

Self-regarding disposition as a fraud risk-factor and its relationship with narcissism

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Following the lead from an interactionist fraud model, we examine whether self-regarding (SR) disposition is positively associated with vulnerability to indulge in a temptation, which could lead to fraud. This study attempts to test this link, which is central to a recently developed disposition-based fraud model (DFM). Moreover, dispositional traits could in some ways be comparable to narcissistic traits, since broadly, both are measures of personality traits. Therefore, we examine if our finding concerning SR disposition is embodied in narcissistic traits. Our descriptive study found that SR disposition is positively correlated to vulnerability to temptation, suggesting that the DFM's link from the human disposition to vulnerability to temptation appears valid. However, we found no association between SR disposition and narcissism. Upon further examination at the subscale level of narcissism, we found maladaptive entitlement/exploitativeness scale is positively correlated with SR disposition and vulnerability to temptation, while the adaptive dimension, leadership/authority, is negatively correlated with SR disposition. The study provides preliminary evidence that SR disposition, due to its vulnerability to temptation, could lead to financial fraud. Implications of the findings and suggestions for further research are offered.

Keywords: Disposition; Narcissism, Financial Fraud, Fraud Risk-factor, Vulnerability to Temptation

Introduction

In a study of compromise of one's duty leading to wrongdoing, there are two views that dominate the discussion: dispositionalist and situationist. The dispositionalist view argues that one's virtues play a part in determining if an actor would engage in moral wrongdoing. The situationist view emphasizes that it is the circumstances that force people to indiscretions. While the situationists have dominated the field (Ross & Nisbett, 1991), dispositionalists pushback to regain the recognition of the role of virtue (Sabini & Silver, 2005; Alzola, 2008). Although circumstances play a part in whether fraud will materialize, it is the actor who launches the misdeed. After all, all crimes originate with humans; consequently, a tailored strategy based on a keen understanding of human nature and behavior is required (Allan, 2003). An elaborate examination of circumstances surrounding the act can lead to useful lessons to curb crime, but no real cure to prevent the possibilities. What can be learned about why people commit indiscretions (Soltes, 2016) can provide a good first step toward possible recourse to minimize future frauds. Regardless of one's belief, the fact is that an interactionist model that accommodates both virtue ethics and circumstances is essential to comprehend wrongdoing (Trevino, 1986). This paper investigates the role of disposition using an interactionist model, called the disposition-based fraud model (DFM). While generally applicable, the model is used to explain primarily the executive financial fraud.

Attitudes mirror one's disposition and therefore, one way to study disposition is through attitudinal aspects of human behavior. A person's attitude is shaped by the person's moral identity – the extent to which the elements most central to a person's identity are moral (Vitell et al., 2008) - which may be symbolic or internal (Aquino & Reed, 2002). Symbolic moral identity tends to emphasize compliance with the "letter of the law," while internal moral identity suggests a higher stage of moral development. The former tends to focus on the self, consistent with the pre-conventional level (e.g., self-interest orientation), and the latter on the collective, consistent with the post-conventional level (e.g., universal ethical principles) proposed by Kohlberg (1984). CEOs and CFOs with prior legal infractions - evidence of symbolic moral identity - were found to have been more

likely to perpetrate fraud (Davidson et al., 2013).

Attitudes, according to the fraud triangle, comprise one of the three preconditions for fraud to occur. However, the attitude/rationalization precondition has received hardly any attention in the accounting literature (Hogan et al., 2008; Murphy & Dacin, 2011). Research on financial fraud models spans several decades (Vassiljev & Alver, 2016); despite various modifications of the fraud triangle (Dorminy et al., 2012), there hardly is any insight on humans as a source of the wrongdoing. The fraud triangle lacks enough explanation of how virtues – the bedrock of attitudes - come into play in financial fraud. To bridge this gap, we test whether human disposition as a representation of virtue invokes the actualization of stimuli tempting the actor to indulge.

Virtues potentially lead to ethical behavior. A lack of ethical behavior projects itself into the increased propensity for managerial fraud (Johnson et al., 2013; Rijsenbilt & Commandeur, 2013). The association between managerial attitudes and the manager's propensity to defraud has been investigated in many studies (Blair et al., 2008). Overall, evidence suggests that managerial attitudes influence the likelihood that the executive might commit an act of indiscretion (see, for example, DuBrin, 2012). Since attitudes are sourced in virtue traits, the issue centers on the morality mirrored in the executive's virtues. We examine here whether a person's disposition – a virtue trait - affects the person's inclination to entertain tempting stimuli, a vulnerability that could lead to a moral compromise.

The primary purpose of this study is to test the feasibility of the human disposition construct as a fraud risk-factor. The DFM (Raval, 2018) connects disposition with temptation, classifies executive disposition as either self-regarding (SR) or other-regarding (OR), and postulates that executives of SR disposition are more vulnerable to break their moral resolve than those of OR disposition. SR executives thus are more likely to get tempted to indulge in financial fraud. In this study, we test the proposed association between SR disposition and vulnerability to temptation - a key element of the dispositional dimension of DFM. The findings of the study could potentially lead to a whole new understanding of financial fraud and thus generate a new line of investigations with a focus on the dispositional or interactionist view of the act. The importance of this study lies in ascertaining the psychological underpinnings of yielding to moral temptations and thus providing a unique and hopefully useful, perspective on the fraud scene. With this aim, we present and test the key hypothesis: SR

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disposition is vulnerable to temptations. Since this link is central to DFM, its examination is a crucial first step to determine if the model has the potential to contribute significant additional insights on the ever-present issue of executive financial fraud.

Business ethicists have postulated that virtue and character traits supervene on personality traits (Hartman, 1998; Solomon, 2005). Narcissism, a personal trait, has been studied in the context of leadership behavior (Duchon & Drake, 2008; Judge et al., 2009; Harms et al., 2011). The evidence generally shows that the narcissistic tendencies of a leader increase propensity toward the commitment of indiscretions (Amernic & Craig, 2010; Blickle et al., 2006). If disposition supervenes on personality traits, it would be reasonable to project that personality traits may have characteristics that work like dispositional traits. If there is an association between narcissism and SR disposition, implications of current knowledge about the effect of narcissism on fraud can also be examined and perhaps extended to SR disposition. Therefore, we present and test two more hypotheses: (a) Narcissism and SR disposition are related and (b) narcissism is related to vulnerability to temptation.

