ISSN 1808-057X
DOI: 10.1590/1808-057x202009800

ORIGINAL ARTICLE

CEO narcissism and corporate tax avoidance*,**

Victor Cortez Araújo[1]
https://orcid.org/0000-0003-4669-7504
Email: victorcortez10@gmail.com

Alan Diógenes Góis[2,†]
https://orcid.org/0000-0003-3534-6557
† *in memoriam*

Márcia Martins Mendes De Luca[1]
https://orcid.org/0000-0002-9995-5637
Email: marciadeluca@ufc.br

Gerlando Augusto Sampaio Franco de Lima[3]
https://orcid.org/0000-0002-2414-2543
Email: gerlando@illinois.edu

[1] Universidade Federal do Ceará, Faculdade de Economia, Administração, Atuária e Contabilidade, Departamento de Contabilidade, Fortaleza, CE, Brazil
[2] Faculdade Fipecafi, São Paulo, SP, Brazil
[3] University of Illinois at Urbana-Champaign, College of Business, Department of Accountancy, Champaign, IL, United States of America

Received on 03.30.2019 – Desk acceptance on 04.17.2019 – 4th version approved on 03.04.2020
Editor-in-Chief: Fábio Frezatti
Associate Editor: Alexandre de Pádua Carrieri

ABSTRACT

Narcissism (NARC) in senior executives has a perceptible impact on corporate decision-making and strategies and is often associated with unethical and opportunistic behaviors, including tax avoidance (TA). In this study, we therefore evaluated the association between chief executive officer (CEO) NARC and TA in Brazilian public firms. By focusing on Brazil, an emerging economy regulated by code law, our investigation makes an important contribution to the accounting literature on TA. Most studies examining the relation between corporate TA and CEO personality profile have been conducted in common law countries. According to the literature, TA behaviors are influenced by tax system specifics. In addition, the home country's level of economic development should be taken into account when quantifying corporate TA. These observations, and the lack of previous investigation focusing on Brazil, ratify the relevance of the study. Our study also provides tax authorities, auditors, and investors with tools to identify narcissistic behaviors predictive of corporate TA, which may demand precautionary measures on part of business partners. The sample consisted of 68 Brazilian public firms (382 observations), covering the period 2010-2017, and a robust regression model with panel data was used. TA and NARC were measured with secondary data according to the literature. Our findings show a positive correlation between CEO NARC and TA. Executives with this personality trait come across as bold or aggressive, thus more prone to adopt TA strategies, as confirmed in the present study. The study contributes to the literature by demonstrating how a personality disorder like NARC affects corporate tax policies, with potential damage to corporate reputation.

Keywords: narcissism, tax avoidance, chief executive officer (CEO), corporate reputation, personality disorder.

Correspondence address

Victor Cortez Araújo
Universidade Federal do Ceará, Faculdade de Economia, Administração, Atuária e Contabilidade, Departamento de Contabilidade
Avenida da Universidade, 2431 – CEP 60020-180
Benfica – Fortaleza – CE – Brasil

*Article presented at the XLII ANPAD Meeting, October of 2018, Curitiba, PR, Brazil.
**To our friend, Alan Diógenes Góis, who will forever remain in the hearts of those who were blessed with his company. Thank you for your boundless generosity, loyalty and earnest friendship (*in memoriam*).

1. INTRODUCTION

Narcissism (NARC) is a personality trait covering a wide spectrum of behaviors, the most important of which are an unrestrained sense of self-importance, a highly inflated and unrealistic self-image, compulsive bragging, hubris, and a constant need for flattery (Morf & Rhodewalt, 2001).

Narcissists are avid for status and recognition and some will break the law to achieve their goals (Blickle et al., 2006). They often regard others as less competent (Kong, 2015), and their excessive self-confidence expose them to the risk of making ill-advised decisions (Foster et al., 2011). Such behaviors usually manifest beyond the sphere of private life, affecting the work environment where egoistical acts and decisions can be injurious not only for team members, but also for broader sets of stakeholders (Chatterjee & Hambrick, 2007).

According to the upper echelon theory, the personality of top managers is predictive of their choices and, consequently, of organizational outcomes, such as performance, investment in research and development (R&D), and payment of taxes (Hambrick & Mason, 1984). Thus, the authors believe the decisions and outcomes of a company can be traced directly to the personality of senior executives (the upper echelons).

Upper echelon theory is highly relevant to the question of NARC: commonly observed narcissistic traits, such as charisma, persuasiveness, and craving for attention and admiration, actually help managers climb the ladder of corporate leadership (Campbell et al., 2011).

Narcissistic CEOs influence their organizations in many different ways, whether related to volatile high performance, fraud, earnings management, or the adoption of audacious corporate policies, such as sweeping changes in organizational strategy and bold business acquisitions (Chatterjee & Hambrick, 2007; Olsen et al., 2014; Rijsenbilt & Commandeur, 2013).

It should be noted that narcissistic CEOs are also capable of affecting corporate tax policies: they may encourage the adoption of payment deferral strategies or the employment of legal and illegal mechanisms to reduce the corporate tax burden. This reduction is referred to as tax avoidance (TA) (Hanlon & Heitzman, 2010).

Research in the area of taxation has improved our understanding of how directors' behavioral predispositions, preferences, inclinations, and other observable traits affect corporate TA practices. In fact, corporate tax practices may be influenced by CEO personality traits other than NARC, including overconfidence and factors affecting the CEO's risk profile, such as skills, political ideology, and military background (Christensen et al., 2015; Chyz et al., 2017; Koester et al., 2016; Law & Mills, 2017; Olsen & Stekelberg, 2016).

Earlier studies investigating the association between CEO personality profile (e.g., NARC and overconfidence) and TA were conducted in developed economies and common law countries, especially in the United States of America (Armstrong et al., 2010; Claessens & Yurtoglu, 2013; Chyz et al., 2017; Olsen & Stekelberg, 2016; Tsakumis et al., 2007). In this study, we evaluated the association between CEO NARC and TA in Brazilian public firms. By focusing on Brazil, an emerging economy regulated by code law, our investigation makes an important contribution to the accounting literature on TA. According to Atwood et al. (2012), tax avoidance behaviors are influenced by tax system specifics, such as the requirement of book-tax conformity and the efficiency of tax law enforcement as perceived by decision makers.

In addition, Claessens and Yurtoglu (2013) highlighted the importance of enforcement of regulations and the absence of corruption in countries. In their study, law enforcement was found to be on the average twice as strong in developed nations as in emerging or transitioning economies. The level of corruption was also lower, but with large variations. Likewise, Torgler (2005) believes that the high level of TA in Latin America may be explained by the local perception of corruption.

Furthermore, as shown by Tsakumis et al. (2007), the level of economic development should also be taken into account when quantifying corporate TA. These observations, and the fact that no previous investigation has focused on Brazil, ratify the relevance of the study and make it possible to extrapolate our results to firms from the United States of America and other countries.

Thus, due to well-documented differences at the institutional level, our results are likely to diverge significantly from the results of similar studies conducted in the United States of America in the past. Our study also provides stakeholders (especially tax authorities, external auditors, and investors, but also society at large) with tools to identify narcissistic behaviors predictive of corporate TA, which demand precautionary measures on part of business partners.

