The Role of Narcissistic Hypocrisy in the Development of Accounting Estimates*

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ABSTRACT

In an experiment including experienced managers, we investigate how supervisor and subordinate narcissism influence a supervisor's review of a subordinate's accounting estimate. While narcissistic supervisors express greater liking for narcissistic subordinates (narcissistic tolerance), they nonetheless reject and revise the accounting estimates of narcissistic subordinates to a greater extent than they reject estimates of non-narcissistic subordinates (narcissistic hypocrisy), even when doing so inhibits the supervisor's ability to reach a profit target. Our findings contribute to extant research in accounting and psychology. We demonstrate that narcissistic hypocrisy extends beyond the evaluation of others and alters narcissists' willingness to rely on other narcissists in a meaningful financial reporting decision. We also find that narcissistic hypocrisy is robust across age, gender, and supervisory experience.

Le rôle de l'hypocrisie narcissique dans l'élaboration d'estimations comptables

RÉSUMÉ

Les auteurs mènent auprès de gestionnaires chevronnés une expérience visant à déterminer en quoi le narcissisme des supérieurs et des subalternes influe sur l'examen auquel les supérieurs soumettent les estimations comptables des subalternes. Bien que les supérieurs narcissiques semblent apprécier davantage les subalternes narcissiques (tolérance narcissique), ils rejettent et révisent néanmoins les estimations des subalternes narcissiques plus souvent qu'ils ne rejettent les estimations des subalternes non narcissiques (hypocrisie narcissique), même lorsque cette décision nuit à leur capacité d'atteindre un objectif de profit. Les résultats de l'étude viennent enrichir les recherches existantes en comptabilité et en psychologie. Les auteurs démontrent que l'hypocrisie narcissique s'étend au-delà de l'évaluation d'autrui et modifie la mesure dans laquelle les narcissiques sont disposés à s'appuyer sur d'autres narcissiques dans une décision importante en matière d'information financière. Ils observent également que leurs conclusions quant à l'hypocrisie narcissique persistent quels que soient l'âge, le sexe et l'expérience de supervision.

1. Introduction

The integrity of accounting information depends on a system of effective quality controls advanced by a program of checks and balances (COSO 2013). For example, an accounting estimate initiated by a subordinate staff member must be reviewed (i.e., approved or revised) by a supervisor before it is recorded. The review serves to detect and correct potential material misstatements. However, the effectiveness of the review depends on the supervisor's ability to maintain objectivity (COSO 2009). We investigate how both supervisor and subordinate narcissism will influence this review and, specifically, how supervisor reliance on subordinate work will be affected.[1] Many researchers have previously examined the organizational effects of narcissistic executives (e.g., Olsen et al. 2013; Olsen and Stekelberg 2015; Ham et al. 2017; Judd et al. 2016), including the actions of subordinates in response to executive narcissism (Braun et al. 2018). We believe we are among the first to examine how subordinate narcissism influences supervisors, as well as the interaction between supervisor and subordinate narcissism.

There is ample evidence to suggest narcissism is on the rise in the U.S. population (Twenge et al. 2008; Twenge and Campbell 2008; Twenge and Foster 2010), and with it, researchers' interest in the manifold effects of narcissism (Young et al. 2016). Much of this research has focused on the negative impact of narcissism (Johnson et al. 2012; Olsen et al. 2013; Paulhus 2014; Olsen and Stekelberg 2015; Judd et al. 2016; Ham et al. 2017). Typically, these studies find that executive narcissism is associated with untoward executive behavior, such as greater earnings management (Olsen et al. 2013; Ham et al. 2017).

There is also a growing literature on how narcissistic executives influence individuals within an organization. For example, Braun et al. (2018) find that subordinates have negative emotional reactions to leader narcissism, resulting in increased counterproductive work behavior. However, there is a paucity of studies examining supervisors' reactions to subordinate narcissism and the interaction of supervisor and subordinate narcissism. Wisse et al. (2015) provide some evidence on this matter. They find that narcissistic subordinates are rated as more innovative by their supervisors. However, these ratings are moderated by supervisor narcissism; narcissistic supervisors rate narcissistic subordinates as less innovative. We extend this line of research by examining supervisors' use of subordinate input, rather than merely supervisors' perceptions (i.e., evaluations) of subordinates. Our approach allows us to examine the extent to which managers' impressions affect their actions and identify a tangible outcome of the interaction between narcissistic personalities that has implications for reporting quality.

We test whether subordinate narcissism will influence a supervisor's reliance on input from that subordinate. We expect reliance will depend on the supervisor's own narcissism. If this is the case, varying degrees of supervisor and subordinate narcissism may adversely affect reporting quality. This may especially be the case with respect to accounting estimates. Estimates are subjective by their very nature, and negative or positive framing of subordinate input may impair information integrity.

Our hypotheses leverage prior studies advancing the coexisting theories of narcissistic tolerance (i.e., narcissists are more accepting of other narcissists' traits) and narcissistic hypocrisy (i.e., despite this professed acceptance, narcissists do not demonstrate tolerance of narcissistic actions directed toward them). Hart and Adams (2014) find that narcissists (relative to non-narcissists) rate others exhibiting narcissistic traits more positively. They call this conditional liking narcissistic tolerance, and it appears to be driven by perceived similarity to self (Burton et al. 2017). Several studies report findings consistent with narcissistic tolerance (e.g., Wallace et al. 2015; Burton et al. 2017). However, Adams et al. (2015) provide evidence of narcissistic hypocrisy. They find that, while narcissists appear to like the idea of a narcissistic other, they are not receptive of others acting narcissistically.

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1.   We examine grandiose narcissism, characterized by grandiosity, entitlement, extroversion, attention-seeking, authoritativeness, and exploitativeness (Miller et al. 2011). Unless otherwise specified, references to "narcissism" in the article are to grandiose narcissism.

One explanation for narcissistic hypocrisy is that narcissists are protective of their grandiose self-images and are likely to aggress against those who threaten their egos (Bushman and Baumeister 1998; Jones and Paulhus 2010; Wisse et al. 2015). This is highly relevant in a competitive workplace, where narcissists might be especially sensitive to being outshone. Even though narcissistic supervisors may appear to have a "soft spot" for narcissistic subordinates, they may be less supportive of other narcissists that they view as potential threats.