Narcissism is not a unified, single attribute; it has several relatively independent and somewhat diverse dimensions (Raskin & Terry, 1988; Grijalva & Harms, 2014). As a result, it is important to determine if each of these dimensions, called subscales of Narcissism, is related to disposition or vulnerability. Likely, a subscale is prominently associated with SR disposition, but others are not, thus possibly resulting in the dilution or masking of a relationship between overall narcissism construct and disposition or temptation. Additional evidence on the role of narcissism or its dimensions (as represented by subscales) in wrongdoing could not only clarify past research results but also help focus on specific aspects of narcissism that associate with vulnerability to moral temptation. This is important to the research domain of fraud as it relates to narcissistic traits. Therefore, we present and test two additional hypotheses: Each subscale of Narcissistic Personality Inventory (NPI) is differently related to (a) SR disposition and (b) vulnerability to temptation.

The first part of the paper discusses the relationship between moral identity and disposition as a virtue trait, which leads to the possibility that human disposition plays a role in the breakdown of moral resolve as identified in DFM. The second part highlights the specific DFM link relevant to the study: the association between disposition and moral temptation. Additionally, we also raise the question of potential overlap between SR disposition and subclinical narcissistic traits. Because there exists evidence on the association between narcissism and fraud (Amernic & Craig, 2010; Blickle et al., 2006), it is appealing to test if the two traits, narcissism, and SR disposition, are related. Any correspondence between the two will likely permit extension of findings from the evidence on narcissism and fraud to SR disposition and vulnerability to temptation, a predecessor of the actualization of fraud. In turn, this might provide further impetus to search for behavioral preventive markers in financial fraud. In the third part, we present a descriptive study, where we discuss the sample, measures, and results. In the final part, we revisit the hypotheses, cover implications and limitations of the study, and offer suggestions for further research.

Theoretical Foundations of Human Disposition

Blasi (1983, 1984) proposed that individuals define their sense of self-*will* to uphold moral concerns, and this shapes their moral identity. Through moral identity, individuals are motivated to honor their resolve to engage in moral action to achieve and maintain self-consistency, for it neutralizes the effects of moral disengagement by emotionally associating the self to consequences for others (Reed & Aquino 2003; Aquino et al., 2007).

Aquino and Reed (2002) suggest a binary classification of moral identity: internal (morality at a private level) and symbolic (moral behavior through compliance with external rules, such as the code of conduct). Internal moral identity can be linked to virtue ethics in the following manner. The content and structure of the inner self may differ considerably between persons, depending on their view of the self and the relationship between the self and others, called self-construal (Markus & Kitayama, 1991). Extending the concept of self-construal to ethical leadership, Van Gils et al. (2010) suggest the following relation: the focus on the individual (self) is consistent with the pre-conventional level (e.g., self-interest orientation) in Kohlberg's (1984) moral stage development, and the focus on the collective with the post-conventional level (e.g., universal ethical principles). The two foci presumably coincide with symbolic and internal moral identity, respectively.

Virtues help form moral identity and thus characterize the person; they tend to increase the person's propensity to exercise sound ethical judgments (Armstrong et al., 2003). Virtue traits influence how one is disposed to making choices at all levels – material, mental, moral, etc. In Aristotle's words (1934), dispositions are the things in virtue of which we are well- or ill-disposed in respect of emotions. It is the behavioral reliability for acting virtuously, and it evokes tendencies, habits, or proneness to have appropriate judgment and appropriate feeling toward action in each situation (e.g., whether to indulge in temptation and consequently break a moral resolve). Such tendencies become settled states – ways of being – for the moral agent (Marmodoro, 2011); “the difference of characters is innate and ineradicable” (Schopenhauer, 2010, p. 250), although “situations of crisis often force people to re-examine their basic values,” (Pence, 1991, p. 257). Conceivably dispositions are like hard-to-erase etchings on a coin; even when possible, the change in one's disposition may be slow to materialize and difficult to achieve. In an organizational setting, this stickiness of behavioral tendencies can afford auditors and directors insights on whether the person is vulnerable to moral temptations.

The temptation is the state of being enticed, allured, or seduced (Tang & Sutarso, 2013). Whereas disposition is a steady trait across all behaviors and could remain unchanged for a long period, the temptation is transient. Tempting stimuli may stay temporarily and then go away or may linger on for a while. The inducement provided by the stimuli essentially invites the person to indulge; the indulgence may have to do with simple nonmoral situations like having a cookie or may involve significant moral judgments, such as indulging in insider trading using sensitive information not yet publicly disclosed. The proneness of disposition is constant while all sorts of moral and nonmoral stimuli stream across time.

Researchers have examined the relationship between temptation and unethical behaviors (Tenbrunsel, 1998; Mead et al., 2009; Restubog et al., 2011; Smith et al., 2005). Temptation prompts cognitive processes to support self-control in a “cold” non-visceral state, and impulsive behavior in a “hot” visceral state (Nordgren and Chou, 2011). Studies by Tang and Sutarso (2013, p. 544) support the notion that “cold-hearted executives in recent scandals strategically planned, cleverly organized, deceitfully misled, and carefully executed their unethical behaviors.” Broadly, they conclude that temptation leads to unethical intentions.

Raval (2013) asserts that the potentiality of unethical behavior through indulgence in temptations is determined by the person's disposition and suggests that a person's moral stage development determines the moral orientation of the person; he classifies disposition – a fundamental element of virtue – as self-regarding (SR) - (rights- or entitlement-focused; low moral development) or other-regarding (OR) - (duty-focused; high moral development). SRs mentally figure out

how they (personally, or their inner circle) would benefit from their actions. ORs consider themselves as guardians of the rights of others who trust them with their interests; they, therefore, consider how others would benefit from their actions.

How SR disposition could lead to indiscretions can be illustrated in the context of related party transactions (RPTs). RPTs can become a convenient means for SR executives to serve their inner circle. Because their vulnerability to moral temptation is greater, they are the most likely candidates for structuring a selfish RPT. Frauds at Adelphia Communications, Enron, Tyco, and HealthSouth show how discordant influential business leaders can be serving their related entities by structuring RPTs to their advantage (Jennings 2006, p. 188-192). Studies on RPT and financial fraud report that instances of fraud may occur regardless of the presence of RPT (Bell & Carcello, 2000; Gordon et al., 2007) presumably because not all RPTs are staged to serve self-interest; for example, ORs can also deploy RPT to the benefit of the company and its shareholders. However, where RPT is present, the likelihood of fraud increases if the executive is SR.

Self-Regarding Disposition as A Fraud Risk-Factor

A holistic view of wrongdoing can only be fully specified by taking into consideration both the dispositionalist and situationist views, resulting in an interactionist model (Trevino 1986), such as the DFM proposed by Raval (2018). A brief discussion of the model, presented in Figure 1, follows.

