The Dark Side of Socially Mediated Rewards: How Narcissism and Social Status Affect Managerial Reporting

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Abstract: We extend prior research on performance reporting by examining how individual traits and environmental features affect the willingness of managers to report honestly. Drawing on research in psychology, we expect narcissism and the desire for social status to compete with preferences for honesty. To test our predictions, we use an experimental research design that orthogonalizes financial incentives (cash compensation) from non-financial incentives (social status). Consistent with our predictions, we find that narcissism, a stable and measurable personality trait, induces participants to inflate reported performance, but only when the participant views the task as important. We also provide evidence that these influences are especially pronounced when managers feel challenged to be the top performer. In addition, we find that even non-narcissistic participants are prone to inflate reported performance in settings that reward high reported performance with social status. Together, these results have several implications related to hiring practices and the design of control systems, as well as audit planning.

1. Introduction

Over the past 10 years, a number of studies in managerial accounting have examined the extent to which managers report honestly (Luft and Shields 2010). These studies have demonstrated a number of important empirical regularities with respect to managerial honesty, perhaps the most important being that managers are willing to trade off financial rewards for honesty. However, Luft and Shields also point out that these preferences are context dependent and call for additional research on the factors that influence these preferences.

These contextual factors could relate to either managerial traits or to features of the environment in which managers operate. With respect to managerial traits, recent research identifies narcissism and other personality characteristics as being potentially associated with performance reporting (e.g., Bamber et al. 2010; Schrand and Zechman 2011). However, even if some (or most) managers are not narcissistic, some environments in which managers operate may create salient opportunities for social comparison. For example, control systems that utilize social comparison to induce greater effort may lead even non-narcissists to overreport, even in the absence of monetary incentives to do so.

Our study, therefore, has two primary objectives. Our first objective is to understand whether narcissism, a measurable and verifiable personality characteristic, affects the willingness of managers to report honestly. As noted above, particular interest has been paid to the effect of narcissism on performance reporting due to its documented presence among managers and corporate executives. Using an experimental research design allows us avoid many of the econometric and construct validity issues that limit archival-based inferences on narcissism by allowing us to directly measure narcissism and to more carefully examine the circumstances under which narcissism is associated with overreporting. Our second objective is to determine how opportunities for social comparison affect the willingness of managers (whether narcissistic

or not) to report honestly. If so, this result would stand in contrast to a growing literature demonstrating that socially-mediated rewards can reduce agency concerns by inducing honest reporting.[1] While we acknowledge the potential benefits to utilizing socially-mediated rewards, in this study, we go further by exploring the circumstances under which utilizing these benefits can come with potential costs.

To test our predictions regarding narcissism and the effects of social comparison, we use a research design that orthogonalizes financial incentives (cash compensation) from non-financial incentives (social status).[2] In particular, our laboratory experiment uses a between-subjects design in which participants are randomly assigned to conditions in which we either do or do not make different levels of (non-financial) social status salient. The experimental task consists of two parts. First, participants complete a quiz consisting of a series of general knowledge questions taken from a set of Graduate Management Admission Test (GMAT) practice exams. Second, participants publicly and sequentially report their task performance. Our key dependent measure captures participant misreporting and is the difference between publicly reported task performance and actual performance. Our experimental design also allows us to examine whether participants change their intended public reports in response to the scores they see being reported by others. Importantly, participants are able to make the same social comparisons in all conditions, which allows us to manipulate the salience of social status while holding constant the information that participants receive about other participants' reported performance. Thus, our experimental setting allows us to precisely measure key characteristics of

[1] Sprinkle notes that "it is important to examine social motives and values because individuals make decisions in a broad social context that serves to frame behavior and outcomes. One's actions frequently and unavoidably shape, and are shaped by, the actions of others. Further, while individuals' objective functions almost surely include preferences for personal wealth accumulation, they also often include preferences for the welfare of others and/or conformance with norms of social and moral conduct" (p. 295).

[2] Formally, we define social status as the ranking a person holds in a hierarchy that is (1) socially recognized, (2) considered desirable, and (3) carries a sense of entitlement and privilege (Huberman et al. 2004).

the reporting process, to control for financial incentives, to directly measure narcissism using a psychometric scale, and to compare actual performance to reported performance.

The results of our experiment establish a link between narcissism and overreporting, but there are several important aspects to relation. First, while narcissism seems to induce participants to inflate reported performance, this is only true when participants view the task as important. Narcissists who do not view the task as important actually overreport less than participants who score low on narcissism. Second, settings that make social comparisons salient tend to induce a general tendency among participants to overreport, even after controlling for narcissism and despite there being no monetary incentives linked to social status. Additionally, we show that in a sequential reporting environment, narcissistic participants are prone to increase their level of misreporting when earlier reporting peers report relatively high performance. Lastly, our supplemental analysis of the components of narcissism shows that a particular class of narcissistic managers are most prone to misreporting. These results are intriguing because they suggest that it may be possible for firms to benefit from wealth-enhancing impact that narcissism can have on effort and performance while minimizing the negative impact that narcissism can have on performance reporting.

Our study offers several contributions to research in managerial accounting. First, our primary results show that narcissism and the desire for social status each act (in an independent manner) to limit the influence of preferences for honesty. While prior research has established the (largely positive) moderating influences of employees having various other-regarding preferences (e.g., Evans et al. 2001; Hannan, Rankin, and Towry 2006; Rankin, Schwartz, and Young 2008), our study demonstrates the dark side of using socially mediated rewards to motivate and control employees. Thus, we answer the call by Sprinkle (2003), but do so by

examining some of the countervailing forces that can arise in the presence of socially mediated rewards.

In addition, our results build on recent studies not only in managerial accounting, but also in finance, financial accounting, and auditing, which examine the relation between personality characteristics and performance reporting. For example, our results provide additional support to archival research that links narcissism to misreporting (Schrand and Zechman 2011) and are all the more important in light of recent research suggesting that perceived narcissism in managers is positively related to auditors' assessments of fraud risk and the scope of planned audit procedures (Johnson, Kuhn, Apostolou, and Hassell 2011).

In addition, our finding that misreporting increases when a manager feels challenged for social status could help explain recent empirical research showing that firms are more likely to meet or beat expectations when a higher proportion of their rivals have done so and that this is especially true for firms in competitive industries (Chin and Liang 2011). Interestingly, these findings raise the possibility that increasing transparency through public disclosure could have the counterintuitive effect of increasing, rather than decreasing, misreporting by inducing greater competition (cf. Maas and van Rinsum 2011).

In Section 2, we discuss prior literature and develop our hypotheses. Section 3 discusses our research design. Section 4 reports our results, and Section 5 concludes.

2. Prior Literature and Hypothesis Development

As demonstrated by a growing body of research, individuals are often motivated by factors other than money (Luft and Shields 2010). For example, several studies over the last decade have examined the extent to which managers exhibit willingness to report honestly, rather than being motivated solely by concerns for monetary wealth, as often assumed in agency theory (Baiman and Lewis 1989; Salterio and Webb 2006). Among other things, one empirical

regularity from this literature is that individuals acting in the role of agents often exhibit at least some preference for reporting honestly. Accordingly, principals can earn more money by factoring this non-monetary preference into their contracts rather than relying on a strictly "optimal" contract (Evans et al. 2001).