Using experimental methods, we examine the influence of supervisor and subordinate narcissism on a supervisor's review of a subordinate's proposed inventory write-down for estimated obsolescence. Participants role-play a division manager, who is responsible for reviewing a proposed inventory write-down. The discretionary nature and inherent ambiguity of an inventory valuation allow for a range of acceptable estimates and greater latitude in judgment. In all cases, the subordinate provides an income-favorable estimate for the write-down (i.e., a smaller write-down), which allows the division to meet a profit target. We manipulate the description of the subordinate providing the estimate, as exhibiting high or low narcissism, holding knowledge, skill, and ability constant. We measure participant (supervisor) narcissism using the Grandiose Narcissism Scale (GNS; Foster et al. 2015).

Our findings provide evidence of both narcissistic tolerance and narcissistic hypocrisy. Compared to supervisors low in narcissism, supervisors high in narcissism rate a narcissistic subordinate as more likable (consistent with narcissistic tolerance); however, this tolerance does not extend to acceptance of the subordinate's recommendation. We find a significant interaction between supervisor and subordinate narcissism, where narcissistic supervisors make larger, income-decreasing adjustments to the proposed estimates of narcissistic subordinates (consistent with narcissistic hypocrisy). Our results are robust to controlling for supervisor age, gender, and supervisory experience.

We corroborate and extend prior research by examining not only how narcissistic supervisors perceive narcissistic subordinates but also how subordinate narcissism influences supervisors' reliance on their work. We confirm that narcissistic supervisors rate narcissistic subordinates more favorably (exhibiting narcissistic tolerance). We extend recent research by documenting an interactive effect of supervisor and subordinate narcissism, resulting in narcissistic hypocrisy that goes beyond personal evaluations. Narcissistic supervisors make greater revisions to narcissistic subordinates' recommendations, even when those revisions impede the achievement of an earnings goal.

Our research contributes to the accounting, management, and psychology literatures. Our findings emphasize the collaborative nature of financial reporting and highlight the importance of interpersonal interactions in accounting decisions. While prior accounting studies have focused on the relationship between executive personality characteristics (including narcissism) and reporting quality (e.g., Murphy 2012; Schrand and Zechman 2012; Ahmed and Duellman 2013; Olsen et al. 2013; Jia et al. 2014), our work suggests the study of narcissism should not be restricted to the traits of top-level managers and top-down effects. We demonstrate that subordinate narcissism has a bottom-up effect and that both supervisor and subordinate narcissism have a significant influence on supervisors' reliance on the work of subordinates.

We also contribute to the psychology and management literatures by demonstrating the effect of narcissistic hypocrisy on a business decision. Prior research in this area is concentrated on how narcissists evaluate other narcissists. We provide evidence that the favorable attitudes of narcissistic supervisors toward narcissistic subordinates does not spill over to greater reliance on their work product. To the contrary, our evidence suggests narcissistic hypocrisy results in narcissistic supervisors making significant revisions to input provided by narcissistic subordinates.

The remainder of the paper proceeds as follows. Section 2 discusses the development of our hypotheses, section 3 explains our methodology and experimental design, section 4 reports the results of the experiment, and section 5 provides a discussion of the results and conclusions of our research.

2. Background and hypotheses

Grandiose narcissism

Narcissism is a complex construct. Researchers generally agree that there are two broad categories of narcissism, grandiose and vulnerable narcissism (Dickinson and Pincus 2003; Miller et al. 2011). Grandiose narcissism, the focus of our paper, is the type more commonly encountered in daily life. Also called overt narcissism, grandiose narcissism is what many would consider as the stereotypical image of narcissism: arrogance, a sense of entitlement, and acclaim-seeking and exploitative behavior, with a propensity for self-enhancement. On the other hand, vulnerable narcissism is also known as covert or closet narcissism. While vulnerable narcissists also have a sense of entitlement and high expectations, they hide under less flashy personalities, even coming across as shy or modest (see Johnson et al. 2019).

The Narcissistic Personality Inventory (NPI), the most widely used measure of subclinical narcissism, is a measure of grandiose narcissism (Miller et al. 2011; Foster et al. 2015). Raskin and Terry (1988) originally proposed seven underlying factors of grandiose narcissism: (1) authority, (2) self-sufficiency, (3) vanity, (4) superiority, (5) exhibitionism, (6) entitlement, and (7) exploitativeness. There is strong consensus that each of these factors relates to the construct of grandiose narcissism. While the NPI functions acceptably as a global measure of grandiose narcissism, researchers have had problems using it to reliably measure the seven subcomponents (Corry et al. 2008; Ackerman et al. 2011). To address this issue, Foster et al. (2015) created the 33-item GNS, specifically designed to provide an improved overall measure of grandiose narcissism while also measuring each of the seven subcomponents more reliably. We use the more recent GNS measure in our research.

Narcissism in the workplace

Narcissists are often perceived favorably because of characteristics such as charisma, personal charm, extroversion, and confidence (Grijalva, Harms et al. 2015). Many successful CEOs, athletes, musicians, and entertainers exhibit characteristics associated with narcissism, such as progressive, fashion-forward ideas, confidence, and personal charisma (Maccoby 2000). However, researchers have also linked narcissism to negative and destructive behaviors. These negative behaviors include an abusive management style, excessive risk taking, resisting advice, and lapses in professional or ethical judgment (Rosenthal and Pittinsky 2006). Narcissism among corporate executives has been associated with greater earnings management (Olsen et al. 2013; Ham et al. 2017) and aggressive tax avoidance (Olsen and Stekelberg 2015). Studies have also demonstrated that external auditors respond negatively to narcissism in client executives by increasing assessments of fraud risk (Johnson et al. 2012) and audit fees (Judd et al. 2016), implying that narcissism is not universally perceived positively.

While there is a significant literature on narcissistic leaders, there is less research on the effects of narcissism in subordinates. Relevant to our work, Blair et al. (2008) measured narcissism in a sample of executive MBA students and then had each of the students' immediate workplace supervisors and subordinates complete performance appraisals. They found narcissism was correlated with lower ratings of integrity and interpersonal skills from supervisors but was uncorrelated to ratings on the same dimensions from subordinates. Similarly, Judge et al. (2006) found that subordinate narcissism was positively related to supervisor ratings of employee workplace deviance (i.e., counterproductive behaviors, such as not following instructions). These studies suggest supervisors may view narcissistic subordinates more negatively, but neither study measured both supervisor and subordinate narcissism.