2. THEORETICAL FRAMEWORK

Hanlon and Heitzman (2010) broadly define TA as the reduction of explicit taxes, expressed in a continuum of settings, from less assertive behaviors (e.g., investment in tax-exempt bonds) to aggressive strategies like tax evasion and other punishable actions/omissions. Applying the concept proposed by Hanlon and Heitzman (2010), Atwood et al. (2012) measured TA as the difference between the firm's unmanaged tax amount and its managed tax amount (current taxes paid).

Earlier empirical studies have looked at the determinants of cross-sectional variation in TA, but most research has been focused on firm-specific variables (company size, performance, leverage [LEV], capital intensity, investment in R&D, inventory turnover, and internationalization) (Rego, 2003).

Some investigations have concluded that the observation of greater book-tax differences in firms involved in tax sheltering led to the development of models capable of quantifying the probability of this practice based on public data (Lisowsky, 2010). Tax shelters are transactions or arrangements that serve the sole aim of evading taxes in detriment to other business interests such as profits (Lisowsky, 2010).

Most studies on TA have been conducted in developed countries (especially the United States of America), but emerging economies are following suit. Thus, Goncharov and Zimmerman (2006) looked at the factors determining the preference of Russian firms for tax management over financial reporting quality. Lin et al. (2012) examined the effect of reductions in the corporate income tax rate on the level of earnings management in Chinese firms. Venter et al. (2016) analyzed the association between integrated thinking and the transparency of tax disclosure in South African firms. Finally, Chen and Gupta (2017) investigated the effect of increased R&D tax credit rates on R&D spending patterns in Taiwanese firms.

Others believe each CEO has his or her own management style (Bertrand & Schoar, 2003) and is by nature more or less prone to TA. Following this line of thought, Dyreng et al. (2010) tracked hundreds of executives and their employers over time, assigning them to three groups (CEOs, *chief financial officer* [CFOs], and others) for the purpose of analysis. All three types of executives (especially CEOs) were found to influence the level of TA practiced by the firm.

However, only recently has attention been turned to the personality traits of executives as predictors of corporate TA. For example, Gaertner (2014) has shown that certain incentives can lead managers to change corporate tax policies.

Chyz (2013) demonstrated that executives who engage in stock option exercise backdating for personal tax benefit are more likely to involve their firms in tax sheltering. Moreover, the fact that CEOs and CFOs from tax-sheltering firms rarely face significant personal or corporate reputational consequences when their misconduct is discovered (Gallemore et al., 2014) is an encouragement to continue such aggressive behaviors over time, even when hired by other firms. In fact, successful corporate TA is usually accomplished using persistent strategies (Guenther et al., 2017).

The association between the personality of senior executives and corporate TA has been explored by authors like Francis et al. (2014), who found female CFOs to adopt less aggressive tax strategies than their male counterparts. Likewise, Christensen et al. (2015) observed a connection between the level of corporate TA and the political leanings of the CEO. Law and Mills (2017) found that firms managed by CEOs with a military background tend to have greater average generally accepted accounting principles (GAAP) and cash effective tax rates and use fewer tax havens. On the other hand, Koester et al. (2016) found evidence that executives with superior ability to efficiently manage corporate resources are better at reducing the corporate income tax burden through tax planning, tax havens, R&D credit claims, and accelerated depreciation deductions.

Some authors have investigated the association between director profile and different company policies. For example, management style (Bertrand & Schoar, 2003) was used to explain the influence of executives on the adoption of accounting practices (Ge et al., 2011). Francis et al. (2008) demonstrated that firms administered by CEOs with good reputation tend to have better earnings quality.

In addition to improving earnings quality (Demerjian et al., 2013), the presence of high-ability managers increases the likelihood and frequency of accurate earnings forecast issuance (Baik et al., 2011). In contrast, excessively proud and overconfident CEOs may induce their firms to disclose biased information in financial reports (McManus, 2016), invest resources in high-risk projects (Li & Tang, 2010), and overestimate the return of investments (Hayward & Hambrick, 1997).

Assuming the performance of a firm can be explained by the background of its CEO, at least in part, Hambrick

and Mason (1984) proposed the upper echelon theory, according to which senior executives (the so-called upper echelons) make decisions, act, and adopt strategies in line with their personal preferences and inclinations. In such cases, the organization will eventually reflect the personality, values, and beliefs of the CEO (Cannella & Holcomb, 2005).

According to Hiebl (2014, p. 224), "individual top managers heavily influence organizational outcomes by the choices they make, which are – in turn – affected by the managers' characteristics"; in other words, to some extent, organizations mirror their top managers.

The upper echelon theory is actually a development of ideas originally set forth by Carnegie School pioneers Cyert and March (1963) and March and Simon (1958), who attributed complex decisions primarily to behavioral factors, and only secondarily to purely rational processes. This view is underpinned by the assumption of bounded rationality: the notion that most strategic situations involve too many variables to allow for purely rational decisions (Cannella & Holcomb, 2005). This is particularly relevant for senior executives who routinely make highly complex decisions, with long-term consequences for the organization (Hambrick & Mason, 1984).

Thus, when senior executives face the typical challenges of decision-making (information overload, ambiguous cues, competing goals, and objectives), stimuli are filtered and interpreted through cognitive bases and values (Carpenter et al., 2004). That is, their values, experiences, personalities, and other human factors greatly enter into their interpretations of business situations and the strategic choices they make (Hiller & Hambrick, 2005). The latter have a significant impact on organizational outcomes (performance, growth, investment in R&D, payment of taxes, etc.).

Since cognitive bases and values are psychological constructs which are difficult to measure, and senior executives are rarely available for time-consuming psychological testing, Hambrick and Mason (1984) suggest using demographic indicators and observable characteristics as proxies (Carpenter et al., 2004; Hiebl, 2014). However, as admitted by Hambrick (2007), demographic variables, though valid, constitute incomplete and inaccurate metrics. The personality profile of the executive appears to be a more reliable construct to predict decisions, including the choice of tax payment practices.

Personality may be defined as the relatively enduring patterns of thoughts, feelings, and behaviors that distinguish individuals from one another (Roberts & Mroczek, 2008). Some personality traits can negatively affect decision-making and ethical stance (D'Souza & Lima, 2015); such is the case of machiavellianism, NARC, and psychopathy, a set of attitudes referred to as "the dark triad" (Jones & Paulhus, 2014).

In this study, we focused on NARC because of the predominance of executives with this profile in leader positions and decision-making and their ability to lessen the influence of team members (Zhu & Chen, 2015). Moreover, in studies on CEOs based on secondary data, only NARC can be quantified with validated metrics, such as remuneration (Judd et al., 2017; Olsen & Stekelberg, 2016), signature (Ham et al., 2017, 2018), and photographs in reports (Chatterjee & Hambrick, 2007; Olsen et al., 2014; Rijsenbilt & Commandeur, 2013).

NARC is often characterized by self-aggrandizement. Technically, it may be described as "a personality construct that defines an individual's self-concept in terms of an exaggerated sense of self-importance, fantasies of unlimited success or power, need for admiration, and lack of empathy" (Johnson et al., 2013, p. 204). High levels of NARC are usually associated with behavior disturbances and disorders, but at moderate levels NARC is a common trait, which may be scored using the Narcissistic Personality Inventory, a survey based on forced-choice items (Raskin & Hall, 1979).