Extending this research, Hannan, Rankin, and Towry (2006) find that managers are also not simply honest or dishonest, but rather trade off the financial benefits of misrepresentation with the intangible utility they derive from appearing honest. This finding is consistent with recent work by Mazar, Amir, and Ariely (2008), who find that individuals are generally willing to be dishonest for financial gain, so long as the degree of dishonesty is not so great that it forces them to re-evaluate their self-concept of being an honest person (see also Hobson, Mayew, and Venkatachalam 2011). Additional research finds that the tradeoff between monetary gain and honest reporting can depend on a number of other factors, such as the degree to which an information system restricts a manager's ability to misreport (Hannan, Rankin, and Towry 2006) or the extent to which untruthful reporting impacts the monetary payoffs of others (Church, Hannan, and Kuang 2010; Mass and van Rinsum 2011).

As Luft and Shields (2010) note, there appears to be many non-monetary factors that can influence behavior, the causes and effects of which we do not yet fully understand. Consequently, Luft and Shields call for additional research to identify these factors and to understand how people value these objectives relative to monetary payoffs. In this paper, we focus on the relation between narcissism and performance reporting. We focus on narcissism, rather than other personality trait for two reasons. First, narcissism is a stable, measureable personality trait. More importantly, there is a growing literature linking narcissism to predictable patterns in managerial performance and misreporting (e.g., Maccoby 2000; Chatterjee and

Hambrick 2007; Duchon and Drake 2009; Amernic and Craig 2010; Schrand and Zechman 2011). In addition, we utilize a multi-agent setting, as do Towry (2003), Zhang (2008), Hannan, Rankin, and Towry (2010), and Mass and van Rinsum (2010), because many real-world performance reporting systems are specifically designed for relative performance evaluation. Accordingly, these reporting systems create opportunities for social comparison and, thus, a desire to pursue social status. Thus, our aim, in addition to examining narcissism, is to understand how the presence of social comparison and opportunities to pursue social status impact the average agent's reporting behavior, whether narcissistic or not.

2.1 The effect of narcissism on performance reporting

In traditional agency models, agents are viewed as perfect substitutes, and heterogeneity across their preferences, abilities, and levels of risk-aversion does not explain significant differences in actual firm performance. Any observed heterogeneity in behavior is assumed to reflect heterogeneity in the firm's monitoring mechanism, rather than heterogeneity in agent preferences (Bertrand and Schoar 2003). However, as Kachelmeier (2010) reminds, "[F]irms do not make decisions. Rather, people make decisions, and those decisions are shaped by the personalities of those involved." Accordingly, increasing attention has been directed to understanding the relation between manager personality characteristics and the choices managers make since these choices can have significant effects on firm performance (e.g., Boddy 2006; Duchon and Drake 2009; Amernic and Craig 2010; Brown, Rennekamp, Seybert, and Zhu 2011; Schrand and Zechman 2011).

Of increasing interest to researchers is the effect subclinical narcissism has on manager behavior (Maccoby 2000; Chatterjee and Hambrick 2007; Duchon and Drake 2009; Amernic and Craig 2010). While clinical narcissism is defined as a personality disorder, subclinical narcissism is viewed as a personality characteristic, possessed to some degree by many "normal"

individuals, and associated with both costs and benefits (Kets de Vries and Miller 1985; Maccoby 2000; Wallace and Baumeister 2002). Psychologists divide the elements of subclinical narcissism along two dimensions. The cognitive dimension is the more commonly recognized dimension and relates to narcissists' belief in their superior ability.[3] Less well-appreciated is the motivational dimension of subclinical narcissism. Specifically, narcissism engenders an intense need to have one's superiority reaffirmed. This reaffirmation must come from others, in the form of admiration, adulation, or other forms of attention given to the narcissist (Wallace and Baumeister 2002). Further, the narcissist's craving for admiration is continuous (Morf et al. 2000). The narcissist is not content with eventual praise, but rather needs to receive praise in frequent intervals (Chatterjee and Hambrick 2007). To obtain admiration, narcissists regularly strive to impress those whose opinion the narcissist values.

Moderating the relation between individual narcissism and individual performance is the opportunity for self-enhancement (Wallace and Baumeister 2002). Narcissists are keenly aware that some tasks offer more potential for garnering personal glory than other tasks. Wallace and Baumeister (2002) note that a task must be perceived by a narcissist as diagnostic of special achievement to be self-enhancing. They theorize and find that narcissists will exert themselves to garner public glory only when they perceive that a task has the potential to bestow glory. We build on this prior work, extending it to a performance *reporting* setting, and we hypothesize that a narcissistic manager will inflate *reported* performance when she believes reported performance is an important metric that is used to evaluate her skills as a manager, as stated formally below.

H1: Narcissistic managers will overreport more than non-narcissists when they view performance in that domain as important.

[3] Narcissists tend to believe they are superior in intelligence, creativity, competence, and leadership (see Chatterjee and Hambrick 2007).

While psychological research demonstrates that some individuals are prone to narcissism, opportunities for social comparison may similarly influence the reporting behaviors of non-narcissists. If so, then performance reporting systems that make opportunities for social comparison salient could alter the reporting behavior of non-narcissists as well, leading to an even broader set of implications for this line of research. To examine this possibility, we turn next to the more general tendency of individuals to pursue social status and how that might affect performance reporting, holding constant actual performance.

2.2 The effect of social status on misreporting

One reason that social comparisons could alter behavior is that economic incentives change with relative versus absolute performance evaluation (e.g., as when employing a tournament scheme rather than piecemeal compensation). However, we control for economic incentives and focus is on the impact of psychological utility (or avoiding disutility) from social comparison. Along these lines, research in social psychology finds that individuals feel social pressure to compare favorably with their peers (Asch 1955; Cialdini 2001; Festinger 1954). Because social comparisons lead to unfavorable comparisons for some, the process of social comparison can spawn feelings of envy and resentment (Tesser 1988). In fact, the notion that individuals have a desire to obtain social status dates back at least to Smith (1759).[4]

Economists have examined the economic implications of pursing social status (see Bolton and Ockenfels 2000; Coelho and McClure 1993; Congleton 1989; Kahneman and Thaler 1991; Robson 1992; Ng and Wang 1993). The common thread linking these economic models is that they explore what might happen when individuals derive utility from social status – namely, that status-seeking behavior could divert resources from their optimal use, thereby reducing the

[4] Smith (1759) refers to status as "place": "Of such mighty importance does it appear to be, in the imaginations of men, to stand in that situation which sets them most in the view of general sympathy and attention. And thus, place, that great object which divides the wives of aldermen, is the end of half the labours of human life."

overall welfare of the economy. However, because status is generally associated with power and future resources (Lin 1990, 1994; Thye 2000), the pursuit of status could still be individually rational. More recently, researchers in psychology (Huberman et al. 2004) and consumer behavior (Garcia et al. 2006) have investigated social status as not only a means to an end, but also as "an intrinsic component of an individual's utility function *in addition* to the pursuit of resources" (Huberman et al. 2004, 103).