We found only one study that examined the interactive effect of supervisor and subordinate narcissism. Wisse et al. (2015) examined how narcissistic supervisors rated the innovativeness of narcissistic subordinates. They found that supervisors rated more narcissistic subordinates as more innovative, but ratings were moderated by supervisor narcissism. Narcissistic supervisors rated narcissistic subordinates as less innovative. We aim to expand the research on narcissistic

supervisors and subordinates by examining not only narcissistic supervisor perceptions of narcissistic subordinates but also the degree to which narcissistic supervisors rely (or do not rely) on the work of narcissistic subordinates. Our research will shed light on how the interaction of narcissistic personalities in supervisors and subordinates can affect the financial reporting process.

Narcissistic tolerance

There are several studies in the broader social psychology literature examining narcissists' reactions toward other narcissists. Hart and Adams (2014) is an example of one study demonstrating narcissists' favorable response to other narcissists. They measured narcissism in a large pool of undergraduate students and subsequently had the students rate the likability of a series of hypothetical people possessing 1 of 11 different traits associated with narcissism (e.g., aggressive, arrogant, flashy), as well as the extent to which the students believed they themselves possessed those same traits. They found that narcissistic individuals rated others possessing narcissistic traits more positively. Furthermore, they found that students' liking of narcissistic others positively correlated with how strongly the students believed they possessed narcissistic traits, and this measure of self-possession of narcissistic traits mediated the relationship between student narcissism and ratings of other narcissists. They conclude that narcissistic tolerance appears to be driven by perceived similarity.

Wallace et al. (2015) and Burton et al. (2017) replicated the findings of Hart and Adams (2014) under different conditions. Wallace et al. (2015) created profiles of narcissistic and non-narcissistic individuals based on NPI items (e.g., "I am an extraordinary person") and asked participants to rate the extent to which they held a positive view of that person. Overall, participants rated the non-narcissistic profile more favorably. However, when rating the narcissistic profile, high narcissism participants gave higher ratings than low narcissism participants. Burton et al. (2017) created video clips of actors providing narcissistic and non-narcissistic responses to questions and found similar results. Participants reported higher likability ratings for the non-narcissistic response, but when rating the narcissistic response, participants higher in narcissism provided higher likability ratings than participants lower in narcissism. Based on these findings, we predict that narcissistic supervisors will exhibit narcissistic tolerance when evaluating the likability of narcissistic subordinates.

> HYPOTHESIS 1. *Compared to low narcissism supervisors, supervisors high in narcissism will rate narcissistic subordinates as more likable*.

Narcissistic hypocrisy

A positive view of someone in one aspect of social interaction can spill over into other, unrelated aspects of a relationship (i.e., the "halo effect"). Thus, one might expect that narcissistic supervisors exhibiting a favorable *likability* for narcissistic subordinates would take a similar favorable attitude toward their work product. However, an alternative possibility is that narcissistic superiors view narcissistic subordinates as ego threats and seek to aggress against them. An ego threat can be anything that threatens one's positive self-image (Leary et al. 2009). Narcissists' strong desire to maintain their own ego (i.e., their grandiose, superior self-image) often leads to aggressive reactions toward perceived ego threats (Bushman and Baumeister 1998; Bogart et al. 2004; Jones and Paulhus 2010; Back et al. 2013; Wisse et al. 2015).

Baumeister et al. (1996) proposed that narcissists would be particularly prone to aggressive responses to ego threat because of their inflated self-perceptions and their preoccupation with convincing others of their superiority. Bushman and Baumeister (1998) empirically tested this conjecture by examining how narcissists responded to ego threats (operationalized via an insult). They found that narcissism was associated with more aggressive behavior toward the source of an ego threat and that perceived threat mediated the relationship between narcissism and aggressive behavior. Bogart et al. (2004) examined narcissists' responses to a more subtle, indirect form of ego threat: comparing themselves to others. They observed that narcissists were more inclined to

compare themselves to others and merely comparing themselves to someone they view as an ego threat caused narcissists to experience feelings of hostility. We could not find research explicitly examining narcissists' comparison to other narcissists. However, Adams et al. (2015) found that narcissistic tolerance dissipated when narcissists were confronted with narcissistic behaviors. They termed this narcissistic hypocrisy, and it suggests that narcissists view other narcissists as ego threats.

Wisse et al. (2015) documented a similar effect in a work context; they measured narcissism in 306 supervisor-subordinate pairs of Dutch service workers and had each supervisor rate the subordinates' innovativeness. After finding that narcissistic supervisors rated narcissistic subordinates as less innovative, the authors speculated that this interaction may have been caused by narcissistic supervisors feeling threatened by a subordinate "stealing their thunder." From these studies, we infer that narcissistic hypocrisy is likely to manifest if a narcissistic subordinate is perceived as a threat to a narcissistic supervisor's ego.

These prior findings appear highly relevant to a work environment in which a supervisor must decide whether to rely or not on a subordinate's work. We specifically selected a situation where a supervisor must choose to accept, or adjust, a subordinate's proposed inventory adjustment. By doing so, we believe we focus on common financial reporting matters: *reliance on subordinates' work* and *management of earnings* to achieve an earnings target. In our setting, a conservative accounting estimate results in missing the earnings target, but a more aggressive (i.e., income-favorable) estimate results in meeting or exceeding the target. On the one hand, if a subordinate suggests a more aggressive estimate, a supervisor may be inclined to agree in order to meet the earnings target. However, narcissistic hypocrisy suggests that narcissistic supervisors may view the narcissistic subordinate as an ego threat. As a response to this ego threat, narcissistic supervisors may temper their subordinates' suggestions (i.e., choose to sacrifice the earnings goal in order to secure reputational superiority relative to the narcissistic subordinate).

> HYPOTHESIS 2. *Supervisors who exhibit greater narcissism will make larger negative adjustments to aggressive accounting estimates proposed by subordinates who also exhibit greater narcissism.*

3. Method

Design and participants

We tested our hypotheses in a between-subjects experiment.[2] Participants role-played as a division manager who was responsible for reviewing and approving an inventory obsolescence estimate advanced by a subordinate. We manipulated the narcissistic attributes of the subordinate who generated the estimate. Participant narcissism was a measured independent variable.