Dispositional variables

Human disposition is a receptor that reacts to temptations. The DFM subsumes human disposition as a medium for the expression of one's virtues. Raval (2018) uses a binary classification of dispositional traits, self-regarding (SR) and other-regarding (OR). A key argument of DFM is that people of SR disposition are more vulnerable to moral temptations than those who are other-regarding (OR) and therefore, SR disposition operates as a fraud risk-factor. Figure 2 presents these relationships, suggesting that while SR disposition leads to a stronger association, the OR disposition is unrelated or weakly related to moral temptation. A theological argument here is that temptations are tests of one's character; those who are weak in their character will fall prey to the temptation. In an organizational context, the leader's moral identity as reflected in the leader's disposition could set the probability for a compromise to occur in the resolve to protect the fiduciary interests of those (e.g., shareholders) who trust them. Anchored on human attributes susceptible to fraud, this fraud risk-factor can serve as a practical guide for the auditors and directors and generally, for all involved in governance processes.

Using DFM as the anchor, we posit that SR disposition has to do with greater risk of falling prey to moral temptations. However, this is subject to the moderating effects of self-control over how temptations are addressed. Self-control seems separate from disposition in that the latter has virtue traits that drive ethical or unethical behavior. In a study of the relation between internal moral identity, self-control, and ethical decision making, Rua et al. (2017) separately introduced the internal moral identity and symbolic moral identity and found that each is significantly related to self-control. When both factors were introduced in the model concurrently, individuals with more internal moral identities showed higher levels of self-control strength than individuals with more symbolic moral identities. According to the DFM, the effectiveness of self-control is moderated by (1) psychological inertia that makes the person increasingly more vulnerable as he gets closer to the tempting stimuli, and (2) ego depletion (a demanding effort of self-control leaving one with less to

Figure 1: The disposition-based fraud model

effectively cope with the next challenge) which temporarily negatively impacts self-control and therefore, the person would likely be tempted to indulge in an unethical act (Gino et al., 2011). Joosten et al. (2014) conducted a laboratory experiment and a field study that revealed that, among leaders who have a low moral identity (presumably SRs in our study), depletion of self-control promotes unethical behaviors.

Hypothesis 1. Self-regarding disposition is positively associated with vulnerability to temptation.

Situational variables

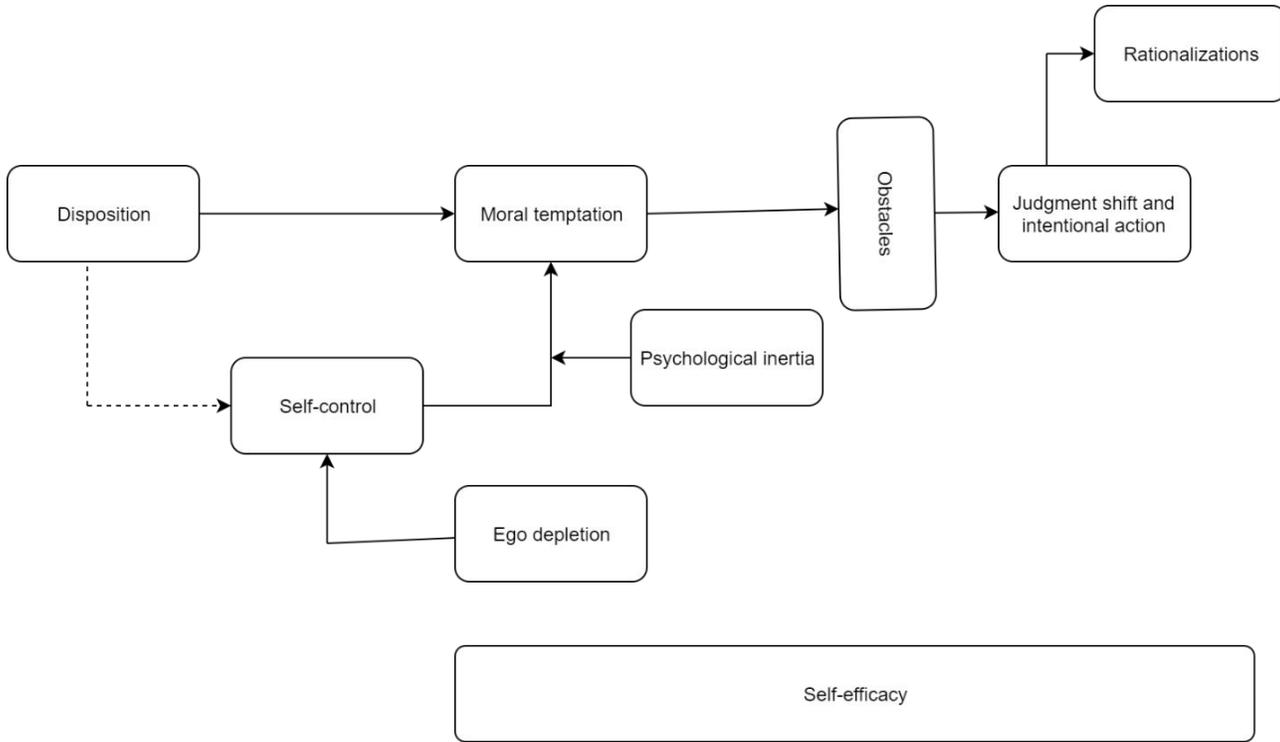
Having covered dispositional variables, we now focus on situational variables. The DFM suggests that indulgence to any temptation is subject to the prospective actor's comfort that relevant obstacles (including internal controls) either are or will be rendered ineffective so that the incident can be concealed. In an active process to mute or neutralize the effect of perceived relevant controls, the actor engages in self-efficacy, that is, triggers forces to neutralize the anticipated effects of relevant obstacles. The CEO's collusion with his CFO is an example of a self-efficacy measure. However, the self-efficacy measures come into play once the act is in progress or is committed, and this occurs with a judgment shift at the time of entertaining the tempting stimuli. A judgment shift materializes when the person, in evaluating whether to indulge, weighs more favorably the immediate gains of doing so than the long-term rewards of resisting the temptation. Finally, to avoid cognitive dissonance, the fraudster typically rationalizes his actions as justifiable. As noted earlier, this study focuses only on the dispositionalist aspect of the model.

Narcissism and disposition

The 5th edition of the Diagnostic and Statistical Manual describes narcissism as a grandiose preoccupation with one's self-importance. The diagnostic criteria for narcissistic personality disorder include fantasies of unlimited success, hypersensitivity to criticism, entitlement, exploitativeness, and a lack of empathy (American Psychiatric Association, 2013, p. 645). The SR disposition *prima facie* is related in some way to narcissism, for both emphasize "self." Outside of this broad postulate, in the absence of prior studies, it is difficult to anticipate a specific outcome. Because one could enhance self-importance through self-regarding behavior, narcissism may be related to self-regarding traits. If the two are related, erstwhile research findings of narcissism may be applicable, *mutatis mutandis*, to SR disposition. And if the relationship between SR disposition and vulnerability holds, the study would provide an indirect but confirmatory signal to the relationship between narcissism and potentiality to compromise. However, narcissism is a complex phenomenon; its notion of looking at the self may not be comparable to the idea of a self-regarding virtue trait. As a first such exercise, we examine a possibility that SR disposition and narcissism are somewhat comparable constructs.