Raskin and Terry (1988) split the construct of NARC into seven components: authority, exhibitionism, superiority, vanity, exploitativeness, entitlement, and self-sufficiency. Although narcissists have an inflated, grandiose, and unreasonably positive self-view (Gabriel et al., 1994), they often seek external opportunities for self-affirmation through attempts to garner attention and admiration (Wallace & Baumeister, 2002). According to Morf and Rhodewalt (2001), narcissists are in a certain sense vulnerable because, while viewing themselves as superior to others, their notion of self is not grounded in objective reality and cannot stand on its own. This "grandiosity" demands constant attention and recognition from others (Morf & Rhodewalt, 2001).

Craving for power and status (Campbell & Foster, 2007), narcissists also engage in unethical behaviors to get what they desire (Grijalva & Harms, 2014), the cost of which is borne by the broader social and physical environment (Campbell et al., 2005). They are strongly sensitive to potential rewards, especially if these involve opportunities for self-exaltation; the associated high risk does not dissuade them from their goals (Foster & Trimm, 2008). Vazire and Funder (2006) believe narcissists are easily frustrated in their goals due to their impulsiveness and striving for status and recognition, and will sometimes react aggressively to failure (Twenge

& Campbell, 2003). Overestimating their own abilities, they become overconfident and are at risk of making ill-advised decisions (Campbell et al., 2004).

Despite these socially disagreeable traits, narcissists often come across as visionaries, enthusiasts, and innovators capable of attracting and mobilizing others with their confidence and charisma (Campbell et al., 2011), and they are known for being results-driven, fearless, and tenacious (Wallace et al., 2009).

Generally speaking, both the positive and negative aspects of NARC can help executives climb the corporate ladder. Indeed, many leadership positions are filled by narcissists who leave a visible imprint on company culture, policies, and outcomes (Amernic & Craig, 2010; Campbell et al., 2011). These personality traits may become evident to stakeholders in many ways, one of which is the choice of words, metaphors, and cultural keywords used by a CEO in his or her personal message published in the company's annual report (Amernic & Craig, 2007; Craig & Amernic, 2011). Thus, we not only analyzed photographs of CEOs, but also the CEOs' personal messages published in annual reports to determine their level of NARC, as proposed by Chatterjee and Hambrick (2007).

Some authors have found that narcissistic CEOs are more hardworking and use their position to generate greater absolute remuneration (salary, bonus, stock options, etc.) and relative remuneration (difference between the remuneration of the CEO and that of other senior executives) than non-narcissistic CEOs (O'Reilly et al., 2014). In fact, several other scholars have included CEO remuneration as a variable in the assessment of NARC (Judd et al., 2017; Olsen & Stekelberg, 2016; Olsen et al., 2014).

As for organizational outcomes, Chatterjee and Hambrick (2007) have shown that higher levels of CEO NARC are associated with extreme and volatile financial performance, and that narcissistic CEOs are less sensitive to objective indicators of negative corporate performance. Management by narcissistic CEOs is also predictive of more frequent changes in organizational strategy and intensification of policies of expansion to foreign markets (Chatterjee & Hambrick, 2007). Moreover, narcissistic CEOs are more aggressive when it comes to adopting technological innovations resulting in radical organizational change (Gerstner et al., 2013) and often make acquisitions without sufficient analysis (Chatterjee & Hambrick, 2007). Taken together, these behaviors suggest a preference for audacious and risky business strategies, which in the long run may expose the firm to public scrutiny.

Rijsenbilt and Commandeur (2013) observed that narcissistic CEOs are more likely to be directly or indirectly involved in corporate fraud. In fact, external auditors consider CEO NARC as an indicator of possible occurrence of fraud (Johnson et al., 2013) and charge a risk premium to audit firms administered by notoriously narcissistic CEOs, anticipating the additional work required to secure reliable financial data (Judd et al., 2017). The lack of ethical integrity among narcissistic CEOs also increases vulnerability to litigation and the frequency of corporate lawsuits (O'Reilly et al., 2017).

Others have suggested that narcissistic CEOs induce their firms to project an idealized image of performance, each day further removed from reality, culminating in the publication of heavily manipulated financial reports (Amernic & Craig, 2010). In fact, Olsen et al. (2014) demonstrated that firms administrated by narcissistic CEOs indulge in higher levels of earnings management, especially through real and operational activities. Likewise, Ham et al. (2017) looked at CFO NARC and earnings quality and found higher levels of CFO NARC to be correlated with biased reporting and unreliable financial data.

In a recent study, Olsen and Stekelberg (2016) analyzed the corporate tax policies of a sample of 232 CEOs from United States of America firms. The study revealed that narcissistic CEOs tend to encourage the adoption of more aggressive practices, increasing the likelihood of involvement in tax sheltering.

Chyz et al. (2017) pointed out that narcissistic CEOs are more prone to engage in questionable practices and to make aggressive strategic decisions than are overconfident CEOs; after all, overconfidence is not as extreme a personality trait as NARC. On the other hand, matching the observations of Olsen and Stekelberg (2016) for narcissistic CEOs, Chyz et al. (2017) concluded that overconfident CEOs are more likely to overestimate the net benefits from corporate investments in tax planning and thus favor the adoption of strategies that avoid or defer tax payment (Chyz et al., 2017).

Based on the reviewed literature and in light of the upper echelon theory, CEO NARC appears to intensify corporate TA. In other words, narcissistic CEOs seem particularly bent on reducing the corporate tax burden by adopting strategies within the continuum of Hanlon and Heitzman (2010), from mildly aggressive to risky and fraudulent. We therefore formulated the following hypothesis:

H_1: CEO NARC is positively associated with corporate TA.

In the following section, we describe the variables and models used to test the study hypothesis.

3. METHODS

The sample consisted of 68 firms traded on the most important stock market in Brazil (Brasil, Bolsa Balcão – B3 S.A.). As shown by Torgler (2005), the particularly high level of TA in Latin America may in part be explained by the influence of the local perception of corruption. In addition to the reasons given in the introduction, Brazil was chosen for this study because of its global importance as one of the world's largest emerging economies and because of the outbreak, over the past few years, of an epidemic of corruption scandals, reflected in the falling percentile rank of "control of corruption", a Worldwide Governance Indicators (Kaufmann et al., 2010), from 60 to 38.5 in only seven years (2010-2016). The indicator captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the capture of the state by elites and private interests.

Financial institutions (banks, insurance companies, and investment funds) were excluded from the sample because of the different regulations and tax rates to which they are subject. We also excluded firms with insufficient data to calculate the variables used in the model.

Information on the sampled firms (382 observations) was retrieved from annual reports available on company web portals and from the database Compustat®. Information on the CEOs (n = 91) was obtained from the website Relationship Science. The analysis covered the fiscal years of 2010 through 2017. This period was chosen for being posterior to the financial crisis (mid-2007 to mid-2009) and to the mandatory adoption of the International Financial Reporting Standards (IFRS) accounting format by public Brazilian firms in 2010.

TA was quantified with the metrics of Atwood et al. (2012) and Tang (2015), while CEO NARC was estimated with the metrics of Chatterjee and Hambrick (2007) and Olsen et al. (2014).

TA is defined as total corporate tax avoided in relation to the amount computed at the home-country statutory corporate tax rate divided by pre-tax income before special items (Atwood et al., 2012; Braga, 2017). Equation 1 (Atwood et al., 2012) was used to calculate TA1:

$$TA1_{it} = \frac{[\sum_{t-2}^{t}(PTEBX \times \tau)_{it} - \sum_{t-2}^{t} CTP_{it}]}{\sum_{t-2}^{t} PTEBX_{it}} \quad (1)$$

Pre-tax earnings before exceptional items (PTEBX) (equivalent to the Compustat database code PI) is the value of pre-tax earnings minus the value of special items (SPI). In Brazil, the home-country statutory corporate tax rate (τ) is 34% (KPMG, 2015). The current tax paid (CTP) is the current tax expense (TXC) minus the variation in income tax payable (TXP). In the absence of data on current tax expenses (TXC), we used the total tax expenses minus the deferred tax expenses (TXT minus TXDI), following the example of Braga (2017).