We utilized TurkPrime Panels to recruit participants. This service recruits participants from various online platforms (e.g., SurveyMonkey and Qualtrics). We paid a fee to TurkPrime, which pays the other platforms for access to their "panels" of participants. Studies conducted in this fashion draw participants from several different services. The amount and form of participant compensation varies by service. Frequently-used compensation forms include cash, reward points, gift cards, and charitable donations. Neither we nor TurkPrime were able to control or collect participant compensation information, so we cannot determine the average compensation for completing our study. Our cost was $8 per respondent.

We required participants to reside in the United States, be at least 18 years of age, and hold an MBA degree from a U.S. university. Four hundred and seventeen participants attempted our instrument, 110 participants were disqualified for not having an MBA degree, 6 participants had to be discarded due to an instrument malfunction (specifically, they were not introduced to the narcissism manipulation), and an additional 47 participants were discarded for failing the

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2.   Institutional Review Board approval was granted for the use of human subjects.

manipulation check regarding their perceptions of subordinate narcissism (as described below). We conducted our analyses with the remaining 254 participants.[3]

Prior research has shown that people can effectively identify narcissism in others (e.g., Buffardi and Campbell 2008; Friedman et al. 2007; Vazire et al. 2008). After reading a description of a subordinate employee (manipulated to exhibit characteristics consistent with high/low narcissism), participants were asked to rate their agreement with the statement, "Casey Jones (the subordinate) is narcissistic" using a seven-point Likert scale (1 = "strongly disagree," 7 = "strongly agree)."[4]

The 254 participants retained in our analyses took an average of 10.5 minutes to complete the instrument. The average participant was 47 years old, the sample was 52 percent male, and 80 percent of participants reported having managerial experience, with an average of 13.7 years (SD = 11.7) of experience. Libby et al. (2002) recommend matching participants to the goals of the study. We are investigating how mid-level managers make reporting decisions; as such, we feel our sample is an adequate proxy.

Procedure

Participants first completed screening questions to verify their education. Next, they completed the 33-item GNS from Foster et al. (2015). We chose this scale over the more well-known NPI (Raskin and Terry 1988) because of inconsistencies in the factor structure of the NPI, as well as criticisms of its forced-choice format (Miller et al. 2017). The GNS reproduces the original NPI seven-factor structure (i.e., authority, self-sufficiency, superiority, vanity, exhibitionism, entitlement, and exploitativeness) and can be used as an overall measure of narcissism. After the GNS, standard demographic information was recorded (including age, gender, and managerial experience).

Participants then read a scenario where they assumed the role of a division manager tasked with reviewing a proposed inventory write-down and deciding on the final amount of the write-down. We provided participants with a probable range for the value of the inventory ($500,000–$900,000) and a "most likely" value of $700,000. We also gave participants a division profit target and demonstrated how various write-down amounts would affect division profit. If the inventory was written down below $800,000, the division would not meet the profit target, and the "most likely" inventory value resulted in missing the profit target.

GAAP requires inventory be recorded at the lower of (i) the cost of inventory or (ii) the net realizable value, which is the estimated selling price less any "reasonably predictable" costs to complete and sell the inventory (ASC 330). The scenario involved slow-moving inventory from a new product line that was not performing as well as expected. This created uncertainty surrounding the selling price, and how steeply the inventory would need to be discounted, which gave participants leeway to deviate from the "most likely" amount. We instructed participants that meeting or exceeding the profit target was an important part of their performance evaluation. However, we did not provide actual economic incentives to choose a higher inventory valuation or record a smaller write-down. Experimental compensation was unrelated to the inventory value choice.

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3.   Using all 301 participants in our primary tests does not alter the statistical conclusions regarding Hypothesis 1, but Hypothesis 2 is no longer supported. However, if we use participants' perceptions of subordinate narcissism (based on manipulation check responses) rather than the assigned manipulation condition, statistical inferences of our primary tests for both hypotheses are unchanged, with both Hypotheses 1 and 2 supported.

4.   We excluded 47 participants for misidentifying high/low subordinate narcissism. These participants did not have statistical differences in age, gender, or experience from the 254 remaining participants. They did score significantly higher on the narcissism measure (mean = 155.77, SD = 33.22) than those retained (mean = 142.39, SD = 26.49), $t(299) = 3.047$, $p = 0.003$. Performance on two attention check questions suggests misidentification was caused by inattentiveness, rather than misinterpretation of the subordinate description. The first question asked participants how the inventory write-down will impact current year profit, and the second asked them to recall why the product line must be written down. Of the 254 (47) participants who passed (failed) the manipulation check, 82 percent (68 percent) answered the first question correctly, 91 percent (75 percent) answered the second question correctly, and 80 percent (66 percent) answered both questions correctly. All pass rates are statistically different at $p < 0.05$.

After the scenario, we gave participants a description of their subordinate employee (that is, the assistant controller), and the subordinate's recommendation for the inventory write-down. In all cases, the subordinate recommends an aggressive, high-value, inventory estimate (i.e., a small write-down), valuing the inventory at $850,000, which allows the division to meet the earnings target. After reviewing the subordinate estimate, participants chose the amount they would approve for the estimate. Following the main experimental materials, participants answered several follow-up questions regarding their impressions of the subordinate.

Independent variables

We manipulated the subordinate description at two levels: high and low narcissism. Prior studies manipulating narcissism employ descriptions of fictitious individuals built from characteristics frequently used to describe high or low narcissists (e.g., Hart and Adams 2014; Adams et al. 2015) or directly from narcissism measures (e.g., Wallace et al. 2015). High narcissism characteristics used by prior studies include aggressive, rude, arrogant, bossy, selfish, and flashy. Low narcissism characteristics include sensitive, gentle, timid, modest, and cooperative.

Narcissism is a multifaceted construct, and as such we designed our manipulations using the "360-degree" approach recommended by Lipe (2018). We utilized multiple cues representing different dimensions of the construct of interest to create manipulations that are more representative of an individual high or low in narcissism. We based our manipulations on the seven subcomponents of the GNS: (1) authority, (2) self-sufficiency, (3) superiority, (4) vanity, (5) exhibitionism, (6) entitlement, and (7) exploitativeness.

In the high narcissism condition, the subordinate is described as a person who puts a lot of emphasis on physical appearance (high vanity), who loves compliments (high exhibitionism), who expects to get what he wants (high entitlement), who is willing to leverage situations to create an advantage (high exploitativeness), who believes he is better than others (high superiority), who enjoys being an authority (high authority), and who does not like to delegate (high self-sufficient). We also stated that co-workers describe this individual as a narcissist.