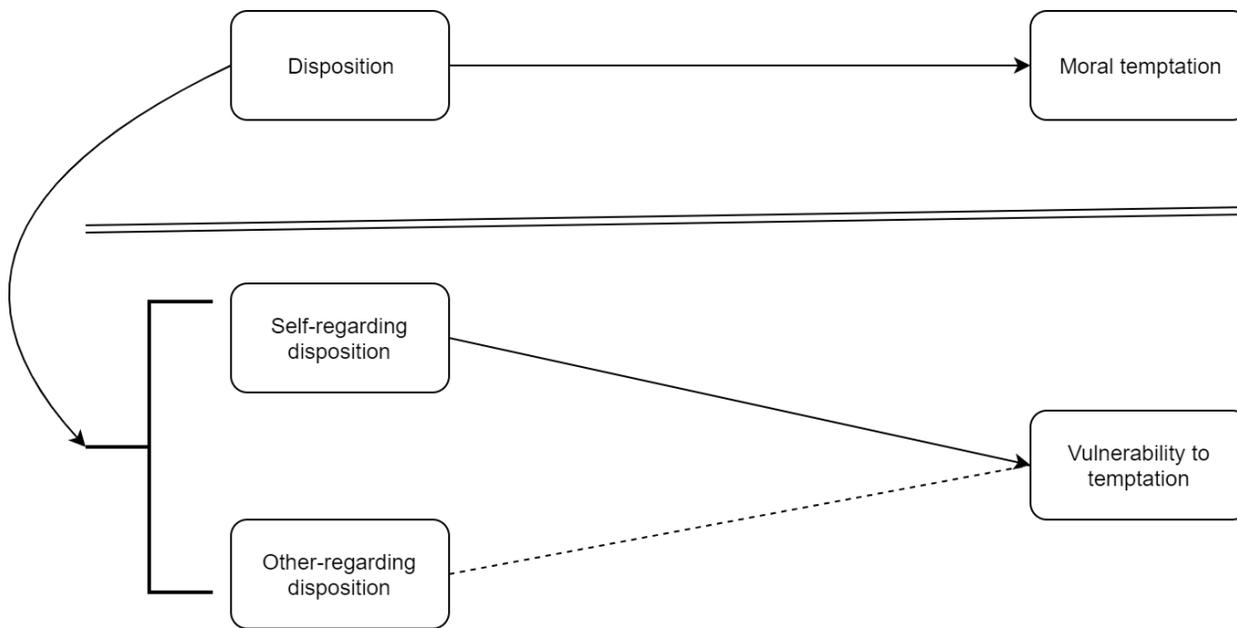
Hypothesis 2. Self-regarding disposition and narcissistic personality traits are positively related.

Grijalva and Harms (2014, p. 110) assert the importance of personality traits such as narcissism that are associated with unethical and selfish behaviors. Widely examined in the organizational behavior literature (see Young et al., 2016), narcissism is "the one construct that the researchers have continually linked to a leader's proclivity to behave . . . unethically (Blair et al., 2008, p. 255)." Presumably, high levels of executive narcissism may induce greater vulnerability for wrongdoing.



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Figure 2: Relationship between two classes of disposition and vulnerability to temptation



Hypothesis 3. Narcissism and vulnerability to temptation are positively related.

Subscale-level examination of narcissism

Although narcissism is linked to a higher propensity to commit the white-collar crime (Blickle et al., 2006), including financial fraud (Rijsenbilt and Commandeur, 2013), this conclusion is not unequivocal. For example, Brown and his colleagues (2010) found a negative relationship between narcissism and moral decision-making. A major confounding issue in such divergence of findings may be the multidimensionality of narcissism. Narcissism “drives both constructive and destructive behaviors” (DuBrin 2012, p. 20). As Briggs and Cheek (1986) suggest, using an overall total score on a multi-factor construct, such as NPI-40, would imply ignoring differences that are conceptually meaningful and empirically useful. Ackerman et al. (2011, p. 86) emphasize that multidimensionality is often “overlooked by subsequent researchers (including ourselves) who have focused on NPI total scores;” adding that “the countervailing relations between the NPI subscales and criterion variables can generate a null effect for the total score, which could mislead researchers into believing that narcissism has no relation with the criterion-related variables.” Consequently, it seems that using NPI subscales that are close to previously found markers such as executive lifestyle or sense of entitlement will provide a more meaningful test of narcissism’s potential association with fraud risk-factors. Johnson and colleagues (2013) included in their analysis of NPI items that best matched up with the narcissism constructs of *grandiosity* and *entitlement/exploitativeness* and found that narcissistic client behavior and fraud motivation are significantly and positively related to auditors’ overall fraud risk assessment.

These assessments lead us to believe that the NPI-40 subscales may be differently related to disposition and vulnerability to temptation. To quote Raskin and Terry (1988, p. 899), “both theoretically and clinically, narcissism represents a syndrome of relatively diverse behaviors that would not predict for a particularly strong or overriding general factor.” As an overarching personality trait measure, the narcissism scale emphasizes self-importance. However, in each situation, a distinct behavioral symptom (e.g., self-admiration) or diagnostic criterion (e.g., a lack of empathy) may play a more significant role than the overall personality. In their analysis of NPI subscales, Young and colleagues (2016) note that the NPI subscales authority, self-sufficiency, and superiority can be viewed as having more beneficial effects of narcissists’ workplace behavior while the remaining subscales (exhibitionism, exploitativeness, vanity, and entitlement) are more self-serving and destructive and can lead to adverse consequences for individuals, groups, and organizations. Pincus and Lukowitsky (2010) assert that (1) normal (or adaptive) narcissism reflects the strategies used to promote a positive self-image and facilitate agency by otherwise psychologically well-adjusted individuals, and (2) pathological (or maladaptive) narcissism is characterized by maladaptive self-regulation processes that could cause significant distress and impairment. Ackerman et al. (2011) propose a higher-order structure for the NPI in a binary form, adaptive (or normal) narcissism and maladaptive narcissism, conduct a series of four studies, and identify and validate three factors of NPI: *Leadership/authority* (adaptive), and *grandiose exhibitionism* (maladaptive) and *entitlement/exploitativeness* (maladaptive). We use this factor structure of NPI to examine the subscale-level relationship between narcissism and (1) SR disposition and (2) vulnerability to temptation. We expect that a subscale-level differentiation, especially the maladaptive factors, could be revealing in studying the effect of narcissism in wrongdoing.

Hypothesis 4A. Narcissistic Personality Inventory subscales are differently related to disposition.

Hypothesis 4B. Narcissistic Personality Inventory subscales are differently related to vulnerability to temptation.