In addition to the metric proposed by Atwood et al. (2012), we employed two metrics developed by Tang (2015) and tested by Braga (2017). Tang (2015) defines TA as the difference between the home-country statutory corporate tax rate and the effective tax rate levied on earnings. In the first metric (TA2), shown in equation 2, the effective tax rate is found by dividing the current tax expense (CTE) by pre-tax income before special items.

$$TA2_{it} = \tau_{ij} - \frac{CTE_{it}}{PTEBX_{it}} \quad (2)$$

In the second metric (TA3), presented in equation 3, the effective tax rate is found by dividing the CTE by the operational cash flow (CFO).

$$TA3_{it} = \tau_{ij} - \frac{CTE_{it}}{CFO_{it}} \quad (3)$$

It should be noted that, in order to quantify TA as proposed by Atwood et al. (2012) and Tang (2015), we excluded observations in which the PTEBX and the CFO were negative. We also highlight that CTE, in equations 2 and 3, represents TXC, already mentioned, equivalent to the Compustat database code PI.

NARC was expressed with metrics validated by the literature which distinguish between traits, such as unrestrained sense of self-importance, unlimited power, and craving for admiration (Amernic & Craig, 2007; Chatterjee & Hambrick, 2007; Craig & Amernic, 2011; Johnson et al. 2013; Olsen et al., 2014; Rijsenbilt & Commandeur, 2013), extracted from secondary data published by the respective firms. Thus, NARC was proxied by the prominence of the photograph of the CEO (PHO), following the example of Olsen et al. (2014), and by the use of the first person (FIR) in the message of the CEO published in the company's annual report, as proposed by Chatterjee and Hambrick (2007).

Using Table 1 (Olsen et al., 2014), PHO was scored according to absence/presence, size, and composition.

Table 1
Level of chief executive officer (CEO) narcissism based on photograph in annual report

No photograph of CEO = 1 point
Photograph of CEO with one or more executives = 2 points
Photograph of CEO alone, occupying less than half the page = 3 points
Photograph of CEO alone, occupying more than half the page, the remainder occupied by text = 4 points
Photograph of CEO alone, occupying the whole page = 5 points

Source: *Olsen et al. (2014).*

The assigned score was divided by 5 to create an index of NARC. The higher the index, the more narcissistic the CEO. Sixty-three percent of the 382 analyzed reports contained a PHO.

FIR was scored according to the frequency of the use of the FIR (singular and plural) in the message of the CEO published in the company's annual report. The more frequent the use of the FIR singular, the more narcissistic the CEO was considered to be (Chatterjee & Hambrick, 2007).

A note on language: most studies using this metric to quantify CEO NARC are based on samples from English-speaking countries. The obligatory use of personal pronouns in English, as opposed to Portuguese, facilitates analysis. In Portuguese, due to verb conjugation, personal pronouns are often omitted. Since the annual reports used in this study were published in Portuguese, a more robust analysis was necessary. We therefore created a program capable of identifying the most common Portuguese verbs conjugated in the FIR (singular and plural). The program was tweaked to exclude verbs resembling nouns from business jargon or prepositions. To determine the index of NARC, the number of occurrences of the FIR singular in the CEO's message was divided by the number of occurrences of the FIR singular "and" plural.

Using factor analysis, the two variables (PHO and FIR) were combined to construct a satisfactory proxy for NARC. NARC is the sum of the standardized the prominence of the PHO and the use of the FIR in the message of the CEO published in the company's annual report.

Equation 4, a robust regression model with panel data, was used to test the study hypothesis.

$$TA_{it} = \beta_0 + \beta_1 NARC_{it} + \sum \beta_n \left(Controls\right)_{it} + \beta_J YEAR + \varepsilon_{it} \quad (4)$$

The control variables were related to either the CEO or the firm. The former included gender (GEN, indicator variable equal to 1 if the CEO is male and 0 otherwise), age (AGE, CEO's age in years), and doctorate degree (PHD, indicator variable equal to 1 if the CEO has a PhD and 0 otherwise); the latter included return on assets (ROA, pre-tax income divided by total assets), company size (SIZE, natural logarithm of sales), LEV (total debts divided by total assets), growth (GROW, percent change in sales), and loss (LOSS, indicator variable equal to 1 if the firm incurred a loss in net income in the preceding year and 0 otherwise). The BACON algorithm was used for the detection of multivariate outliers. Despite the potential relevance of information on sector, no sector variable was included in the present analysis because of the existence in the sample of sectors with only firm would compromise the robustness of any effect the sector might have on TA.

4. RESULTS AND DISCUSSION

Our analysis is divided into two parts: the first comprises descriptive statistics and Pearson correlations used to identify associations between study variables; the second is a regression analysis conducted in order to test the study hypothesis.

4.1 Descriptive Statistics and Pearson Correlations

Table 2 shows mean values, standard deviations, and per quartile values of non-categorical variables.

Table 2
Descriptive statistics

Variable	Obs.	Mean	SD	1º Quartile	2º Quartile	3º Quartile
TA1	382	0.796	0.304	0.369	0.573	0.827
TA2	382	0.249	0.262	0.183	0.27	0.34
TA3	382	0.286	0.268	0.195	0.30	0.34
NARC	382	0.024	0.698	0.009	0.023	0.048
PHO	382	0.528	0.219	0.309	0.34	0.895
FIR	382	0.251	0.041	0.118	0.237	0.563
GEN	382	0.937	0.243	1	1	1
AGE	382	52.939	7.957	46.75	53	58
PHD	382	0.047	0.212	0	0	1
ROA	382	0.102	0.092	0.006	0.064	0.119
LEV	382	0.267	0.177	0.144	0.291	0.431
SIZE	382	8.272	1.510	6.143	7.427	8.632
GROW	382	0.138	0.215	-0.024	0.009	0.210
LOSS	382	0.029	0.167	0	0	1

AGE = chief executive officer's (CEO) age; FIR = first person was scored according to the frequency of the use of the first person (singular and plural) in the message of the CEO published in the company's annual report; GEN = gender (1 male and 0 female); GROW = percent change in sales; LEV = total debts divided by total assets; LOSS = 1 if the firm incurred a loss in net income the previous year and 0 otherwise; NARC = narcissism was proxied by the prominence of the photograph of the CEO (PHO) (the prominence of the photograph was scored according to absence/presence, size and composition) and the use of the FIR in the message of the CEO published in the company's annual report; PHD = doctorate degree (1 CEO has PhD and 0 otherwise); ROA = pre-tax income divided by total assets; SD = standard deviation; SIZE = natural logarithm of sales; TA1 = tax avoidance (TA) based on Atwood et al. (2012); TA2 = TA based on Tang (2015); TA3 = TA based on Tang (2015).
Source: *Elaborated by the authors.*

The TA levels were higher in our study than in Atwood et al. (2012), Braga (2017), and Tang (2015), suggesting that Brazilian firms engage more intensely in TA. The variables used to build the construct NARC also yielded significantly different results: PHO was in the vicinity of 52% while FIR was well under 25%.