In the low narcissism condition, the subordinate is described as a person who is not hung up on physical appearance (low vanity), who does not like to show off and is embarrassed by compliments (low exhibitionism), who hopes to get what he wants (low entitlement), who is reluctant to leverage situations (low exploitativeness), who recognizes his weaknesses and others' strengths (low superiority), who is willing to cede to authority (low authority), and who is willing to delegate (low self-sufficiency). We stated that co-workers describe this individual as modest. To try to reduce divergent impressions of non-narcissistic characteristics, the high and low narcissism subordinate each had the same background information. We described each as educated, ambitious, hardworking, personable, and funny. The exact wording of these conditions can be seen in our survey, provided in the supporting information in the online Appendix.[5]

Participant narcissism is the second independent variable of interest and was measured with the GNS. We recorded participant responses to the 33 GNS items on a seven-point Likert scale (1 = "strongly disagree," 7 = "strongly agree"). All GNS items are phrased such that stronger agreement (higher values) indicates more narcissistic responses. The total GNS score is calculated by summing the individual items. The mean GNS score was 142.39 (SD = 26.49, n = 254), and the scale exhibited strong reliability (α = 0.93). The mean is slightly higher than in samples reported in Foster et al. (2015).[6] We believe this may be due in part to two factors. First, they

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5. Please see supporting information in the online Appendix, "Subordinate Narcissism Manipulations" as an addition to the online article.

6. Foster et al. (2015) reported means of 114.66 (SD = 22.32, n = 980) and 110.71 (SD = 21.34, n = 262). However, they recorded participant responses on a six-point scale, whereas we used a seven-point scale. To facilitate comparison, we converted total scores to percentages, based on the maximum possible score for each scale. Our average score was 61.6 percent of the maximum; the Foster et al. (2015) averages were 57.9 and 55.6 percent of the maximum, respectively.

sampled a more heterogeneous population of college students, whereas we focus on business professionals. Second, their samples contained a higher percentage of females (61 percent and 75 percent in Foster et al. 2015, compared to 48 percent in our sample). Prior research suggests that females are less narcissistic than males (Grijalva, Newman et al. 2015).

Dependent variables

To investigate Hypothesis 1, we asked participants to rate their agreement with the statement "Casey Jones (the subordinate) is a likable person," using a seven-point Likert scale (1 = "strongly disagree," 7 = "strongly agree"). To investigate Hypothesis 2, we analyzed participant choices for the inventory write-down. We gave participants the following prompt: "As division manager, you are responsible for approving the inventory value amount. What amount would you record as the value of the inventory?" Participants responded by selecting an amount from a drop-down list of values between \$500,000 and \$900,000, in increments of \$50,000.

4. Results

Descriptive statistics

Descriptive statistics and Spearman correlations are provided in Table 1. The sample was 52 percent male. Of the 254 participants, 129 (125) received the low (high) subordinate narcissism manipulation. Consistent with prior literature, age has a negative correlation with participant narcissism (*GNS*).[7] The correlation between gender and narcissism is not significant but is directionally consistent with prior studies that find females to be less narcissistic.

Because subordinate narcissism (*SubNarc*) was manipulated, and participants were randomly assigned to receive either a high or low narcissism subordinate description, we did not expect, or find, *SubNarc* to be correlated with *GNS*. We do observe correlations consistent with our theory. *SubNarc* has a negative correlation with participants' inventory estimates and likeability ratings, and a positive correlation with participants' career threat perceptions. Participant inventory values have a positive correlation with ratings of subordinate likeability, but a negative correlation with perceptions of career threat.

Our main statistical tests, reported below, are robust to controlling for both age and gender. There are also no statistically significant interactions between age, or gender, and subordinate narcissism. Older and younger people responded to subordinate narcissism in the same manner, as did males and females.

Hypotheses tests

To test Hypothesis 1, we analyze participant responses regarding the subordinate likability using multiple regression. We estimate the following regression equation:

$$Likable = \beta_0 + \beta_1 SubNarc + \beta_2 GNS + \beta_3 SubNarc \times GNS. \tag{1}$$

SubNarc is a dummy variable equal to one (zero) if the participant was given the high (low) narcissism subordinate description. *GNS* is the participant's narcissism as measured by their GNS score. We mean-centered the GNS scores to reduce multicollinearity and improve interpretability of the model coefficients (West et al. 1996). The results of the regression are reported in Table 2. We find a significant main effect for *SubNarc*; participants rated the narcissistic subordinate

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[7].   Foster et al. (2003) utilize a cross-sectional design, with data collected at a single point in time, to demonstrate that older people report lower narcissism scores. Due to the relatively recent development of narcissism measures, to our knowledge, there has not been a longitudinal study of narcissism to determine how individual narcissism changes over time. The observed negative relationship cannot be clearly attributed to either (i) a decline in narcissism as individuals get older or (ii) an increase in narcissism in younger age groups (or some combination of the two).

TABLE 1

Descriptive statistics and Spearman correlations

	Age	Gender	SubNarc	GNS	Inventory	Likable	Threat
Mean	47.35	0.52	0.49	142.39	780.12	4.89	2.97
SD	15.22	0.50	0.50	26.49	90.28	1.66	1.62
n	254	254	254	254	254	254	254
Age							
Gender	0.287**						
SubNarc	0.031	−0.023					
GNS	−0.258**	0.016	0.084				
Inventory	0.023	−0.008	−0.247**	0.065			
Likable	−0.065	−0.001	−0.698**	0.018	0.221**		
Threat	−0.044	0.002	0.524**	0.085	−0.202**	−0.432**	

Notes: Gender = 0 (female), 1 (male). SubNarc = 0 (low subordinate narcissism), 1 (high subordinate narcissism). GNS = participant score on the Grandiose Narcissism Scale. Inventory = participant inventory value estimate (in thousands of dollars). Threat = participant rating of the subordinate as a career threat (1–7 scale). Likable = participant rating of how likable they find the subordinate (1–7 scale). **Correlation significant at 0.01 level (two-tailed).