Method

Sample and Data Collection Procedures

A survey was administered to 169 students at a Midwestern university in the USA. The respondents were comprised of 27 graduate business students, 76 second-year Law students, and 66 senior-year business students. The age range of the sample was relatively narrow; most participants were born between 1991 and 1999. A large majority of participants had some work-related experience. Participants were assured that no personally identifiable information is collected, and their responses will remain confidential. Whereas the survey collected additional data, the analysis presented here is limited to the hypotheses tested in this study.

As participants, business and law students serve as a proxy for executives. Business undergraduate students are required to take many of their courses from the college of business. Non-business degree holders in the MBA program are required to take several business courses as prerequisites/corequisites; many MBA degree students have several years of work experience. Some law students may have earned their undergraduate degree majoring in humanities and sciences and therefore, may not have a business background; however, required courses in the second-year law school (e.g., Business Associations, Professional Responsibility, Commercial Law) directly or indirectly inculcate depth in the world of business and management. Selected characteristics of the sample are shown in Table 1.

Table 1: Characteristics of the sample (N = 169)

Gender:
Men (97); Women (70); No response (2)
College:
A law school (76); Business graduate (MBA) (27); Business senior undergraduate (66)
Area of study:
Business (90); Law (73); Humanities (2); Other (4)
Working currently or have worked in the past:
Part-time (89); Full-time (59); Part- or Full-time (13); Not working/non-response (8)

Measures

The survey contained 44, 13, and 40 questions to measure SR disposition, vulnerability to temptation, and NPI, respectively. Each is discussed in this section.

Self-Regarding disposition (SR). Our construct of SR is rooted in the eastern metaphysics, relying on millennia of reflection into the disposition of humans and its role in human choice. Psychologists and metaphysicists have resorted to deeper analyses of ancient Hindu scriptures (*Puranas, Upanishads, Vedas, The Bhagvad Gita, Mahabharat*, etc.) to study the impact of *gunas* (quality of being) on the human personality (Krishnamurthy et al., 1971; Marutham et al., 1998; Mathew, 1995; Mohan and Sandhu, 1986; Pathak et al., 1992; Wolf, 1999), and *gunas* as predictors of workplace ethics (Bhal and Debnath, 2004, 2006).

Gunas determine one’s disposition. To measure disposition, we use a modified version of the MTS scale developed by Shilpa and Murthy (2012), who studied the literature in eastern metaphysics, interviewed experts in the field, and identified and analyzed quality attributes that

make up the three *gunas*: Tamsik[T] (indolent, subject to inertia), Rajsik[R] (active, passionate), and Sattvik[S] (enlightened), and how they would be expressed in one's preferences. The MTS is comprised of 63 three-pronged forced-choice items with one prong devoted to each of the three *gunas*. The reliability coefficient (Cronbach's α) for the instrument was .965, and the Guttman split-half coefficient, .98. In a retest on a sample of 60 participants following a gap of 20 days from the initial administration of the MTS, Pearson correlations for before and after responses were .73, .87, and .83, for T, R, and S respectively, all significant at .01. In a concurrent validity test of MTS, the *gunas* inventory developed by Sharma (1999) was selected and administered to 60 respondents who also answered the MTS questionnaire. The correlations between the *gunas* scores on the two scales were .43, .84, and .78 for T, R, and S, respectively (Shilpa and Murthy, 2012, p. 6-7). These results suggest that MTS measures the *gunas* consistently and reliably.

This study uses two of the three prongs of the MTS corresponding to R and S items; R items measure SR and S items, OR. Aurobindo (1996, 469-476), the renowned thought leader on Eastern Metaphysics, suggests that people fall very largely into two classes: those who have a dominant force of self-regarding nature (R items) and other-regarding nature (S items). In the forced-choice two-pronged statements, if the respondent selected an R prong, the item was assigned a score of one, otherwise, it was assigned zero. The aggregate score on the scale thus measured SR disposition on the R_S continuum. The higher the score, the more dominant the SR. The items on the scale were reviewed for (1) within-item consistency in description, (2) ambiguity in description, (3) religious connotation, (4) culture-specific context (e.g., perspectives on eating meat), and (5) culturally-influenced personal preferences (e.g., respect for adults). Because the sample consisted of students, items suggesting sexual preferences were removed. Altogether 20 items were omitted from the modified scale. The remaining 43 items on the scale were reviewed for clarity in the wording appropriate for the Western sample of respondents. This resulted in a minor revision of item descriptions in 13 of the 43 items. Despite these changes, we believe the essence of each item was maintained, and the modified scale remained reliable.

A hallmark distinction between SR and OR presumes that SRs are attached to results while ORs believe that whereas they should strive for success, they do not control outcomes, putting their best efforts is all they can do. We developed and included an item that potentially captures this phenomenon, bringing the total to 44 items. Selected items from the modified MTS are reproduced in Table 2, with the scoring key in parentheses at the end of each item.

Vulnerability to Temptation (VULTEMPT). One's self-control resource mediates the relationship between disposition and temptation. Vitell et al. (2008, p. 604) define self-control as "one's ability to adapt to provide a better fit between oneself and one's environment." If one's self represents one's moral identity, self-control provides the leverage to resist morally questionable behavioral tendencies. Geier and Baumeister (2005, p. 414) believe that "self-control is crucial for virtuous behavior." Thus, the vulnerability to temptation is presumably accentuated by low self-control and mitigated by high self-control. We do not explicitly introduce a construct of self-control however, we rely on the variable, vulnerability to temptation, to implicitly assess the effect of self-control.

Six items (1, 2, 9, 10, 11, and 12) that *prima facie* affect vulnerability were selected from the self-control scale (Tangney et al., 2004). These items were supplemented with additional questions (see **Table 2**: Selected items from the modified MTS scale

rationale in Table 3) designed to measure other aspects of vulnerability to temptation, motivated by Holton (2009), Tilak (2004), and Kahneman (2011). The variable carried a five-point scale with the scale values as: not at all (scored as 0), hardly, somewhat, much, and very much (scored as 4), with a maximum possible score of 52. Table 3 shows the items on the scale and their origin.

Narcissism (NARC). The possibility that a person of SR disposition may, at least in some respects, be aligned to narcissistic personality prompted us to correlate SR and NARC scores. For this purpose, NARC was measured using the Narcissistic Personality Inventory (NPI-40) developed by Raskin and Hall (1979).

Results

Disposition and vulnerability to temptation. Descriptive statistics and pairwise correlations of the three key variables: SR, VULTEMPT, and NARC, along with Age are shown in Table 4. Cronbach's alpha for SR and NARC appear to suggest an acceptable level of internal consistency; for VULTEMPT, the alpha value is low, but acceptable (Hair et al., 2006). Raw mean and standard deviation for NARC are comparable to the results of past studies. Traiser and Eighmy (2011) conducted a study on the narcissism of 264 business students; they report an average score and standard deviation on the NPI-40 as 15.74 and 7.09, respectively.