The observed discrepancy may be explained by differences in sample composition. While our sample consisted exclusively of Brazilian firms, the studies above covered between 22 and 35 countries with different legal systems and tax rates. As shown by the literature, institutional factors may favor or limit the adoption by CEOs of aggressive tax policies (Chyz et al., 2017; Olsen & Stekelberg, 2016) and may have profound impacts on a country's economic development (Tsakumi et al., 2007).

CEOs were predominantly older (mean age ≈ 53 years), male (93%), and non-PhD holders (96%) (Table 3), matching the findings of Ham et al. (2018). Most of the firms in the sample were large (≈ 8.27), with a relatively high mean ROA (≈ 10%) (Braga, 2017; Olsen et al., 2014), a solid growth (≈ 0.13), and few firms reported losses in the previous year (≈ 3%). Moreover, LEV was well under 50%, although not as low as that observed by Braga (2017) (≈ 26%).

Table 3 shows the results of the Pearson correlations between the study variables.

Table 3
Pearson correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1													
2	0.69*	1												
3	0.48*	0.56*	1											
4	0.16**	0.11**	0.14*	1										
5	0.12	0.08	0.09***	0.71*	1									
6	0.13***	0.08***	0.11**	0.74*	0.06	1								
7	-0.24*	-0.19*	-0.17*	-0.05	0.02	-0.09***	1							
8	-0.17*	-0.12**	-0.09***	-0.00	-0.14*	0.13*	-0.04	1						
9	0.05	0.01	0.02	0.09***	-0.01	0.15*	0.05	0.08***	1					
10	0.08	0.02	-0.17*	-0.15*	-0.06	-0.15*	0.07	-0.11**	-0.01	1				
11	-0.22**	-0.16*	-0.06	0.05	-0.03	0.11**	0.03	0.04	-0.11**	-0.41*	1			
12	0.02	-0.04	0.03	-0.11**	-0.10**	-0.06	-0.07	0.08***	0.11**	-0.21*	0.25*	1		
13	0.11**	0.07	-0.03	0.00	0.02	-0.01	-0.02	-0.08*	-0.12**	0.10**	0.05	-0.06	1	
14	-0.04*	-0.05	0.00	0.01	0.01	0.01	-0.01	0.18*	-0.03	0.10**	0.10**	0.02	-0.06	1

1 = TA1, tax avoidance (TA) based on Atwood et al. (2012); 2 = TA2, TA based on Tang (2015); 3 = TA3, based on Tang (2015); 4 = NARC, narcissism was proxied by the prominence of the photograph of the chief executive officer's (CEO) (PHO) and the use of the first person (FIR) in the message of the CEO published in the company's annual report; 5 = PHO, prominence of the photograph was scored according to absence/presence, size, and composition; 6 = FIR, first person was scored according to the frequency of the use of the first person (singular and plural) in the message of the CEO published in the company's annual report; 7 = GEN (gender), 1 one male and 0 female; 8 = AGE, CEO's age; 9 = PHD, doctorate degree, 1 CEO has PhD and 0 otherwise; 10 = ROA, pre-tax income divided by total assets; 11 = SIZE, natural logarithm of sales; 12 = LEV (leverage), total debts divided by total assets; 13 = GROW, percent change in sales; 14 = LOSS, 1 if the firm incurred a loss in net income the previous year and 0 otherwise.

, **, * = significant at 1, 5, and 0%, respectively.*

Source: *Elaborated by the authors.*

The three TA variables were positively correlated, especially TA1 and TA2. NARC was positively correlated with all TA variables, indicating that narcissistic CEOs tend to engage in higher levels of TA; thus, the study hypothesis was not rejected. This is consistent with the claim that narcissistic CEOs favor the adoption of audacious corporate policies (Chatterjee & Hambrick, 2007) and matches the results of Olsen and Stekelberg (2016), who found CEO NARC to increase the likelihood of corporate involvement in tax sheltering.

FIR was positively and significantly correlated with TA (TA1, TA2, and TA3), reinforcing the ability of language analysis to identify CEO NARC and, consequently, the potential of CEOs to influence organizational outcomes (Amernic & Craig, 2007; Craig & Amernic, 2011). PHO was only positively and significantly correlated with TA3.

Gender and age were negatively correlated with TA; thus, younger and female CEOs were more likely to practice TA. The association between younger age and greater willingness to take risks is hardly surprising (Yim, 2013), but the predominance of females disagrees with the conclusion of Francis et al. (2014) that male CFOs are particularly prone to TA.

The control variables show these correlations: ROA was negatively correlated with TA3, LEV was negatively correlated with TA1 and TA2, GROW was positively correlated with TA1, and LOSS was negatively correlated with TA1.

4.2 Regression Analysis

Table 4 shows the result of the multiple linear regression conducted to test the study hypothesis that CEO NARC is positively associated with corporate TA.

Table 4
Multiple linear regression – Chief executive officer's (CEO) narcissism (NARC)

	Model 1	Model 2	Model 3
	TA1	**TA2**	**TA3**
NARC	0.087***	0.035**	0.037***
	(2.46)	(2.40)	(3.13)
GEN	-0.570***	-0.180***	-0.107***
	(-4.30)	(-4.29)	(-3.22)
AGE	-0.015***	-0.004***	-0.003***
	(-3.68)	(-3.09)	(-3.26)
PHD	0.164	-0.035	-0.047
	(1.05)	(-0.72)	(-1.21)
ROA	-0.048	-0.305**	-0.620***
	(-0.12)	(-2.48)	(-6.34)
LEV	-0.249**	-0.155**	-0.139***
	(-1.20)	(-2.40)	(-2.70)
SIZE	0.041*	0.000	0.006
	(1.70)	(0.04)	(0.99)
GROW	0.112*	-0.030	0.029
	(1.13)	(-0.59)	(0.72)
LOSS	-2.174***	0.035	-0.069
	(-3.77)	(0.57)	(-1.40)
Intercept	1.948***	0.791***	0.662***
	(5.84)	(7.42)	(7.82)
Year fixed-effects	Yes	Yes	Yes
R^2	0.187	0.171	0.238
F	4.523	4.703	7.111
N	382	382	382

AGE = CEO's age; FIR: first person was scored according to the frequency of the use of the first person (singular and plural) in the message of the CEO published in the company's annual report; GEN = gender (1 male and 0 female); LEV= leverage (total debts divided by total assets); GROW = percent change in sales; LOSS =1 if the firm incurred a loss in net income the previous year and 0 otherwise; NARC = narcissism was proxied by the prominence of the photograph of the CEO (PHO) and the use of the FIR in the message of the CEO published in the company's annual report; PHD = doctorate degree (1 CEO has PhD and 0 otherwise); PHO = the prominence of the photograph was scored according to absence/presence, size, and composition; ROA = pre-tax income divided by total assets; SIZE = natural logarithm of sales; TA1: tax avoidance (TA) based on Atwood et al. (2012); TA2: TA based on Tang (2015); TA3: TA based on Tang (2015).

, **, * = significant at 10, 5, and 1%, respectively.*

Source: *Elaborated by the authors.*

As shown in Table 4, the more severe the NARC, the higher the level of TA; in other words, the study hypothesis could not be rejected by any of the three models of TA. These results are compatible with the observations of Ham et al. (2018), who found CFO NARC to be associated with the adoption of more aggressive discretionary practices of financial information manipulation, such as earnings management and less timely loss recognition. The observed positive association between CEO NARC and aggressive tax policies confirms the applicability of the upper echelon theory, according to which organizational results may be seen as a reflection of the personality of the senior executives.