TABLE 2

Subordinate likability

| Variable	Predicted	β	t-statistics	p-value
Intercept		6.016	57.437	<0.001
SubNarc		−2.330	−15.621	<0.001
GNS		<0.001	0.006	0.995
SubNarc×GNS	+	0.012	2.070	0.039
n		254		
R^2		50%		

Notes: Likable = $\beta_0 + \beta_1 SubNarc + \beta_2 GNS + \beta_3 SubNarc \times GNS$. SubNarc = 1 if the participant was in the high subordinate narcissism condition and zero if low. GNS = the mean-centered participant GNS score. The dependent variable, Likable = participant rating of the subordinate from the question, "Rate your agreement with the following statement: (The subordinate) is a likable person", using a 7-point scale from (1 = "strongly disagree," to 7 = "strongly agree"). All p-values are two-tailed. Variable definitions are provided in Table 1.

significantly less likable ($\beta_1 = -2.33$, $p < 0.001$). The main effect for GNS is not significant; however, we do see a significant interaction between SubNarc and GNS ($\beta_3 = 0.012$, $p < 0.039$). The positive sign indicates that narcissistic participants rated the narcissistic subordinate as more likable, which is consistent with narcissistic tolerance theory.[8]

Figure 1 depicts estimates produced from the regression equation for both the low and high subordinate narcissism conditions. The Y-axis represents the estimated participant likability rating for the subordinate. The X-axis varies participant narcissism for the range of GNS

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8.   We note the relatively high R^2 reported in Table 2 ($R^2 = 50$ percent). This is attributable to the strong correlation between subordinate narcissism and likability ($r = -0.692$, $p < 0.01$).

Figure 1 Plot of likability regression estimates
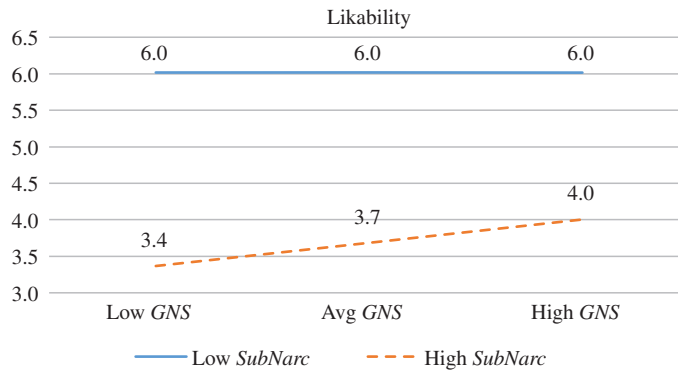
Notes: This figure shows predicted mean ratings of subordinate likability based on the regression described in Table 2. Low/high GNS are at ±1 SD from the mean GNS score. Variable definitions are provided in Table 1.

scores that are ±1 SD from the mean *GNS* (mean = 142.39, SD = 26.49), as recommended by West et al. (1996). The regression estimates show consistently high likability ratings for the low narcissism subordinate, regardless of participant narcissism. However, likability of the high narcissism subordinate depends on participant narcissism. Narcissistic participants find the high narcissism subordinate to be more likable. These results support Hypothesis 1.

To test Hypothesis 2, we analyze participant choices for the inventory value. A higher inventory value results in a lower write-down, and inventory values of at least $800,000 allow the division to meet the profit target. We estimate the following regression equation:

$$Inventory = \beta_0 + \beta_1 SubNarc + \beta_2 GNS + \beta_3 SubNarc \times GNS. \tag{2}$$

All independent variables are the same as in equation (1). The results of the regression are reported in Table 3. We find a significant main effect for *SubNarc* ($\beta_1 = -40.710$, $p < 0.001$), with supervisors making lower estimates when the subordinate is narcissistic. We also find a significant main effect for *GNS* ($\beta_2 = 0.660$, $p = 0.042$) with narcissistic supervisors making higher estimates. However, we also find a significant interaction between *SubNarc* and *GNS* ($\beta_3 = -0.923$, $p = 0.030$). Consistent with narcissistic hypocrisy, narcissistic supervisors make lower estimates when the subordinate is also narcissistic.

Figure 2 depicts estimates produced from the regression equation for both the low and high subordinate narcissism conditions. The Y-axis represents the estimated inventory value. The X-axis varies the participant narcissism for the range of GNS scores that are ±1 SD from the mean. Overall, the regression estimates show that low narcissism supervisors make more conservative inventory estimates and ones that will not allow the division to meet the profit target (i.e., below the $800,000 threshold), regardless of subordinate narcissism. The regression results also show that subordinate narcissism has opposite effects on narcissistic supervisors. When subordinates exhibit low narcissism, more narcissistic supervisors make increasingly aggressive inventory estimates that are above the profit target threshold. However, when subordinates exhibit high narcissism, more narcissistic supervisors make increasingly conservative inventory estimates. These results support Hypothesis 2.

TABLE 3
Inventory values

| Variable	Predicted	β	t-statistics	p-value
Intercept		801.474	103.073	<0.001
SubNarc		−40.710	−3.676	<0.001
GNS		0.660	2.047	0.042
SubNarc×GNS	−	−0.923	−2.177	0.030
n		254		
R^2		7%		

Notes: Inventory = $\beta_0 + \beta_1 SubNarc + \beta_2 GNS + \beta_3 SubNarc \times GNS$. *SubNarc* = 1(0) if the participant was in the high (low) subordinate narcissism condition. *GNS* = the mean-centered participant GNS score. The dependent variable, *Inventory* = participant choice of inventory value. An inventory value of at least $800 K was needed to meet the division profit target. All *p*-values are two-tailed. Variable definitions are provided in Table 1.

Supplemental tests

Sensitivity tests

We consider two alternative analyses for our primary regression analyses. First, we apply a median split of GNS scores in a 2×2 ANOVA in place of the continuous measure used in the regression analyses. We note that our results for both Hypothesis 1 and Hypothesis 2 (untabulated) are robust. Second, an alternative way to analyze inventory value choices is to categorize the values into those that allow the division to meet or beat the earnings target and those that do not. We conduct an additional test using logistic regression. We recode participant inventory values equal to one if they chose a value ≥$800,000 (that is, the minimum inventory value that would still allow the division to meet the earnings target), and zero otherwise. We find results consistent with Hypothesis 2 (untabulated), with the coefficient on *SubNarc* significantly negative ($\beta_1 = -0.927$, $p < 0.001$), the coefficient on *GNS* significantly positive ($\beta_2 = 0.018$, $p = 0.040$), and the *SubNarc×GNS* interaction marginally significant, and negative ($\beta_3 = -0.018$, $p = 0.092$).