Leveraging work in economics and social psychology, we contribute to managerial accounting by examining how social status, independent of the pursuit of monetary gain, affects performance reporting in a setting where individuals self-report their performance on a personally relevant task. Thus, while prior research in managerial accounting suggests that managers have preferences for honesty (Evans et al. 2001; Hannan, Rankin, and Towry 2006; Rankin, Schwartz, and Young 2008), we expect desires for social status to compete with these other non-monetary factors to influence managerial reporting behavior in settings that allow for social comparison – even after controlling for the influence of individual narcissism. In particular, we predict that participants in our reporting game will inflate reported performance when opportunities to achieve social status are more pronounced, as stated formally below:

H2: Increasing the salience of social status will increase overreporting.

Again, it is important to note that, as defined and examined in this study, social status conferred in period *t* does not translate into any sort of monetary compensation in future periods, nor is it associated with increased monetary compensation in the current period (which is solely a function of actual and reported performance, but not one's relative rank). One difficulty when using empirical real-world data is that social status measured in one period could lead to higher financial compensation in future periods without actually being desired by individuals in its own

right. Because our manipulation of social status has no impact on a manager's monetary compensation in any period, our experimental design allows us to make stronger inferences about participants' willingness to trade off reporting honestly with the pursuit of social status, independent of monetary compensation.

2.3 The effect of social status and narcissism in sequential reporting

Our research design allows us to examine, not only overreporting, but also the effects of narcissism and social status in a sequential reporting setting. More specifically, we examine whether narcissism and social status lead to predictable *changes from intended* performance reporting in a manner consistent with theory. Our interest in understanding this dynamic is that, despite the fact that agents often report performance in a multi-agent environment, very little is known about how seemingly small changes in the design of a performance reporting system affect a principal's ability to extract truthful reports from managers.

In theory, if status does not influence reporter behavior, then sequential and simultaneous reporting should lead to similar outcomes. However, if managers pursue status for its own sake, then we may see them respond more strongly to reporting pressures in a sequential reporting setting, where they can clearly see threats to social status prior to making their final reporting decision.

Related work from the consumer behavior literature provides some evidence that sequential reporting will affect the extent to which a manager will report honestly. In particular, Argo et al. (2006) ask participants of an experiment about their willingness to lie to an individual in a hypothetical situation where the participant is told to imagine that they paid a bit more or less than what the other individual paid for the same product. According to that study, participants report being more likely to lie when they paid relatively more than the other person than if they paid less. In that study, imagining how much another person paid for a similar

product creates an explicit benchmark for social comparison (though it does so in a hypothetical setting where there is no risk associated with misreporting). By analogy, in a sequential reporting environment, the preceding reports of other managers may be higher or lower than what a given manager was intending to report before seeing these preceding reports. If we observe managers systematically ratcheting up the degree to which they misreport, understanding the determinants of such behavior can provide additional evidence for the theory underlying our predictions.

Therefore, in the present study, we test not only whether challenges to social status matter, but also whether they interact with narcissism and the salience of social status to affect a manager's willingness to report their own performance honestly. To examine these questions, we gather two measures of reported performance. The first measure is the participant's prospective performance report. The prospective performance report is collected after each participant has completed the performance task but *before* any participant publicly reports performance. Thus, the prospective performance report is private, known only to the participant and the experimenter, and only reflects what participants *intend* to report publicly. The second measure is the public performance report. The public performance report is reported publicly to all peers and does not have to equal the prospective report. The order of public reporting is determined randomly. (See Figure 1 for more detailed timelines of the reporting process).

Because narcissists see themselves as better than others (Emmons 1984; Emmons 1987; Raskin and Terry 1988) and want to be viewed as the best in any situation they view as diagnostic of their ability (Wallace and Baumeister 2002), we expect the tendency to respond to these status challenges to be exacerbated when participants are narcissistic and view performance as important. In other words, in settings in which the prospective report of later reporting participants is lower than the public report(s) of earlier reporting participant(s), we expect later

reporting participants with higher levels of measured narcissism to issue more dishonest public reports, relative to their prospective reports, as stated formally below:

H3: Managers who are narcissistic will systematically increase their reported performance over their prospective reports when they view performance as important and their prospective reports have been exceeded by an earlier reporting peer.

Extending H2 to a sequential setting, we similarly predict that observing relatively high public reports of other managers will cause a given manager to increase the extent to which they overreport their own performance, especially when the salience of social status is high, as stated formally below:

H4: Increasing the salience of social status will cause later reporting managers to systematically increase their reported performance over their prospective reports, especially when their prospective reports have been exceeded by an earlier reporting peer.

3. Methodology

3.1 Participants and Design

Participants were 45 students enrolled in graduate business classes at a large university. The median participant age was 23 and the majority of participants were accounting majors (93%). Participants were randomly assigned to one of two between-participant conditions (*Low vs. High Status*). In addition, we measure participant levels of *Narcissism* and *Task Importance*, which we describe in more detail in Section 3.3.

3.2 Procedures

3.2.1 Instructions

Upon arrival to the experimental lab, we randomly assigned participants to a cohort with two other participants. Each participant was given an identifying number. Participants sat in partitioned computer stations adjacent to the other members of their cohort. After the experimenter read the instructions, participants were quizzed on their understanding of the

experiment. Participants did not communicate with members of their cohort during the experiment.

3.2.2 Reporting Game

Our reporting game captures key characteristics of the performance reporting process while controlling for financial incentives. Our experimental design also allows us to directly observe actual performance, intended misreporting, and actual misreporting. Participants in our experiment (1) perform a task, (2) submit a prospective report of task performance to the experimenter, and (3) publicly report task performance to two other group/cohort members in a randomly determined, sequential manner. Following prior managerial accounting experiments on honesty (e.g., Baiman and Lewis 1989; Evans et al. 2001), participants are given a financial incentive to report a score higher than their actual score. This game repeats eight times (8 periods; see Figure 1). Importantly, participant pay does *not* depend on the actions of others. Rather, participant pay is a function of the reported score, less a penalty amount. We compute the penalty amount as a probabilistic function in which the likelihood of penalty realization increases with the level of reported score misreporting.

(Figure 1 about here)

Participants are randomly assigned to one of three divisions within a reporting unit (called cohorts for purposes of this exposition). To reflect this, each participant in the cohort is given a number (i.e., 1, 2, or 3), and all participants are aware of which group member holds which number. The reporting game starts with the announcement of the participants' endowments. Endowments are homogenous across participants and periods. Next, participants answer computer-administered questions similar to those on the Graduate Management Admission Test (GMAT). Specifically, participants have four minutes to answer up to 15 quantitative problem solving, quantitative data sufficiency, verbal sentence correction, and

verbal critical reasoning GMAT-type questions. Participants are familiar with these questions, having answered similar questions on the GMAT for admission into graduate school. Further, many participants likely attach importance to this task since the GMAT is a key input into the decision to accept someone into a graduate business program. Prior research has found that personal task relevance (the importance of the task domain) increases the importance of social comparison (Argo et al. 2006). After time has expired, the computer scores participant responses and each participant sees only her respective score (*Actual Score*).

Next, participants privately enter the score they intend to report (*Prospective Report*), but we allow them to report a different score, if they wish, when they submit their public report. Only the participant and the experimenter see this prospective report; it is never shown to the other participants in the cohort. All participants generate prospective reports simultaneously.