The results of the survey support Hypothesis 1 that SR disposition is vulnerable to temptation. The correlation between the measures for disposition and vulnerability is statistically significant (0.53, $p < .01$). The finding might suggest that a person's disposition potentially plays a part in whether the person would yield to moral temptation. The results also show that age is inversely correlated with vulnerability to temptation. Participants in the age range of 20 to 30 years comprised 95% of the sample; the result, therefore, may be skewed and less generalizable.

Narcissism and disposition, vulnerability. Broadly, both narcissism and SR disposition emphasize a tendency to pay attention to self. Therefore, the two constructs may come across as overlapping if not identical. Based on this premise, we examined the association between our measures of SR and narcissism but found no significant correlation (see Table 4) between the two ($r = -.024$). Hypothesis 2 is not supported. As discussed earlier, NPI represents a syndrome of relatively diverse behaviors that may not predict association with specific classes of traits and possibly neutralizing the result across the overall measure of narcissism.

We also investigated whether the narcissistic personality trait is associated with vulnerability to temptation. The results show that narcissism does not significantly correlate with vulnerability to temptation ($r = 0.06$), suggesting that individuals high on narcissistic traits are not necessarily vulnerable to temptations, but, as discussed earlier, a major confounding effect in measuring this association probably comes from the multidimensionality of NPI. Hypothesis 3 is not supported.

Narcissism subscales and disposition, vulnerability. We also examined the association between SR and VULTEMPT, each with each of the three narcissism subscales identified by Ackerman et al. (2011).¹ Table 5 presents subscale-level correlations.

Figure 3 presents the associations tested and significant correlations found in this study. The results concerning Results of Hypotheses 4a and 4b are interpreted as follows:

Hypothesis 4a: *Leadership/authority*, an adaptive factor, is negatively associated while *entitlement/exploitativeness*, a

Worldly desires: I am satisfied and happy with what I have. (OR) I am generally satisfied with what I have, but sometimes I may want what others have. (SR)
Attachment to outcomes: What matters to me is that I do my best regardless of the outcomes. (OR) If I put in the effort, I expect results from it. (SR)
Intense desire to get material things: I am happy with what I have and don't desire what I don't have. (OR) I am very ambitious and work hard to achieve what I want. (SR)
Choice of means to ends: I am usually transparent in my dealings, but at times "cut corners" for personal gains. (SR) I am always transparent in all my dealings and dislike cheating. (OR)
Ignorance/awareness of existential knowledge: Money is important but there are more important things than money. (OR) I do all I can to earn as much money as possible since it is important. (SR)

Table 3: Statements capturing vulnerability to temptation (VULTEMPT)

	Statements:	Primary source:
*1.	I am good at resisting temptation.	(Tangney et al. 2004). Being more effective in resisting temptation suggests lower vulnerability to temptation.
2.	I have a hard time breaking bad habits.	(Tangney et al. 2004). The difficulty in breaking bad habits suggests greater vulnerability to temptation.
3.	People would say that almost anything is possible for me if I "set my mind" to it.	The motivation for a desire to possess something leads to fixation on the anticipated outcome, thus increasing psychological inertia and vulnerability to temptation.
4.	I am more of a "got to have it" person.	The increasing level of attachment to outcomes increases vulnerability to temptation.
*5.	Vigilance is my virtue.	Those who are vigilant are less likely to fall prey to temptations.
6.	I am very protective of my pride.	Self-regarding persons are more likely to carry a false sense of pride. Protecting one's pride may blind-side the person into wrongdoing.
7.	When it comes to compensation and bonuses, I have a strong preference for immediate rewards rather than long term rewards.	(Holton 2009). Likelihood of judgment shift and therefore, a moral compromise, if immediate rewards are valued more.
*8.	I don't control outcomes, only sincere efforts to achieve them.	Not having the pressure of owning the outcome would likely result in resistance to temptation. (Tilak 2004).
*9.	I refuse things that are bad for me.	(Tangney et al. 2004). Being able to avoid things that are bad suggests lower vulnerability to temptation.
*10.	I am able to work effectively toward long-term goals.	(Tangney et al. 2004). Focus on long-term goals lowers the probability of "judgment shift" in favor of immediate gains.
11.	Sometimes I can't stop myself from doing something, even if I know it is wrong.	(Tangney et al. 2004). Intense attachment to temptation causes addiction-like behavior.
12.	I often act without thinking through all the alternatives.	(Tangney et al. 2004). When the analytical mind quits, the intuitive mind takes over the decision making, increasing vulnerability to temptation (Kahneman 2011).
13.	I tend to rely on intuition rather than analysis in making decisions.	Intuition could lead to the vulnerability of wrongdoing because it is more impulsive (Kahneman 2011).

*Requires reverse scoring

Table 4: Descriptive statistics and pairwise correlations

Variable	Cronbach's alpha	Mean	SD	1	2	3	4
				Pairwise correlations			
1	Disposition (SR)	0.71	18.28	5.26	1.000		
2	Vulnerability to temptation (VULTEMPT)	0.66	23.06	5.48	0.530**	1.000	
3	Narcissistic personality (NARC)	0.86	17.19	7.10	-0.024	0.060	1.000
4	Age (AGE)		25.07	4.38	-0.107	-0.202*	-0.032
							1.000

*p<.05; **p<.01

Table 5: Correlations between narcissism subscales, SR, and VULTEMPT

Variable (Narcissism subscales)	1 Leadership/Authority	2 Grandiose exhibitionism	3 Entitlement/Exploitativeness	SR	VULTEMPT
				Pairwise correlations	
1	Leadership/Authority	1.00	.42**	.38**	-.16*
2	Grandiose exhibitionism		1.00	.36**	.09
3	Entitlement/Exploitativeness			1.00	.31**
					.20*