Figure 2 Plot of inventory value regression estimates
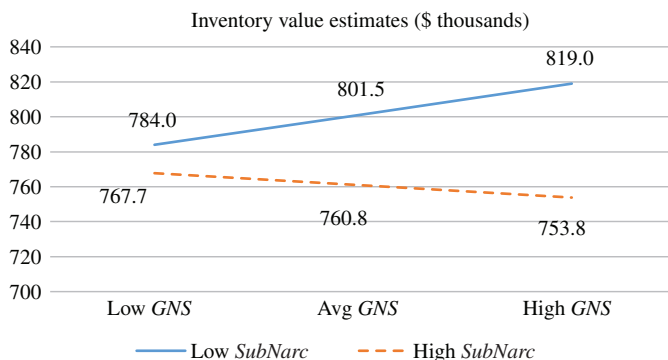
Notes: This figure shows predicted mean inventory values based on the regression described in Table 3. Low/high *GNS* are at ±1 SD from the mean GNS score. Variable definitions are provided in Table 1.

Alternative explanations

Narcissists have been shown to exhibit greater risk-taking behavior (Campbell et al. 2004). This behavior stems from their inflated beliefs about themselves (i.e., overconfidence) and their desire to prove their superiority. Supervisors might discount an aggressive estimate from a narcissistic subordinate to guard against this risk-taking proclivity. Indeed, our results show that supervisors, on average, made larger downward (i.e., conservative) adjustments when the subordinate was narcissistic. However, the risk explanation does not account for the interaction between subordinate and supervisor narcissism. Because narcissists are more accepting of risks, narcissistic supervisors should be more willing to permit an aggressive estimate. We observe this only when subordinate narcissism is low. When subordinate narcissism is high, narcissistic supervisors make more conservative inventory estimates.

Another alternative explanation for our results is that narcissists are perceived to be less competent employees, which would provide supervisors a reason to alter their work. However, Judge et al. (2006) found that subordinate narcissism did not influence supervisor ratings of employee job performance. Also, as we will discuss below, the high narcissism subordinate was viewed as more of a career threat than the low narcissism subordinate, which suggests that the high narcissism subordinate was perceived to be at least as competent as the low narcissism subordinate. For these reasons, we believe it is unlikely that our results are attributable to differences in perceived competence of the low/high narcissism subordinate.

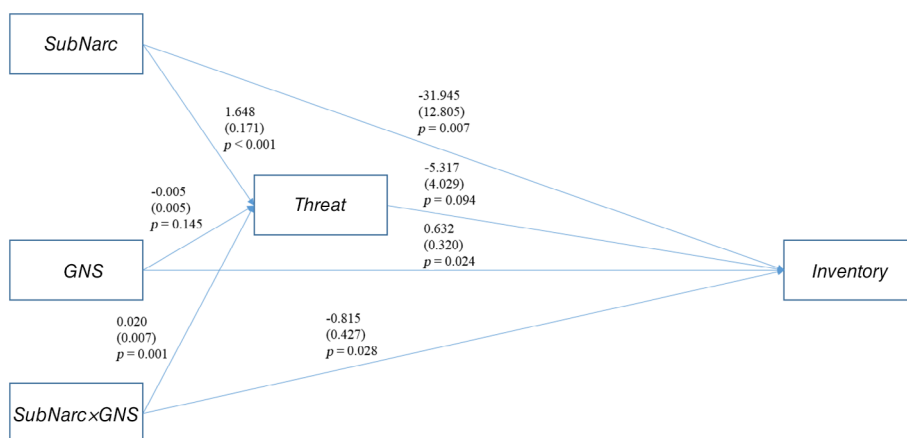### Does perceived career threat explain narcissistic hypocrisy?

Bushman and Baumeister (1998) provide evidence that *threat perception* mediated the relationship between narcissism and aggressive behavior toward an ego threat. To determine if threat perception explains narcissistic supervisors' larger adjustments to the narcissistic subordinate's estimate, we asked participants to rate their agreement with this statement: "I would view Casey Jones as a threat to my career," using a seven-point Likert scale (1 = "strongly disagree," 7 = "strongly agree"). We then tested for mediated moderation, using structural equation modeling (SEM), to assess the extent to which perceived career threat mediates the interactive effect of subordinate and supervisor narcissism on inventory estimates.[9]

We used Mplus (Muthén and Muthén 2017) to conduct our analysis. If perceptions of career threat are driving the main result, we should see that narcissistic supervisors are more threatened when a subordinate exhibits narcissism, which, in turn, causes the supervisor to reject the subordinate estimate. The SEM results including a path diagram are reported in Figure 3.

The path of interest is the path from $SubNarc{\times}GNS \rightarrow Threat \rightarrow Inventory$. To be consistent with narcissistic tolerance, the coefficient on the path from $SubNarc{\times}GNS$ to *Threat* should be positive, and the coefficient from *Threat* to *Inventory* should be negative. Because the model is fully saturated, fit statistics are not available. $SubNarc{\times}GNS$ affects *Threat* in the predicted manner ($\beta = .020$, $p = 0.001$); more narcissistic supervisors rate the narcissistic subordinate as a greater career threat. *Threat* is also related to *Inventory*, as predicted ($\beta = -5.317$, $p = 0.024$); supervisors who feel the subordinate is a greater career threat provide lower inventory values. The indirect path from $SubNarc{\times}GNS$ to *Inventory*, through *Threat* can be calculated by multiplying the coefficients from $SubNarc{\times}GNS$ to *Threat* and *Threat* to *Inventory* together. A Sobel test reveals the indirect path is not significantly different from zero ($t = -1.198$, $p = 0.115$, one-tailed, untabulated). Thus, it does not appear that career threat mediates the interactive effect of supervisors and subordinate narcissism on supervisor inventory estimates.[10]

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9.   Alternative tests using the Baron and Kenny (1986) regression method, and the Hayes (2013) bootstrapping method yielded the same statistical conclusions.

10.   We also examined likeability and a measure of perceived similarity between the supervisor and subordinate as potential mediators. We did not find evidence that either measure mediated the main result.

Figure 3 SEM model 1 (ML estimation)

SubNarc

1.648
(0.171)
$p < 0.001$

-31.945
(12.805)
$p = 0.007$

-5.317
(4.029)
$p = 0.094$

Threat

-0.005
(0.005)
$p = 0.145$

0.632
(0.320)
$p = 0.024$

GNS

Inventory

0.020
(0.007)
$p = 0.001$

-0.815
(0.427)
$p = 0.028$

SubNarc×GNS

Notes: N = 254. Fit indices, not available for fully saturated models. *Threat R^2* = 0.305, *Inventory R^2* = 0.074, *SubNarc* = 0 (1) for low (high) subordinate narcissism, *GNS* = mean centered participant GNS score, *Threat* = Participant response to "I would view [the subordinate] as a threat to my career" (1–7 scale), *Inventory* = Participant inventory dollar value recommendation. Next to each path is, from top to bottom: path coefficient, standard error, and *p*-value (one-tailed).