As explained above, our results match those of Olsen and Stekelberg (2016) who found a positive and significant association between CEO NARC and the likelihood of involvement in tax sheltering. They are also compatible with the results of several studies on CEO NARC conducted in light of the upper echelon theory: narcissistic CEOs tend to adopt practices which increase corporate risk associated

with earnings management (Olsen et al., 2014), fraud (Rijsenbilt & Commandeur, 2013), frequent changes in organizational strategy (Chatterjee & Hambrick, 2007), and an increased number of lawsuits (O'Reilly et al., 2017).

Among the CEO and firm control variables, GEN, LEV, and AGE tested significant in all the models, while ROA, SIZE, GROW, and LOSS were significant in one of the models. Thus, higher levels of TA were observed with female and younger CEOs, as well as with larger, unprofitable, unleveraged, and growing firms. Hence, CEO and firm characteristics do in fact affect TA strategies.

In order to confer more robustness to the study, we conducted separate analyses for each of the proxies of CEO NARC: photographic prominence of the CEO (PHO) and use of the FIR in annual reports. The results are shown in Table 5.

Table 5

Multiple linear regression – Photograph of the chief executive officer (CEO PHO) and use of the first person (FIR)

	PHO			FIR		
	Model 1 TA1	**Model 2 TA2**	**Model 3 TA3**	**Model 1 TA1**	**Model 2 TA2**	**Model 3 TA3**
PHO	0.063**	0.012**	0.020*			
	(1.83)	(1.32)	(1.78)			
FIR				0.0684***	0.064**	0.031**
				(2.12)	(2.10)	(2.97)
GEN	- 0.638***	- 0.011**	-0.009**	-0.060**	-0.017**	-0.015**
	(-4.91)	(-2.74)	(-3.85)	(-1.62)	(-1.36)	(-2.31)
AGE	- 0.013***	-0.003**	-0.004**	-0.015***	-0.005	-0.004
	(-3.21)	(0.87)	(0.87)	(-3.76)	(-1.65)	(-1.01)
PHD	0.021	0.052	0.052	0.146	0.034	-0.038
	(0.38)	(0.41)	(0.41)	(0.98)	(0.40)	(-0.30)
ROA	- 1.172	-0.104*	-0.104*	- 1.168	-0.389*	-0.100*
	(1.45)	(-0.38)	(0.38)	(-2.44)	(-1.46)	(-0.37)
LEV	- 0.135*	-0.013**	-0.014**	-1.417***	-0.625*	-0.014*
	(-1.77)	(-0.21)	(-0.21)	(-2.09)	(-2.95)	(-0.21)
SIZE	0.036	0.082	-0.081	0.036	0.061	0.082
	(1.57)	(1.39)	(-1.39)	(1.57)	(1.25)	(1.39)
GROW	0.117*	0.101	0.100	0.115	0.138	0.103
	(1.20)	(1.39)	(1.40)	(1.18)	(2.05)	(1.42)
LOSS	-0.072**	0.046	-0.016	0.069*	-0.053	-0.016
	(1.85)	(0.91)	(-1.43)	(3.17)	(-1.98)	(-1.22)
Intercept	1.980***	0.861***	0.861***	2.077***	1.229***	0.838***
	(1.89)	(1.57)	(1.57)	(2.48)	(2.77)	(1.53)
Year fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.169	0.089	0.095	0.117	0.068	0.114
F	5.94	2.731	4.398	6.03	1.468	3.925
N	382	382	382	382	382	382

AGE = CEO's age; FIR = first person was scored according to the frequency of the use of the first person (singular and plural) in the message of the CEO published in the company's annual report ; FIR = the use of the first person in the message of the CEO published in the company's annual report; GEN = gender (1 male and 0 female); GROW = percent change in sales; LEV = total debts divided by total assets; LOSS = 1 if the firm incurred a loss in net income the previous year and 0 otherwise; PHD = doctorate degree (1 CEO has PhD and 0 otherwise); PHO = photograph of the CEO; PHO = the prominence of the photograph was scored according to absence/presence, size, and composition; ROA = pre-tax income divided by total assets; SIZE = natural logarithm of sales; TA1= tax avoidance (TA) based on Atwood et al. (2012); TA2= TA based on Tang (2015); TA3= TA based on Tang (2015).

, **, * = significant at 10, 5, and 1%, respectively.*

Source: *Elaborated by the authors.*

The same test was performed for the variables PHO and FIR, but the results remained constant, meaning that frequent use of the FIR singular in the annual message of the CEO and prominence of the CEO photograph were both positively correlated with TA. This reiterates the relevance of "CEO speak" in messages to stakeholders (Amernic & Craig, 2007) and the value of writing style as a predictor of aggressive tax payment practices (Law & Mills, 2015). It also demonstrates that CEO exposure (photograph) is an indicator of behaviors capable of affecting strategic corporate decisions.

The coefficients found for PHO and FIR (Table 5) reinforce the results shown in Table 4. FIR was an even stronger predictor of aggressive tax policies than PHO. Bradlee and Emmons (1992) described narcissists as typical extroverts, and Campbell et al. (2011) identified them as visionaries capable of attracting and mobilizing others. Thus, our results confirm the notion that narcissistic CEOs tend to adopt more aggressive methods to reduce the corporate tax burden.

5. CONCLUSIONS

The purpose of this study was to evaluate the association between CEO NARC and TA in 68 public firms (382 observations) traded on the Brazilian stock market, covering the period 2010-2017. TA was quantified with the metrics of Atwood et al. (2012) and Tang (2015), while NARC was measured based on photographs (Olsen et al., 2014) and messages (Chatterjee & Hambrick, 2007) published in annual reports.

Our results did not allow to reject the hypothesis that CEO NARC is positively associated with corporate TA. Narcissists are avid for attention, prestige, and admiration, and so create opportunities that will elicit this type of response. Narcissists also tend to be impulsive. Executives with this personality trait therefore come across as bold or aggressive, thus more prone to adopt TA strategies, as confirmed in the present study.

TA is defined by Olsen et al. (2014) as an aggressive behavior. By reducing or deferring tax payments, often in questionable ways, narcissistic CEOs make financial results appear more attractive and garner prestige and personal benefits.

The present investigation makes an important contribution to the literature on corporate taxation by identifying a psychological determinant, which to some extent can explain or predict corporate TA, whereas most other studies on TA have focused on company characteristics. We also show that the association between NARC and TA is present in a Latin American country with an institutional environment very different from that of other countries investigated so far, especially the United States of America, making it possible to extrapolate our results to some degree.

Based on our findings and considering the damage the discovery of opportunistic TA practices can cause to corporate reputation and stock value, firms are advised to invest in preventive corporate governance strategies.

As in Olsen and Stekelberg (2016), the main limitation of our study was the proxy employed to quantify NARC. Rather than using the Narcissistic Personality Inventory (Raskin & Hall, 1979), we measured NARC indirectly by analyzing photographs and messages published in company reports, an approach defended by Chatterjee and Hambrick (2007). Another limitation is the difficulty in determining to what extent the preference of narcissistic CEOs for firms with a tradition of aggressive tax behavior may have influenced the observed association between CEO NARC and TA.