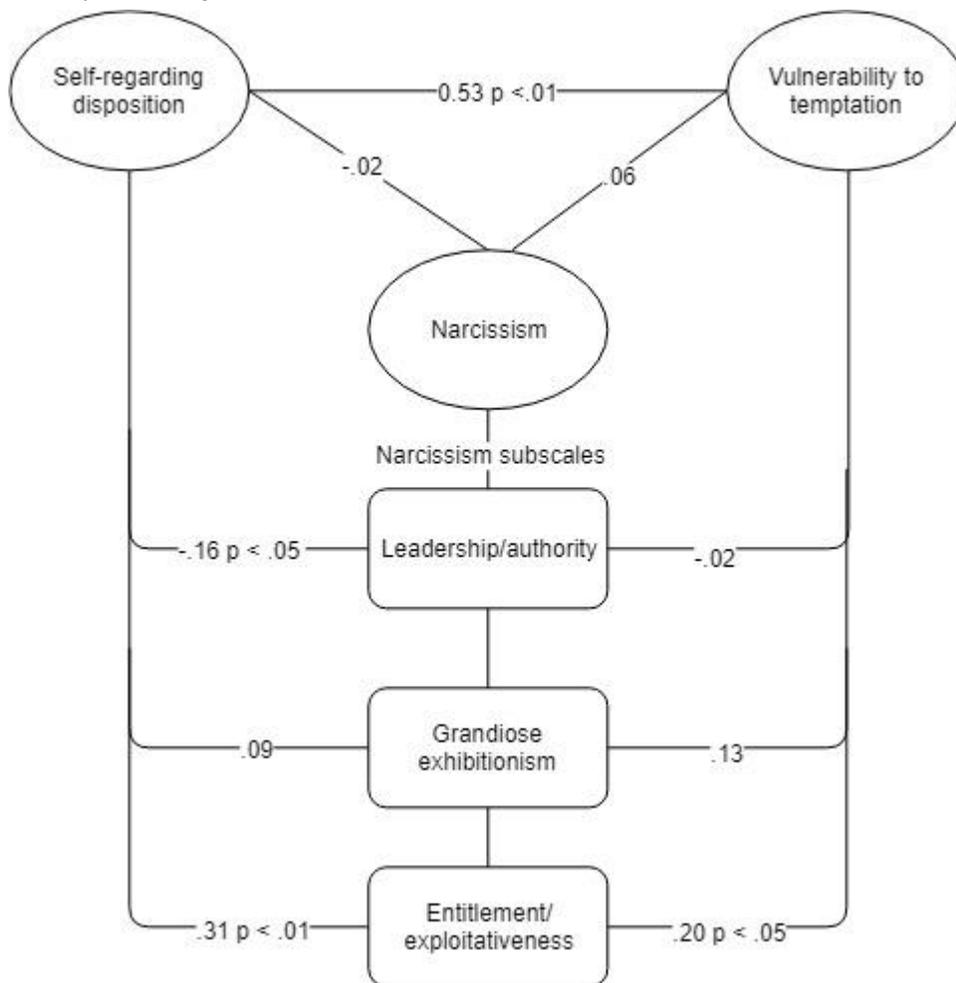
*p<.05; **p<.01

We also used the seven factors identified by Raskin and Terry (1988). The results show that four subscales correlate with SR: Authority (-.17, $p < .05$), Exhibitionism (.24, $p < .01$), Self-sufficiency (-.27, $p < .01$), and Entitlement (.18, $p < .05$). We believe these results are consistent with the findings based on Ackerman and colleagues' (2011) three-factor analysis. Leaders possessing SR disposition may not be adaptive leaders, limiting their positive influence on the people they lead and the results they produce. As Raval (2013) asserts, ostentatious behaviors (exhibitionism) are a sign of SR. Self-sufficiency projects "Yes, I can" attitude, and may trigger a desire for isolation (I don't need anyone) or lack of responsibility for others (People can't live their lives in any way they want). The negative correlation between self-sufficiency and SR seems to indicate that sufficiency may trigger low regard for others' rights. Except for one item, the items loading on the self-sufficiency factor in Raskin and Terry (1988) results did not appear on any of the three factors found by Ackerman et al. (2011). Finally, entitlement puts one's rights over others' rights and could thus be positively associated with SR.

We also used the seven factors identified by Raskin and Terry (1988) and found the following two subscales significantly associated with vulnerability to temptation: Exhibitionism (0.24; $p < .01$), and Entitlement (0.18, $p < .05$). These results are consistent with the findings based on Ackerman and colleagues' (2011) three-factor analysis; a key difference is that while positive, the association between exhibitionism and vulnerability to temptation was not statistically significant. The ostentatious behavior of actors of financial fraud has been repeatedly recognized by many researchers (see, for example, Jennings, 2006). The rights-versus-duty perspective separates SRs (entitlement or rights-focused) from ORs (duty-focused). The attitude of entitlement can lead one to disregard their accountability toward others and resort to wrongdoing.

The executive may write a check to the company for the takeout meal. Whereas this seems unlikely, auditors and directors could easily verify if a check for the takeout meal charges was received subsequently by the company.

Figure 3: A diagram of relationships tested and results



maladaptive factor, is positively associated with self-regarding disposition. Entitlement is a passionate pursuit of SRs; like entitlement, SR is positively associated with VULTEMPT. *Grandiose exhibitionism*, though positively correlated with both SR and VULTEMPT, did not reach significance. As Raval (2013) asserts, ostentatious behaviors (exhibitionism) are a sign of SR; however, it is likely that showy leader behaviors are only an indirect sign of fraud risk, but not the cause of it. Hypothesis 4a is supported in that the subscale level tests of association of narcissism with SR and VULTEMPT are more explanatory than the scale-level test. The narcissistic personality reflects a variety of facets and not all may be equally involved in moral compromises. This study offers an important guide for future studies of financial fraud and narcissism in that the use of narcissism subscales, particularly *entitlement*, could yield greater insights than the complete NPI-40.

The negative association between the adaptive factor, *leadership/authority*, and SR disposition was not expected. The factor refers to mostly favorable characteristics of a leader, such as having talent, confidence, assertiveness, authority over other people, strong will, preference for leading others, being extraordinary, and a born leader. It is likely that narcissistic traits, such as *entitlement*, that prompt destructive behaviors are positively associated with SR. And

the constructive traits, such as *leadership*, work in the opposite direction, therefore exhibiting a negative correlation.

Hypothesis 4b: The maladaptive subscale *entitlement/exploitativeness* is positively associated with vulnerability to temptation.² Rights versus duty perspective separates SRs (entitlement- or rights-focused) from ORs (duty-focused). The attitude of entitlement is likely related to self-regarding disposition and can lead one to disregard their accountability toward others. An important contribution of this paper is in revealing the possibility that the association between narcissism and vulnerability to moral temptation is more lucid as also conceptually clear at the subscale level than for the complete NPI-40, for the other dimensions of narcissism may have little to do with moral compromises. The maladaptiveness implicit in *entitlement/exploitativeness* may operate much like the SR disposition while adaptive narcissism presumably does not contribute to risks of indiscretion. Hypothesis 4b is supported in that the subscale level tests of the association are more meaningful than the scale-level test.

Implications, Limitations, and Conclusion

In an initial exploratory examination, the relation between human disposition and the person's inclination to indulge in fraud is supported in this study. A mini-step in search of the human side of financial fraud, this is an important contribution to current knowledge in the field and

would likely lead to further examination of the agent-side of the fraud equation. Incidentally, this study highlights the DFM's potential and hopefully encourages researchers to test the model more comprehensively. Since the initial publication of the model, further articulation of key parameters of the model has been offered (Raval, 2020) and the model's application in a real world fraud case has been demonstrated (Raval and Raval, 2020).