We speculate that mediation was not successful because the mediator measure specifically asked supervisors to assess the *career threat* posed by the subordinate, and this did not adequately measure *ego threat*. Ex ante, we believed career threat (being surpassed by a subordinate) was likely to be a primary concern given our setting and a reasonable proxy for ego threat. While the mediation test showed that narcissistic supervisors considered the narcissistic subordinate to be a greater career threat, the actual magnitude of the perceived career threat was minimal. In untabulated analyses, ex post, we found that participants in both the low and high narcissistic subordinate conditions rated career threat below the midpoint of four on the seven-point responses scale (means of 2.15 and 3.82 for the low and high narcissistic subordinate conditions, respectively). This suggests that the narcissistic subordinate was not seen as a credible career threat. In retrospect, this is plausible, because the supervisor/subordinate relationship was made apparent. Participants must have felt that there was little career threat from someone who was clearly their junior. However, this does not exclude the narcissistic subordinate from being an ego threat; it just means narcissistic supervisors did not feel threatened in that specific way.

Both the low and high narcissism subordinate were described as educated, ambitious, hardworking, personable, and funny. High narcissism subordinates were also described (in part) as showoffs, who like the spotlight, believe they are better than others, and are willing to leverage situations to their advantage. This description should have provoked a comparison from narcissistic supervisors, resulting in a threatened ego, and hostility toward the subordinate (Bogart et al. 2004). We believe that ego threat is the underlying cause of our observed narcissistic hypocrisy, and that the career threat measure was simply not an adequate proxy for ego threat. We recognize this as a limitation of our research in our conclusion section.

5. Conclusion

As a safeguard to financial reporting quality, supervisors are tasked with reviewing accounting estimates advanced by subordinates. We use an experiment to demonstrate that supervisor reviews are significantly influenced by subordinate narcissism. Our results also demonstrate that

the effect of subordinate narcissism is conditional on supervisor narcissism. We provide evidence of both narcissistic tolerance and narcissistic hypocrisy. On one hand, narcissistic supervisors are more tolerant of narcissistic subordinates, rating them as more likable. On the other hand, narcissistic supervisors are less likely to agree with narcissistic subordinates' aggressive accounting choices, even when disagreeing leads to falling short of an earnings target.

Our research makes several contributions. Wisse et al. (2015) provided initial evidence of narcissistic hypocrisy in a sample of Dutch supervisors. We demonstrate that narcissistic hypocrisy not only influences narcissists' perceptions of other narcissists but also affects narcissists' use of information provided by other narcissists in a meaningful management decision-making setting. Our research also contributes to accounting and business research and practice. Most business organizations, including professional accounting practices, exhibit a hierarchal structure. In such organizations, managers leverage and rely on the work of subordinate professionals. We demonstrate the importance of subordinates and their personalities in the development of accounting information. Subordinate narcissism is particularly relevant because research suggests that narcissism is increasing in younger populations (Twenge et al. 2008; Young et al. 2016). Whereas most of the prior accounting literature focuses on the personal characteristics of executives or primary decision makers, we provide evidence that subordinates, and their personalities, can exert significant influence over the financial reporting process.

We made several significant design choices which limit the conclusions that can be drawn from our work. Perhaps most importantly, we utilized written descriptions to manipulate subordinate narcissism. While this is consistent with prior work in the area and allows for greater experimental control and internal validity, we do sacrifice contextual richness that is present in real life. This is most notable in two ways. First, work relationships are built over time and across many interactions. Other research on narcissism has suggested that perceptions of narcissists may change over time (e.g., Paulhus 1998). Narcissistic hypocrisy could be moderated by the nature and/or duration of the relationship between the supervisor and subordinate. However, we note that our results are consistent with Wisse et al. (2015), who measured narcissism in actual pairs of supervisors/subordinates and still found evidence consistent with narcissistic hypocrisy. Second, personalities are multifaceted. Narcissists are not *only* narcissistic. Many researchers have noted the correlation between narcissism and two other traits, Machiavellianism and psychopathy (Dahling et al. 2009; Jonason and Webster 2010; Rauthmann 2012; Rauthmann and Kolar 2013). While there is some overlap between narcissism, Machiavellianism, and psychopathy, our manipulation was not meant to create a multifaceted personality including Machiavellianism and psychopathy. It is possible that the relative strength of these related traits (or other traits) within a fully formed personality could alter how one is perceived by others.

Another limitation of our work is our focus on a single type of narcissism (namely, grandiose narcissism), and our use of a specific measure of grandiose narcissism (specifically, the GNS). Narcissism is a complex construct. There is evidence of significant variation, within narcissists, on several different dimensions (e.g., Dickinson and Pincus 2003; Foster and Campbell 2007; Back et al. 2013; Kwiatkowska et al. 2019). A host of scales exists that vary in length (e.g., 13–40 questions), format (e.g., force choice versus use of Likert scales), structure (yielding 2–7 subfactors), and theoretical underpinnings (e.g., grandiose versus vulnerable narcissism). It is possible that some forms of narcissism are more or less conducive to narcissistic hypocrisy, as different forms of narcissism may be more or less compatible with each other. It also seems likely that the amount of narcissistic hypocrisy may be exacerbated by certain variations of narcissists (such as vulnerable narcissists). We leave it to future researchers to investigate these possibilities. Additionally, we explored a specific behavior (namely, managing earnings *upwards*), absent any true financial or career motives for engaging in the behavior. Narcissistic hypocrisy may be heightened or attenuated when incentives such as financial rewards, job security, and or workplace recognition are present.

A final limitation of our study is that we did not find evidence that threat perception mediates the narcissistic hypocrisy effect. As previously discussed, we believe this lack of finding is

attributable to mismeasurement of the construct (i.e., *career* threat versus *ego* threat) rather than a theoretical issue. However, we cannot rule out the possibility that narcissistic hypocrisy is caused by something other than ego threat. Future researchers could help clarify this no-result by incorporating more nuanced measures of ego threat perception.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article.

Appendix S1: Subordinate Narcissism Manipulations