Future investigations might also include cross-country comparisons, with emphasis on the impact of collectivism vs. individualism (Hofstede, 2011) on TA practices.

REFERENCES

Amernic, J. H., & Craig, R. J. (2007). Guidelines for CEO-speak: Editing the language of corporate leadership. *Strategy and Leadership*, *35*(3), 25-31.

Amernic, J. H., & Craig, R. J. (2010). Accounting as a facilitator of extreme narcissism. *Journal of Business Ethics*, *96*(1), 79-93.

Armstrong, C. S., Barth, M. E., Jagolinzer, A. D., & Riedl, E. J. (2010). Market reaction to the adoption of IFRS in Europe. *The Accounting Review, 85*(1), 31-61.

Atwood, T. J., Drake, M. S., Myers, J. N., & Myers, L. A. (2012). Home country tax system characteristics and corporate tax avoidance: International evidence. *The Accounting Review*, *87*(6), 1831-1860.

Baik, B., Farber, D. B., & Lee, S. (2011). CEO ability and management earnings forecasts. *Contemporary Accounting Research*, *28*(5), 1645-1668.

Bertrand, M., & Schoar, A. (2003). Managing with style: The effect of managers on firm policies. *The Quarterly Journal of Economics*, *118*(4), 1169-1208.

Blickle, G., Schlegel, A., Fassbender, P., & Klein, U. (2006). Some personality correlates of business white-collar crime. *Applied Psychology: An International Review*, *55*(2), 220-233.

Bradlee, P. M., & Emmons, R. A. (1992). Locating narcissism within the interpersonal circumplex and the five-factor model. *Personality and Individual Differences*, *13*(7), 821-830.

Braga, R. N. (2017). Effects of IFRS adoption on tax avoidance. *Accounting and Finance Review*, *28*(75), 407-424.

Campbell, W. K., & Foster, J. D. (2007). The narcissistic self: Background, an extended agency model, and ongoing controversies. In C. Sedikides, & S. J. Spencer (Eds.), *Frontiers of social psychology: The self* (pp. 115-138). Psychology Press.

Campbell, W. K., Bush, C. P., Brunell, A. B., & Shelton, J. (2005). Understanding the social costs of narcissism: The case of the tragedy of the commons. *Personality and Social Psychology Bulletin*, *31*(10), 1358-1368.

Campbell, W. K., Goodie, A. S., & Foster, J. D. (2004). Narcissism, confidence and risk attitude. *Journal of Behavioral Decision Making*, *17*(4), 297-311.

Campbell, W. K., Hoffman, B. J., Campbell, S. M., & Marchisio, G. (2011). Narcissism in organizational contexts. *Human Resource Management Review*, *21*(4), 268-284.

Cannella, A. A., & Holcomb, T. R. (2005). A multi-level analysis of the upper-echelons model. In F. Dansereau, & F. J. Yammarino (Eds.), *Multi-level issues in strategy and methods* (pp. 197-237). Elsevier.

Carpenter, M. A., Geletkanycz, M. A., & Sanders, W. G. (2004). Upper echelons research revisited. Antecedents, elements, and consequences of top management team composition. *Journal of Management*, *30*(6), 749-778.

Chatterjee, A., & Hambrick, D. C. (2007). It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative Science Quarterly*, *52*(3), 351-386.

Chen, M-C., & Gupta, S. (2017). The incentive effects of R&D tax credits: An empirical examination in an emerging economy. *Journal of Contemporary Accounting and Economics*, *13*(1), 52-68.

Christensen, D. M., Dhaliwal, D. S., Boivie, S., & Graffin, S. D. (2015). Top management conservatism and corporate risk strategies: Evidence from managers' personal political orientation and corporate tax avoidance. *Strategic Management Journal*, *36*(12), 1918-1938.

Chyz, J. A. (2013). Personally tax aggressive executives and corporate tax sheltering. *Journal of Accounting and Economics*, *56*(2-3), 311-328.

Chyz, J. A., Gaertner, F. B., Kausar, A., & Watson, L. (2017). *Overconfidence and corporate tax policy* [Working Paper]. Social Science Research Network. https://ssrn.com/abstract=2408236

Claessens, S., & Yurtoglu, B. B. (2013). Corporate governance in emerging markets: a survey. *Emerging Markets Review*, *15*(C), 1-33.

Craig, R., & Amernic, J. (2011). Detecting linguistic traces of destructive narcissism at-a-distance in a CEO's letter to shareholders. *Journal of Business Ethics*, *101*(4), 563-575.

Cyert, R. M., & March, J. G. (1963). *A behavioral theory of the firm*. Englewood Cliffs, N.J: Prentice-Hall.

D'Souza, M. F., & Lima, G. A. S. F. (2015). The dark side of power: The dark triad in opportunistic decision-making. *Advances in Scientific and Applied Accounting*, *8*(2), 135-156.

Demerjian, P. R., Lev, B., Lewis, M. F., & McVay, S. E. (2013). Managerial ability and earnings quality. *The Accounting Review*, *88*(2), 463-498.

Dyreng, S. D., Hanlon, M., & Maydew, E. L. (2010). The effects of executives on corporate tax avoidance. *The Accounting Review*, *85*(4), 1163-1189.

Foster, J. D., & Trimm, R. F. (2008). On being eager and uninhibited: Narcissism and approach-avoidance motivation. *Personality and Social Psychology Bulletin*, *34*(7), 1004-1017.

Foster, J. D., Reidy, D. E., Misra, T. A., & Goff, J. S. (2011). Narcissism and stock market investing: Correlates and consequences of cocksure investing. *Personality and Individual Differences*, *50*(6), 816-821.

Francis, B. B., Hasan, I., Wu, Q., & Yan, M. (2014). Are female CFOs less tax aggressive? Evidence from tax aggressiveness. *Journal of the American Taxation Association*, *36*(2), 171-202.

Francis, J., Huang, A. H., Rajgopal, S., & Zang, A. Y. (2008). CEO reputation and earnings quality. *Contemporary Accounting Research*, *25*(1), 109-147.

Gabriel, M. T., Critelli, J. W., & Ee, J. S. (1994). Narcissistic illusions in self-evaluations of intelligence and attractiveness. *Journal of Personality*, *62*(1), 143-155.

Gaertner, F. B. (2014). CEO After-tax compensation incentives and corporate tax avoidance. *Contemporary Accounting Research*, *31*(4), 1077-1102.

Gallemore, J., Maydew, E. L., & Thornock, J. R. (2014). The reputational costs of tax avoidance. *Contemporary Accounting Research*, *31*(4), 1103-1133.

Ge, W., Matsumoto, D., & Zhang, J. L. (2011). Do CFOs have style? An empirical investigation of the effect of individual CFOs on accounting practices. *Contemporary Accounting Research*, *28*(4), 1141-1179.

Gerstner, W.-C., König, A., Enders, A., & Hambrick, D. C. (2013). CEO narcissism, audience engagement and organizational adoption of technological discontinuities. *Administrative Science Quarterly*, *58*(2), 257-291.

Goncharov, J., & Zimmerman, I. (2006). Earnings management when incentives compete: The role of tax accounting in Russia. *Journal of International Accounting Research*, *5*(1), 41-65.

Grijalva, E., & Harms, P. D. (2014). Narcissism: An integrative synthesis and dominance complementarity model. *The Academy of Management Perspectives*, *28*(2), 108-127.