The potential for the marker, SR disposition, to help prevent fraud is significant. Disposition, by nature, is stable and cannot be masked by the executive; it reveals itself in various forms in all behaviors - both in formal work roles and social settings. One cannot act against one's disposition; because proneness to do anything stems from disposition, it is impossible to hide these tendencies across all actions. Consider an executive having a business dinner with others. Toward the end, he orders a takeout meal for his spouse and asks that the charges be added to the total bill, paid through the company's credit card.³ Watching this a couple of times should be enough to draw attention to the executive's SR disposition. While the amount may be immaterial, the lack of integrity markedly observable through the act is a fraud risk. Personal contact with the executive is thus critical for those in charge of governance, including for auditors as coregulators. In a survey-based study of chief financial officers' attitudes toward fraudulent financial reporting, Gillett and Uddin (2005) concluded that auditors' assessments of executive attitudes based on personal contact could serve as fraud indicators. While the distillation of actual behavior into implicit dispositional markers may require some experience, it is unlikely to pose a challenge to the trained eyes of most auditors and directors. Whereas brainstorming has been recognized as a necessary exercise in auditing, operationalizing character traits into predictive markers for potential wrongdoing is in its infancy and perhaps even missing in the current audit practice. Further development of this aspect is likely to bear fruits in terms of preventing corporate meltdowns.

Studies have shown that a variety of means could serve as fraud risk factors. However, the practical advantage of SR disposition as a fraud risk-factor is that it does not necessarily require any responses from the executive, just an observation of the executive's behavior would suffice. It may be that you are observing the executive in a meeting one-on-one, or with employees or shareholders, or in the board room; or you are looking at the overall dominant drive in the executive's philanthropy, where self-regarding disposition prompts philanthropy with "what's in it for me" syndrome. At the company, you may be looking at the structure of RPTs for personal benefit or the chief executive's bent toward personal use of a company-supplied private jet without paying for it. In the latter case, how often and when does the executive travel to a destination where she has her second home? Albeit still rather qualitative, this type of exercise is not only more feasible but also effective and may help avoid unobserved beliefs. As more signals converge on an assessment of executive disposition, the result can be relied upon with greater confidence.

This study introduces a new measure of executive disposition, SR, which may prompt researchers to experiment with unique ways to assess executive attitude toward financial fraud. In an actual audit, because direct responses from executives are unlikely, surrogate measures of any behavioral profile, including the executive's philanthropy, should generate a good understanding of the executive's disposition. A research agenda with an aim toward developing feasible and effective markers should prove extremely valuable to auditors and directors.

Interestingly, businesses need adaptive leaders to ensure their success; however, these leaders are most likely susceptible to temptation and therefore financial fraud. Thus, the potential for business success invariably accompanies the fraud risk. This sounds

off the alarm that financial fraud can never be eliminated. A reasonable answer to the fraud problem rests not so much in leaving out the SRs or narcissists from the leadership contention, for that may not be possible nor desirable in most cases, but rather helping the SR and narcissist leaders protect themselves from the fraud-risk emerging from their disposition. Perhaps the board of directors should engage in brainstorming exercises, much like their coregulator auditors, to assess the fraud-risk and respond to it proactively.

Our preliminary finding suggests that the construct *disposition* is uncorrelated with overall sub-clinical narcissism. Possible reasons for this result include the fact that while disposition is a unified personality trait, narcissism is multidimensional. The two constructs originate in very different domains. Narcissism is rooted in psychology; disposition has a relatively more direct link to not just behavior generally, but rather how one addresses moral choices.

The amount of research done on narcissism is extensive. However, unlike the DFM where the disposition is linked to moral temptation, hypotheses regarding *how* narcissism leads to actual occurrences of moral compromise deserve additional research efforts. Narcissism mirrors in *tone-from-the-top* believed to be the means through which narcissist leaders may express their behavior and influence others. However, the question of how individual narcissistic traits lead to a person's breakdown in moral resolve could benefit from further research.

This study has certain limitations. The participants in the study serve as a proxy to the executives. Business students - likely future managers - have been the focus of many studies. In an empirical study to determine whether students and practicing managers exhibit the same degree of sensitivity to ethical dimensions of business decisions, the researchers concluded that both groups demonstrated the same level of sensitivity to ethical dimensions of decision-making. However, moral reasoning may not translate into moral behavior (Wimalasiri et al., 1996); participants may think in one way, but behave differently. Additionally, social desirability response bias may have influenced self-reported responses to the questionnaires. To establish further confidence with our findings, more studies with a variety of populations, especially influential managers, are necessary.

This study accounts for self-control only as it affects vulnerability to temptation rather than as a separate variable. The interactionist fraud model DFM suggests that self-control moderates how disposition would treat an impending temptation. The roles of self-control and related variables, such as ego depletion and psychological inertia, need to be explicitly tested as variables moderating the relationship between disposition and temptation. As an example, using a within-subject quasi-experiment, Hurley (2017) compared self-control resources (subject to depletion) of auditors at the onset of days within and outside of busy season and found that auditors begin their workdays within their busy season with a depleted state that can decrease judgment and decision-making quality.

Finally, we measure vulnerability to temptation, not vulnerability to *moral* temptation. Morality is not intrinsic to stimuli; the temptation itself may not necessarily have explicit triggers to put forth moral choices. This raises the question of whether the results of the study are equally applicable to moral compromises. Cunningham et al. (2008) assert that component processes are likely common to both moral and nonmoral evaluation. (Van Bavel et al., 2012) conducted three experiments on the association between the moral and nonmoral (pragmatic or hedonic) evaluation of the same action and concluded that people are capable of shifting from moral to nonmoral evaluations. Although the evidence suggests that moral and nonmoral temptations may have a common path, an explicit test of moral temptations could prove more convincing of the relationship.

An important contribution of this paper is that it puts forth a call to clarify the role of narcissism in a moral compromise. In this regard, we should reiterate two key conclusions from the study. (1) Thus far, research seems to be heavily weighted toward showing that narcissism is a potential contributor to wrongdoing. Further research is necessary to determine why, and under what conditions, high levels of narcissism trigger a compromise. (2) Toward this end, evidence from this study suggests that research on financial fraud may unearth deeper and clearer insights if the focus is on specific subscales rather than the entire NPI-40. We believe a subscale level examination of the relationship between disposition as a representation of virtue and narcissism as a measure of personality traits should prove helpful in the understanding of drivers of fraud. Overall, the research domain of the human side of fraud presents many challenges. And, in the interest of public trust and public service, the payoff is equally promising.

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IRB approval

Institutional Review Board approved the administration of instruments used in this study.

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The authors declared no potential conflicts of interest concerning the research, authorship, and/or publication of this article.

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