In a randomly determined, sequential order that changes each period, participants then publicly report their score (*Public Report*). More specifically, the participant chosen to report first submits his/her reported score, and that report is shown to all three participants in the cohort, along with the reporting player's identifying number (1, 2, or 3). Next, the participant selected to report second publicly reports his/her score, and this score is publicly displayed to the cohort. Finally, the third player reports his/her public score. By examining the reporting behavior of later reporting participants, we can examine whether observing the public reports of others causes participants to systematically alter how much they ultimately misreport relative to what they intended to misreport.

3.2.3 Reporting Game Incentives

A participant's payoff is a function of their actual score, their reported score, and the absolute value of the difference between these two (misstatement amount). In each period, a

participant faces a probabilistic chance of being audited and incurring a penalty.[5] The probability of being audited and the magnitude of the penalty both increase with the amount of the participant's misreporting (if any). Determination of whether a participant's score is audited is made by comparing a random draw from a uniform distribution to the participant's respective audit probability (which is based on the amount of misreporting). In any period, participants not audited are paid based on the amount they report. If a participant is audited, the participant is paid based on the amount of her actual score, less a penalty. Based upon the parameters we use, the participants' expected payoff in any one period is a quasi-concave function that reaches its maximum at a reported level about 3 units above the actual score. In other words, a risk-neutral, expected-value-optimizing participant, who cared only about monetary payoffs, would overreport by 3 units each round. Participants learn all of these details from working several examples, and by discussing a comprehensive payoff table that they retain throughout the study.

3.2.4 Feedback

After each period, participants are reminded of the following information for that period: (i) the number of questions they answered correctly, (ii) the probability of an audit (though not the actual realization), (iii) the endowment amount, and (iv) the potential payoff contingent upon the realization of the audit. Participants are informed about the results of the audit and their realized payoff after every four periods. In addition, at the end of every four periods they are also provided with the following summary information from each of the prior four periods: (i) the number of questions they answered correctly, (ii) their reported score, (iii) their potential payoffs contingent upon the realization of the audit, (iv) the probability of an audit, and (v) their realized payoff. Additionally, at the end of every four periods, the results of each audit are displayed to

[5] "Audit," "penalty," and other contextually rich words are used here for expositional purposes but were not used in the experimental materials. Instead, we used context-neutral words such as good or bad outcome.

all participants. This is done by publicly displaying to all participants the actual and reported scores of each participant that is audited.[6]

3.3 Independent Variables

3.3.1 Status

Our study manipulates the salience of social status provided to high reporters, between subjects, and measures each participant's narcissism. We manipulate the salience of social status (*Status*) by doing the following three things in the *High Status* conditions. First, we rank *Public Report* in descending order within each cohort. Thus, reported scores in each period are ranked after the second participant in the cohort submits his/her score and again after the third participant reports his/her score. Second, in each period, after the final *Public Report* is submitted and all three scores are ranked and displayed, the participant who submitted the highest *Public Report* is acknowledged with the words "Congratulations Player #!" in large letters on each participant's screen. Finally, the other two participants are encouraged to applaud the highest reporting individual for achieving the high score. Prior research has used similar techniques to increase the salience and importance of experimental rankings (see Ball et al. 2001 and Huberman et al. 2004).

In the *Low Status* condition, *Public Reports* are publicly displayed but are not ranked, nor are they acknowledged or applauded. Thus, even in the *Low Status* conditions social status is never completely absent. We make this design choice, in part, because it holds constant across conditions the amount of information each player receives about their peers' reported performance, which would not be the case if, for example, the *Low Status* condition provided no feedback about the reported performance of one's peers.

[6] There is little evidence that not informing participants of the realization of the audit after each period affected their responses. *T*-tests comparing the means of our dependent variables in the first four periods versus the second four periods of the experiment find no statistical differences (all *p*-values are greater than 0.74).

3.3.2 Narcissism

Prior to participation in the experimental reporting game, we measure participant narcissism via an online survey. Participants complete a short-form psychometric narcissistic measure called the Narcissistic Personality Inventory (NPI; Raskin and Hall 1979; Raskin and Terry 1988). This is a 40-item measure that captures participants' relative level of narcissism, and is the most commonly used way to assess subclinical narcissism (Chatterjee and Hambrick 2007). The online survey also measures participants relative risk aversion (Holt and Laury 2002) and desire for control (Burger 1992), along with demographic information.[7] Participants received $5 for completion of the survey that took an average of 18.33 minutes to complete.

3.3.3 Task Importance

Finally, in the post-experimental questionnaire we measure a variable called *Task Importance*. Participants answered the following question on an 11-point Likert scale: "How important was it to you to score well on the GMAT questions?" for which the endpoints were 0 = Not important at all, 10 = Extremely important. As discussed above, we expect narcissism to have its greatest effect on reported performance for participants who feel the experimental task is important or self-enhancing (Wallace and Baumeister 2002). Wallace and Baumeister (2002) note that a task must be perceived by the narcissist as being diagnostic of special achievement to be self-enhancing and affect the performance of high-narcissists. Thus, the greater the importance an individual attaches to a task, the more likely they are to see high performance on that task as garnering them personal glory and respect.[8]

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[7] The results presented below are qualitatively similar when including risk aversion and desire for control as covariates in the analysis.

[8] *Task Importance* is a context specific measure of the importance of this specific experimental task to each participant. Thus, we measure this variable after participants have experienced the experimental task. We investigate the possibility that participants' performance on the experimental task and/or official GMAT score influenced their *Task Importance* score. We find that *Task Importance* is not correlated with actual performance on the experimental task or self-reported actual GMAT percentile score (participants were asked to report their percentile score on the

3.4 Compensation

After the last period of the experiment, participants completed a short post-experimental questionnaire and were paid in private. We paid participants for each of the eight periods with a translation rate of $0.1035 for each experimental dollar earned, plus a $10 show up fee. Average total pay for the experiment was $22.61. The experiment lasted about one and one-half hours on average.

4. Results

4.1 Manipulation Checks

Participants were asked two questions to assess their understanding of the experiment. Eighty-six percent and 88 percent of participants in the *Low Status* and *High Status* conditions answered the following question correctly, "Strictly speaking (think back to the table illustrating how pay is determined), does the amount you earned from this experiment depend on the two other players?" These means are not statistically different ($t = 0.17$, $p = 0.86$) and indicate that a large majority of participants in both conditions understood that their pay was not based upon the actions of others.[9]

4.2 Descriptive Statistics

Table 1 contains a summary of the key variables used in our analyses. As described in Table 1, each of our variables is measured continuously with the exception of *Status*, which is an indicator variable. In Table 2, we report the overall means for each of our continuous variables and the conditional means for these variables, as a function of whether *Status* is *High* or *Low*.

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real GMAT). Additionally, including performance on the task and actual GMAT score as covariates does not alter the inferences from the results of our primary analysis. Finally, we find that *Task Importance* is not correlated with relative public report performance. The concern here is that a person's public report may be frequently lower than that of others in their cohort, skewing that person's view of the importance of the GMAT question. However we create a variable called "Reporting Position," which is the average rank of each person's *Public Report*, relative to the other two people in that person's cohort. We find that this variable is also not correlated with *Task Importance*.

