait may benefit or harm their firm - during a crisis -.

Appendix

Appendix A. Adapted NPI-16 measure

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

(Gupta & Misangyi, 2018; Raskin & Terry, 1988)

Appendix B. Survey instructions

Dear respondent,

First of all, I would like to thank you for participating in this survey. My name is Max Veenendaal, Master student Business Administration at the Radboud University. For my thesis, I investigate to what extent the personality of executives influences firm behaviour. To do this, I designed this survey by making use of a video-metric approach.

For this purpose, the survey consists of different interview videos and statements to be rated. You will be asked to rate a total of 5 videos in order to complete the survey. The videos vary in length from 1 minute to 2.5 minutes. Please watch the video carefully and in its entirety before rating the statements. After you have watched the video, a button will appear at the bottom of the page which will let you proceed. There is one statement stencil for each video. The statement stencil always applies to your last viewed video.

There is no time limit for completing this survey.

Participation in this survey is entirely voluntary and you may withdraw at any time. The focus of this study is to get your perceptions regarding the individuals in the videos. Participation is completely anonymous, there is no alternative interest in your responses, and these will not be evaluated in any way. The answers will only be used for this study and their safety will be ensured with great care.

By entering the survey, you agree to the use of your anonymous answers for this research.

I wish you good luck in completing the survey and thank you again for your participation. It is greatly appreciated!

Contact info:

Max.veenendaal@student.ru.nl

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