Guenther, D. A., Matsunaga, S. R., & Williams, B. M. (2017). Is tax avoidance related to firm risk? *The Accounting Review*, *92*(1), 115-136.

Ham, C., Lang, M., Seybert, N., & Wang, S. (2017). CFO narcissism and financial reporting quality. *Journal of Accounting Research*, *55*(5), 1089-1135. https://doi.org/10.1111/1475-679X.12176

Ham, C., Seybert, N., & Wang, S. (2018). Narcissism is a bad sign: CEO signature size, investment, and performance. *Review of Accounting Studies*, *23*(1), 234-264.

Hambrick, D. C. (2007). Upper echelons theory: An update. *Academy of Management Review*, *32*(2), 334-343.

Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, *9*(2), 193-206.

Hanlon, M., & Heitzman, S. (2010). A review of tax research. *Journal of Accounting and Economics*, *50*(2), 127-178.

Hayward, M. L. A., & Hambrick, D. C. (1997). Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. *Administrative Science Quarterly*, *42*(1), 103-127.

Hiebl, M. R. (2014). Upper echelons theory in management accounting and control research. *Journal of Management Control*, *24*(3), 223-240.

Hiller, N. J., & Hambrick, D. C. (2005). Conceptualizing executive hubris: The role of (hyper-)core self-evaluations in strategic decision-making. *Strategic Management Journal*, *26*(4), 297-319.

Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online Readings in Psychology and Culture*, *2*(1), 3-26.

Johnson, E. N., Kuhn, J. R., Apostolou, B. A., & Hassell, J. M. (2013). Auditor perceptions of client narcissism as a fraud attitude risk factor. *Auditing: A Journal of Practice and Theory*, *32*(1), 203-219.

Jones, D. N., & Paulhus, D. L. (2014). Introducing the short dark triad (SD3) a brief measure of dark personality traits. *Assessment*, *21*(1), 28-41.

Judd, J. S., Olsen, K. J., & Stekelberg, J. (2017). How do auditors respond to CEO narcissism? Evidence from external audit fees. *Accounting Horizons*, *31*(4), 33-52. https://doi.org/10.2308/acch-51810

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). *The worldwide governance indicators: Methodology and Analytical Issues* [Working paper]. Social Science Research Network. https://ssrn.com/abstract=1682130

Koester, A., Shevlin, T., & Wangerin, D. (2016). The role of managerial ability in corporate tax avoidance. *Management Science*, *63*(10). https://doi.org/10.1287/mnsc.2016.2510

Kong, D. T. (2015). Narcissists' negative perception of their counterparts' competence and benevolence and their own reduced trust in a negotiation context. *Personality and Individual Differences*, *74*, 196-201.

KPMG. (2015). Global Tax Rate Survey. KPMG International. Retrieved from https://assets.kpmg/content/dam/kpmg/pdf/2016/06/it-2015GlobalTaxRateSurvey_FINAL.pdf

Law, K. K. F., & Mills, L. F. (2015). Taxes and financial constraints: Evidence from linguistic cues. *Journal of Accounting Research*, *53*(4), 777-819.

Law, K. K. F., & Mills, L. F. (2017). Military experience and corporate tax avoidance. *Review of Accounting Studies*, *22*(1), 141-184.

Li, J., Tang, Y. (2010). CEO hubris and firm risk taking in China: The moderating role of managerial discretion. *Academy of Management Journal*, *53*(1), 45-58.

Lin, B., Lu, R., & Zhang, T. (2012). Tax-induced earnings management in emerging markets: Evidence from China. *Journal of the American Taxation Association*, *34*(2), 19-44.

Lisowsky, P. (2010). Seeking shelter: Empirically modeling tax shelters using financial statement information. *The Accounting Review*, *85*(5), 1693-1720.

March, J. G., & Simon, H. A. (1958). *Organizations*. Wiley.

McManus, J. (2016). Hubris and unethical decision making: The tragedy of the uncommon. *Journal of Business Ethics*, *149*, 169-185. https://doi.org/10.1007/s10551-016-3087-9

Morf, C. C., & Rhodewalt, F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Inquiry*, *12*(4), 177-196.

O'Reilly, C. A., Doerr, B., & Chatman, J. A. (2017). "See you in court": How CEO narcissism increases firms' vulnerability to lawsuits. *The Leadership Quarterly*, *29*(3), 365-378. https://doi.org/10.1016/j.leaqua.2017.08.001

O'Reilly, C. A., Doerr, B., Caldwell, D. F., & Chatman, J. A. (2014). Narcissistic CEOs and executive compensation. *The Leadership Quarterly*, *25*(2), 218-231.

Olsen, K. J., & Stekelberg, J. (2016). CEO narcissism and corporate tax sheltering. *Journal of the American Taxation Association*, *38*(1), 1-22.

Olsen, K. J., Dworkis, K. K., & Young, S. M. (2014). CEO narcissism and accounting: A picture of profits. *Journal of Management Accounting Research*, *26*(2), 243-267.

Raskin, R., & Hall, C. S. (1979). A narcissistic personality inventory. *Psychological Reports*, *45*(2), 590.

Raskin, R., & Terry, H. (1988). A principal-components analysis of the narcissistic personality inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, *54*(5), 890-902.

Rego, S. O. (2003). Tax avoidance activities of U.S. multinational corporations. *Contemporary Accounting Research*, *20*(4), 805-833.

Rijsenbilt, A., & Commandeur, H. (2013). Narcissus enters the courtroom: CEO narcissism and fraud. *Journal of Business Ethics*, *117*(2), 413-429.

Roberts, B. W., & Mroczek, D. (2008). Personality trait change in adulthood. *Current Directions in Psychological Science*, *17*(1), 31-35.

Tang, T. Y. H. (2015). Does book-tax conformity deter opportunistic book and tax reporting? An international analysis. *European Accounting Review*, *24*(3), 441-469.

Torgler, B. (2005). Tax morale in Latin America. *Public Choice*, *122*(1-2), 133-157.

Tsakumis, G. T., Curatola, A. P., & Porcano, T. M. (2007). The relation between national cultural dimensions and tax

evasion. *Journal of International Accounting, Auditing and Taxation*, *16*(2), 131-147.

Twenge, J. M., & Campbell, W. K. (2003). "Isn't it fun to get the respect that we're going to deserve?" Narcissism, social rejection and aggression. *Personality and Social Psychology Bulletin*, *29*(2), 261-272.

Vazire, S., & Funder, D. C. (2006). Impulsivity and the self-defeating behavior of narcissists. *Personality and Social Psychology Review*, *10*(2), 154-165.

Venter, E. R., Stiglingh, M., & Smit, A-R. (2016). Integrated thinking and the transparency of tax disclosures in the corporate reports of firms. *Journal of International Financial Management and Accounting*, 28(3), 394-427. https://doi.org/10.1111/jifm.12064

Wallace, H. M., & Baumeister, R. F. (2002). The performance of narcissists rises and falls with perceived opportunity for glory. *Journal of Personality and Social Psychology*, *82*(5), 819-834.

Wallace, H. M., Ready, C. B., & Weitenhangen, E. (2009). Narcissism and task persistence. *Self and Identity*, *8*(1), 78-93.

Yim, S. (2013). The acquisitiveness of youth: CEO age and acquisition behavior. *Journal of Financial Economics*, *108*(1), 250-273.

Zhu, D., & Chen, G. (2015). CEO narcissism and the impact of prior board experience on corporate strategy. *Administrative Science Quarterly*, *60*(1), 31-65.