[9] The results reported below are qualitatively similar when we exclude participants that answered the manipulation check incorrectly.

(Table 1 about here)

Table 2 reveals that the average participant overreports his/her publicly reported score by 3.03 (*Public Report* minus *Actual Score*). *Overreporting* is statistically higher when *Status* is high (3.93) versus when it is low (2.02, $t = 8.12$, $p < 0.01$), consistent with H1. The average participant's public report is higher than their prospective report by 0.48. *Report Change* is not higher when *Status* is high (0.49) than when it is low (0.48) ($t = 0.06$, $p = 0.95$). Consistent with the concept of random assignment of participants, *Narcissism* is not significantly different between levels of *Status* ($t = 0.57$, $p = 0.57$).

(Table 2 about here)

Next, we examine whether the order of reporting was randomly assigned in an effective manner. As expected, *Actual Score*, *Narcissism*, and *Task Importance* do not vary significantly across the ordered participants (not tabulated).

4.3 Hypotheses Tests for Overreporting

While informative, the descriptive statistics reported above do not control for all the interactions of the model, repeated measures, or within-group dependence. Next, we conduct an analysis that examines the main and interactive effects of our three variables of interest (*Narcissism*, *Task Importance*, and *Status*) on *Overreporting*. Because we collect one data point from each participant in each period, we encounter two forms of dependence in our error terms – dependence from repeated measures taken on each individual and dependence within our groups of three participants (cohorts). This dependence violates the assumption of independence in an ANOVA-based model, and can result in Type 1 or Type 2 errors (Yandell 1997). Judd et al. (1995) note that social science researchers often fail to consider additional groupings in their data (other than repeated measures), which can lead to incorrect inferences. To avoid these problems we use a mixed-effects, repeated-measures model which controls for both of these dependencies

(Littell et al. 2006; SAS Institute Inc. 2010; Ying and Liu 2006). Consistent with the directional nature of our predictions, reported p-values are one-tailed unless stated otherwise.

Table 3, Panel A reports the results of our analysis for the dependent variable *Overreporting*.[10] H1 predicts that higher levels of narcissism will lead to greater overreporting when narcissistic participants view the task as important. Thus, H1 predicts an interaction between *Narcissism* and *Task Importance*.[11] As our results show, we find significant main effects for *Narcissism* and *Task Importance* ($F = 4.19$, $p = 0.02$; $F = 3.03$, $p = 0.04$, respectively), which are qualified by a significant interaction ($F = 4.72$, $p = 0.02$). The coefficient of this interaction, 0.03, is positive and significantly greater than zero ($t = 2.89$, $p < 0.01$, untabulated). The sign and significance of the interaction and the interaction analysis (see Table 3, Panel B for more on the sign of this interaction) suggest that, as task importance increases, the effect of narcissism on the tendency to overreport increases, consistent with H1.

In addition, we find that the effect of *Status* is significant ($F = 4.51$, $p = 0.03$), consistent with H2. This result indicates that, even after controlling for narcissistic tendencies, the salience of social status still causes participants, on average, to inflate their reported performance, despite receiving no monetary payment for their relative rank and despite the risk that they will incur penalties for doing so. No other variables or interactions are significant in this analysis.

(Table 3 about here)

4.4 Hypotheses Tests for Report Change

[10] Using several statistical analyses (the hat matrix, studentized residual, and Cook's D—Stevens 1984), we identify four outlier observations. Upon further inspection, all four observations come from one participant during the first four periods of the experiment. These observations appear to be very unrepresentative of the rest of the data—both in terms of extremeness and variability across periods. Therefore, we delete these observations for all of our analyses. Inclusion of these observations reduces the statistical significance of our results for *Overreporting* (*p*-value > 0.10), but does not change our inferences with respect to *Report Change*.

[11] We interact *Narcissism* with *Task Importance* rather than with *Status* because *Task Importance* more closely fits the relevant theory of Wallace and Baumeister (2002). They note that perception of a task being diagnostic of ability is a situational factor (p. 820). Thus, *Task Importance* more closely fits the theory as it is a situation specific measure of the importance of this specific experimental task to each participant.

Next, we examine the determinants of *Report Change.* Because a sequential reporting environment makes salient threats to achieving social status, we expect to see managers increase their misreporting when a manager's private *Prospective Report* is challenged by a preceding public report. We also expect this effect to interact with of our variables of interest (*Narcissism*, *Task Importance*, and *Status*). To examine this question, we use the *Report Change* dependent variable discussed above, which subtracts the participant's *Prospective Report* from his/her *Public Report*. Recall that the *Prospective Report* captures the score that participants intend to report publicly. *Report Change*, therefore, measures the unexpected change that occurs when a participant reports publicly.

Table 4 reports the analysis of the incremental effects of our variables of interest (*Narcissism*, *Task Importance*, *Status*, and *Challenged*) on *Report Change* to test H3 and H4. As shown in Panel A, the main effects of *Narcissism*, *Task Importance*, and *Status* are not significant ($F = 0.70$, $p = 0.20$; $F = 1.45$, $p = 0.11$; $F = 0.01$, $p = 0.46$, respectively). However, when we look at the interaction of these factors with *Challenged*, we find a significant three-way interaction between *Challenged*, *Narcissism*, and *Task Importance* ($F = 1.74$, $p = 0.09$), indicating that narcissistic managers who value performance are especially likely to respond to threats to achieving status by increasing their degree of intended misreporting, consistent with H3. Although we find little influence of *Status* on *Report Change*, this appears to be due to the fact that *Status* similarly increases both the *Prospective Report* ($t = 4.31$, $p < 0.01$) and the *Public Report* ($t = 4.70$, $p < 0.01$).

(Table 4 about here)

Next, we repeat our analysis of *Report Change* looking only at the last half of the experiment. As shown in Panel B, we find strong support for H4 in the latter half of the

experiment. In particular, we find a main effect for *Challenged* ($F = 4.87$, $p = 0.01$) that is qualified by two-way interactions with *Narcissism* and *Task Importance* ($F = 2.60$, $p = 0.05$; $F = 2.44$, $p = 0.06$, respectively) and a three-way interaction ($F = 1.90$, $p = 0.09$). In contrast, we again find little evidence that the effect of *Status* on *Report Change* is qualified by an interaction with *Challenged*. Comparing all of our results for H3 and H4, it appears that, while the salience of social status influences misreporting on average, the way a person responds to being challenged for social status has less to do with the salience of social status and more to do with their individual personality traits.

4.5 Additional Analysis on Overreporting – Payoff Maximizing Report Level

As noted above, *Overreporting* is computed as the difference between the *Public Report* and *Actual Score* on the GMAT questions. However, as discussed in Section 3.2.3, participants have financial incentives to overreport. Thus, *Overreporting* does not capture whether participants are reporting at a level higher than the level that would maximize their expected payoff. To capture whether participants are reporting at a payoff maximizing level, we construct a dependent variable, *Reporting Aggressiveness*, by subtracting the report level that maximizes expected payoff from the *Public Report.* Thus, a positive (negative) value for this dependent measure indicates that participants have reported at a level above (below) the level needed to realize the maximum expected payoff, while a 0 indicates that participants' reports maximize their expected payoff. Our parameters are set such that an *Overreporting* level of 3 maximizes expected payoff in all cases except for those in which the *Actual Score* is 13, 14, and 15. In these three cases, a *Public Report* value of 15 (*Overreporting* level of 2, 1, and 0, respectively) maximizes expected payoff.

Untabulated results show that the overall mean of this dependent measure is 0.03, which is insignificantly different from zero ($t = 0.20$, $p = 0.84$). This indicates that participants report at

a level that maximizes their expected payoff on average. However, Table 5, Panel A, shows that, as *Task Importance* and *Status* increase, participants report more aggressively, resulting in lower expected utility (derived from compensation). In Panel B, we see that the effect of *Task Importance* is really being driven by the behavior of narcissists. More specifically, narcissists who view the task as important report more aggressively than even the profit maximizing amount of misreporting, whereas narcissists who view the task as unimportant not only report more truthfully than their high narcissistic counterparts, they also report more truthfully than their low narcissistic counterparts and at amounts below the profit maximizing level of misreporting.

(Table 5 about here)

4.6 Additional Analysis on Components of Narcissism

While narcissism may contribute, on average, to the emergence and success of a leader (Brunell et al. 2008), studies of narcissism find that aspects of narcissism can be separated into those that may be healthy and potentially beneficial as opposed to maladaptive or harmful to coworkers, subordinates, and the company as a whole. In particular, research has investigated the subcomponents of the NPI psychometric measure that we use in our study (Emmons 1984; Emmons 1987; Kubarych, Deary, and Austin 2004; Raskin and Terry 1988). Drawing on this research, we supplement our main findings with an analysis of the components of narcissism more closely related to the darker aspects of pursuing socially mediated rewards.

The NPI index can be broken into four components: (1) leadership/authority, (2) self-absorption/self-admiration, (3) superiority/arrogance, and (4) exploitativeness/entitlement (Emmons 1984, 1987). This research links leadership/authority to healthier personality characteristics, such as extraversion, warmth, and social boldness, and links the other components to more negative traits. For example, self-absorption/self-admiration and exploitativeness/entitlement are considered to be maladaptive and harmful to interpersonal

relationships. As such, these subcomponents might be more strongly associated with a tendency to misreport.

To test this possibility, we correlate our primary dependent measure, *Overreporting*, with Emmons' (1987) four factors. These results (not tabulated) show that self-absorption/self-admiration is positively correlated with *Overreporting* ($p = 0.04$). Interestingly, we also find that the positive side of narcissism, (i.e., leadership/authority), rather than being unassociated with reporting behavior, is *negatively* associated with *Overreporting* ($p = 0.03$). No other components are significant.

In a multivariate test, we individually replace *Narcissism* in our analysis of *Overreporting* with each of Emmons' four subcomponents and run four separate models (not tabulated). We find that all of the subcomponents are at least qualitatively similar to the results presented in Table 3. The exception is the model which includes exploitativeness/entitlement. In that analysis, exploitativeness/entitlement also interact with *Status*, a result which did not appear in any other analysis. Overall, we find that the model with the best fit is the one that replaces *Narcissism* with exploitativeness/entitlement, which is interesting given that this is the component considered most maladaptive by Emmons.[12] To summarize, these results are consistent with misreporting in our study being driven by the "dark side" of narcissism.

5. Conclusion

In this study, we examine whether an innate personality characteristic (narcissism) and the salience of social status affect the honesty of self-reported performance reports. Our results show that agents with higher levels of narcissism are also more likely to overreport their own performance, but only when they place personal importance on performance in the domain being

[12] The best fit is determined in these SAS proc mixed models using the Akaike and Bayesian information criterion (Littell et al. 2006).

reported. Second, our results suggest that, even though social status carries no monetary consequences, increasing the salience of social status induces even non-narcissistic individuals to increase the extent to which they overreport their own performance. Finally, our results suggest that narcissistic individuals who view performance as important respond to the public reports of others by systematically increasing the extent to which they overreport. This latter finding is especially pronounced when the prior reports of others present a clear threat to a narcissistic individual's plan for achieving social status.

Our results, therefore, suggest that a stable personality trait, narcissism, is positively associated with overreporting performance. Prior studies examining how personality characteristics affect the reporting of earnings by executives (Bamber et al. 2010) and the reporting of budgetary estimates by internal managers (Evans et al. 2001) note that, while financial incentives are important, personality characteristics appear to be significant as well. Our results both complement and extend these findings. Consistent with the tenor of Baiman and Lewis (1989), we show that, on average, individuals overreport performance by an amount that is optimal (from a payoff maximizing perspective). However, our results suggest that future research examining misreporting and the effect of preferences for honesty on performance reporting should also consider the influence of individual personality traits, such as narcissism.

Second, we contribute to recent studies examining discretionary reporting choices managers make in sequential reporting environments. Recent empirical studies in accounting have shown associations that suggest the discretionary reporting choices managers make are not independent of the reporting choices made by other "peer" firms. We contribute to this stream of literature by using the comparative advantage of an experimental design and directly linking a measured personality characteristic, narcissism, to the amount of performance overreporting

instigated by an earlier reporting peer. These results are important because they suggest that, when reward systems capture performance measures that are relevant to a person's skills and sense of worth (which should be the case), they are also likely to increase the extent to which some individuals engage in overreporting for purely psychological reasons.

Finally, our study has implications for both financial and managerial accounting. First, our results suggest that the social status bestowed to executives who report high earnings has a significant motivational element and so may be positively associated with executives inflating reported earnings. This implication is significant because the social prominence and influence of successful CEOs has risen dramatically over the past fifteen years. Correlated with this increase in social prominence is an increase in executive compensation and the perception that executives engage in earnings management to inflate their financial compensation. Our results show that the non-financial social prominence correlated with high financial compensation may also contribute to executive's propensity to inflate earnings. In a similar vein, there has also been an increase in the use of cashless perquisites within firms as a way to motivate non-executive employees. Our results suggest that, to the extent that these perquisites convey social status, individuals may inflate the performance they report to be awarded these perquisites.

In addition, our experimental findings can help shed light on two archival findings. First, Schrand and Zechman (2011) find that fraud firm executives (compared to misreporting executives) are more likely to exhibit evidence of narcissism. While it is difficult to carefully measure degrees of narcissism in an archival setting, our study provides complementary evidence on the link between narcissism and misreporting. These findings are especially important because perceived narcissism among managers has recently been shown to have a significant impact on auditors' assessments of fraud risk and on the scope of their planned audit

procedures (Johnson et al. 2011). Second, our findings contribute to empirical research on meet or beat firms. Recent research suggests that firms are more likely to meet or beat expectations when a higher proportion of their rivals have done so and that this is especially true for firms in competitive industries (Chin and Liang 2011). While this might be the result of differences in real economic performance, our results suggest that being challenged for social status in a sequential setting leads to an increase in misreporting and, at least in our setting, no change in real performance. Future research could, therefore, attempt to separate the extent to which the findings of Chin and Liang (2011) are due to earnings management and/or fraud, as opposed to changes in economic performance.

One implication of our findings is that increasing transparency through public disclosure could have the counterintuitive effect of increasing, rather than decreasing, misreporting by inducing greater competition. These findings can be contrasted with recent work by Maas and van Rinsum (2011). In their study, they find that increasing transparency, perhaps by triggering a social norm for honesty, results in lower misreporting than when transparency is low. One key difference between their study and ours is that, in their experimental setting, the salience of social status is relatively low in all experimental conditions, which might explain why transparency seems to trigger a norm for honest reporting, rather than inducing greater competition. Given the stark difference in our results, a potentially fruitful area for future research could be to explore which types of environmental or institutional features trigger social norms and which induce implicit competition in multi-agent settings.

Outside of accounting, our results contribute to the study of narcissism, social comparison, and social status in the economics and psychology literature. Prior studies in these areas have focused on the effects of narcissism and social status on *actual* performance. We

show that these elements contribute to predictable patterns of *reported* performance in settings in which the participant cares about the task. Given that discretion and subjectivity are common in real-world settings, our results suggest that narcissism and social status will have predictable effects on reported performance. The documented effects are even stronger in settings in which the individual has narcissistic qualities and is self-reporting performance of a task that the individual views as important. Along these lines, future accounting research may wish to examine whether the level of reporting discretion allowed interacts with narcissism and social status. While managers have reporting discretion over many accounting variables, they have more discretion over some relative to others. Thus, understanding the interactive effects of these variables with reporting discretion is important to all stakeholders in the company.

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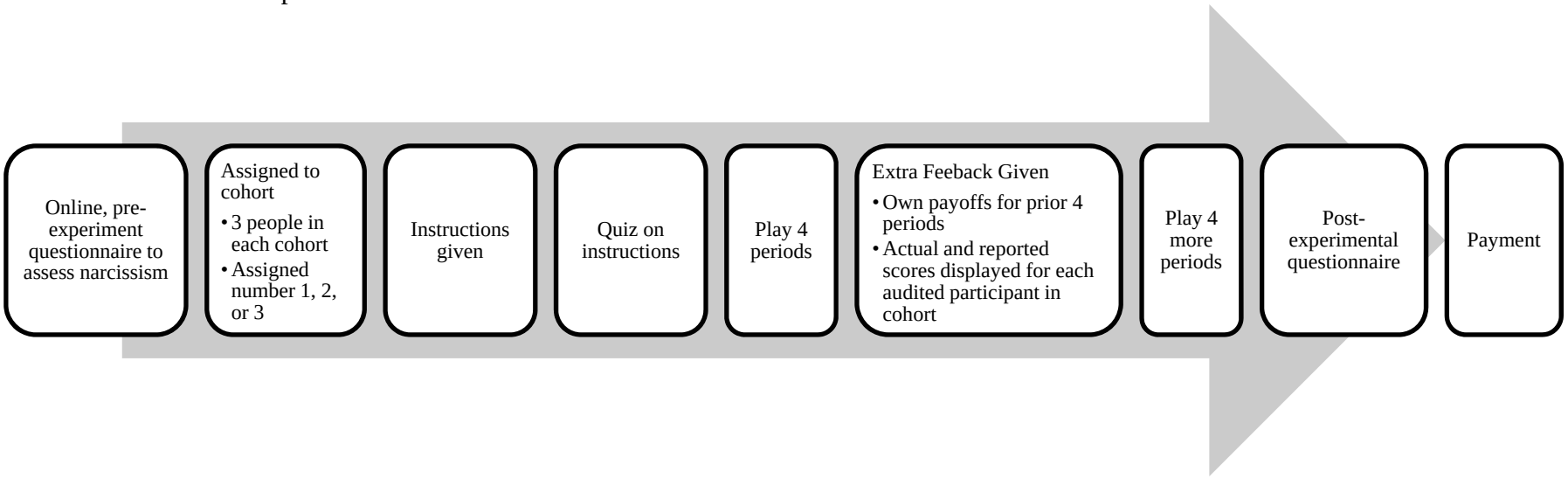
FIGURE 1
Experimental Timeline

Panel A: Timeline of Experimental Procedures



Panel B: Timeline of One Experimental Period

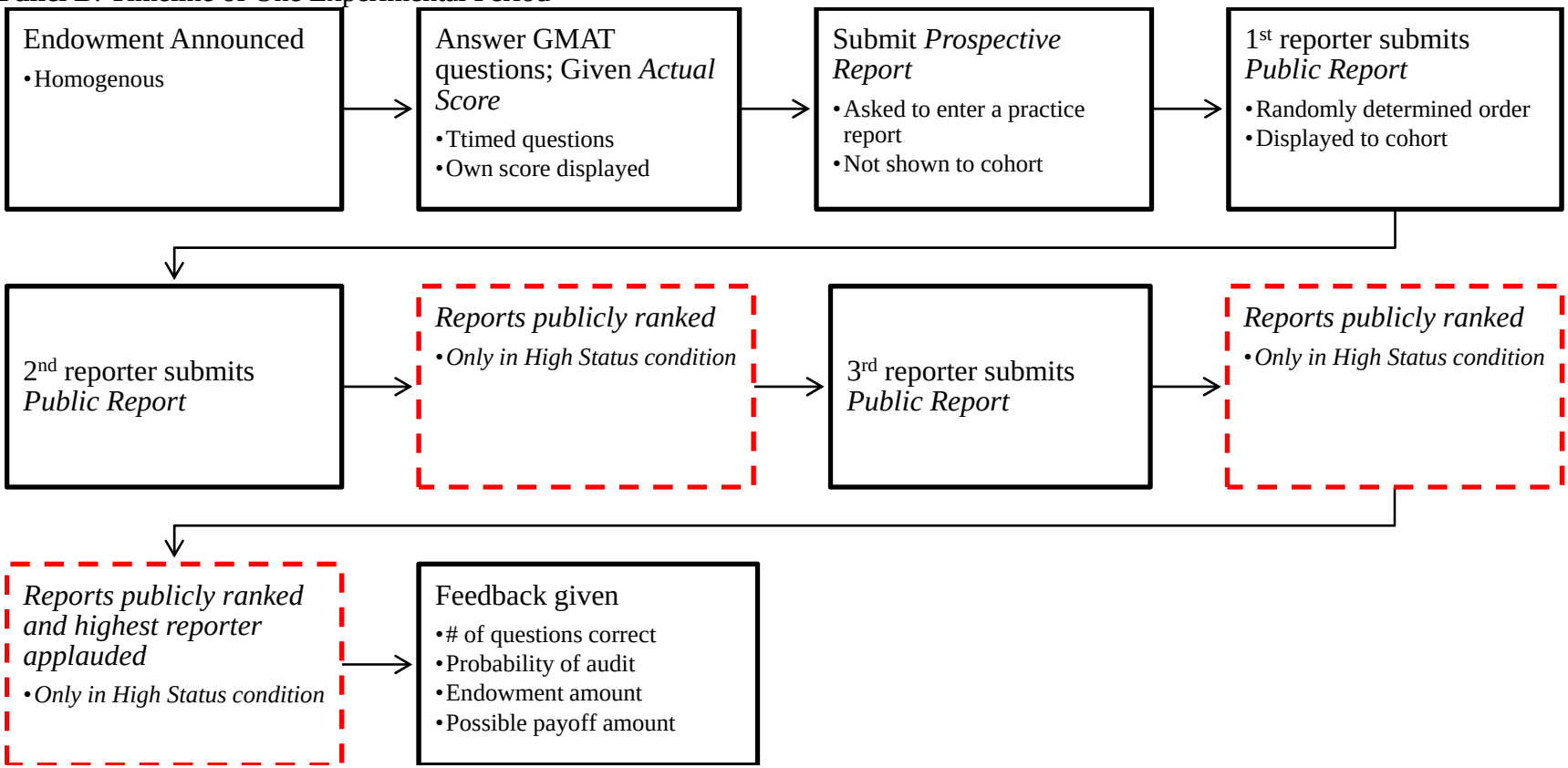


TABLE 1
Variable Definitions

Actual Score	*Actual Score* is the number of GMAT-type questions answered correctly by the participant in each period.
Prospective Report	In each period, participants report two scores that need not equal their *Actual Score*. Before any public reports are made, each participant simultaneously reports a private *Prospective Report*, which is known only to the participant and the experimenter and which does not affect their compensation.
Public Report	The second report a participant makes, which need not be equal to their *Prospective Report*, is displayed publicly. The order of public reporting is randomly determined each round.
Overreporting	The difference between the participant's *Public Report* and *Actual Score* from answering GMAT questions.
Report Change	The difference between the participant's *Public Report* and *Prospective Report*.
Status	In the *High Status* condition, the *Public Report* variable is publicly ranked from highest to lowest, after which the highest reporter is both congratulated and applauded. In the *Low Status* condition, *Public Reports* are disclosed, but not ranked. Nor is the highest reported specifically acknowledged.
Narcissism	Measured using the Narcissism Personality Inventory.
Task Importance	Measured as participants' answer to the following question on an 11-point Likert-type scale as part of the post-experimental questionnaire, "How important was it to you to score well on the GMAT questions?" where 0 = Not important at all, 10 = Extremely important.
Challenged	An indicator variable equal to 1 when the *Prospective Report* of a given participant is lower than or equal to the *Public Report* of a preceding reporter and equal to 0 otherwise.

TABLE 2
Descriptive Statistics

Mean (Std Dev) Conditional on *Status*

Variable	Low Status	High Status	Overall
Overreporting	2.02 (1.78)	3.93 (2.54)	3.03*** (2.41)
Report Change	0.48 (1.94)	0.49 (2.10)	0.48 (2.02)
Narcissism	16.81 (5.67)	16.45 (6.21)	16.62 (5.96)
Task Importance	5.59 (3.14)	6.47 (2.87)	6.06*** (3.03)
Prospective Report	5.92 (3.08)	7.36 (3.37)	6.68*** (3.31)
Public Report	6.39 (2.89)	7.85 (3.23)	7.16*** (3.15)
Actual Score	4.38 (2.03)	3.92 (2.32)	4.13** (2.19)

See Table 1 for variable definitions.

***, **, * indicate statistical significant at 1%, 5% and 10% levels in two tailed test of differences between high and low *Status* subsamples.

TABLE 3
The Determinants of Overreporting

Panel A: Determinants of *Overreporting*

Source of Variance	DF	F-Stat	P-Value
Narcissism	1	4.19	**0.02**
Task Importance	1	3.03	**0.04**
Status	1	4.51	**0.03**
Narcissism × Task Importance	1	4.72	**0.02**
Narcissism × Status	1	1.71	0.19
Status × Task Importance	1	0.92	0.34
Status × Narcissism × Task Import	1	0.66	0.42

Panel B: The Effect of *Narcissism* across Levels of *Task Importance*

Dependent Variable: *Overreporting*

Level of *Task Importance*	Coefficient on *Narcissism* Conditional on Level of *Task Importance*
Mean – Std Dev = 3.02	-0.053**
Mean = 6.06	0.019
Mean + Std Dev = 9.09	0.936***

Dependent Variable: *Report Change*

Mean – Std Dev = 2.50	-0.047
Mean = 5.63	0.031
Mean + Std Dev = 8.76	0.108***

The regression used for the coefficients reported in Panel B uses *Status*, *Narcissism*, *Task Importance*, and *Narcissism* × *Task Importance* as independent variables (Hayes and Matthes 2009; Jaccard and Turrisi 2003). See Table 1 for variable definitions. P-values in **bold** are one-tailed. ***, **, * indicate statistical significant at 1%, 5% and 10% levels, respectively.

TABLE 4
The Determinants of Report Change

Panel A: Determinants of *Report Change* – All Periods

Source of Variance	**DF**	**F-Stat**	**P-Value**
Narcissism	1	0.70	**0.20**
Task Importance	1	1.45	**0.11**
Status	1	0.01	**0.46**
Narcissism × Task Importance	1	1.39	**0.12**
Narcissism × Status	1	0.09	0.76
Status × Task Importance	1	0.01	0.93
Status × Narcissism × Task Import	1	0.13	0.72
Challenged	1	1.55	**0.11**
Challenged × Narcissism	1	0.74	**0.20**
Challenged × Task Importance	1	1.50	**0.11**
Challenged × Status	1	0.29	**0.29**
Challenged × Narcissism × Task Import	1	1.74	**0.09**
Challenged × Narcissism × Status	1	0.10	0.75
Challenged × Status × Task Import	1	0.01	0.92
Challenged × Narcissism × Task Import × Status	1	0.02	0.87

Panel B: Determinants of *Report Change* – Periods 5 to 8 Only

Source of Variance	DF	F-Stat	P-Value
Narcissism	1	0.12	**0.36**
Task Importance	1	0.35	**0.28**
Status	1	0.00	**0.49**
Narcissism × Task Importance	1	0.81	**0.18**
Narcissism × Status	1	0.00	1.00
Status × Task Importance	1	0.00	0.99
Narcissism × Task Import × Status	1	0.00	0.97
Challenged	1	4.87	**0.01**
Challenged × Narcissism	1	2.60	**0.05**
Challenged × Task Importance	1	2.44	**0.06**
Challenged × Status	1	0.78	**0.19**
Challenged × Narcissism × Task Import	1	1.90	**0.09**
Challenged × Narcissism × Status	1	0.28	0.60
Challenged × Status × Task Import	1	0.42	0.52
Challenged × Narcissism × Task Import × Status	1	0.13	0.72

See Table 1 for variable definitions. P-values in **bold** are one-tailed.

TABLE 5
Profit Maximizing Behavior

Panel A: Levels of *Reporting Aggressiveness*

Independent Variable	High	Low	Difference
Narcissism	-0.26	0.25	0.51**
Task Importance	0.61***	-0.49***	1.10***
Status	0.93***	-0.98***	1.91***

Panel B: *Reporting Aggressiveness* Conditional on *Narcissism* and *Task Importance*

	Task Importance		
Narcissism	**High**	**Low**	**Difference**
High	1.27***	-1.33***	2.60***
Low	0.20	0.30	-0.10
Difference	1.07***	-1.63***	

This table examines profit maximizing behavior conditional on *Narcissism*, *Task Importance*, and *Status*. *Reporting Aggressiveness* is equal to *Overreporting* minus 3. See Table 1 for other variable definitions. ***, **, * indicate statistical significant at 1%, 5% and 10% levels, respectively.