

Dark Triad Traits and Accounting: An Operating, Reporting, and Assurance Framework

Jessica Buchanan
Providence College

Emily Griffith
University of Wisconsin–Madison

Tamara A. Lambert
Lehigh University

Stephen Perreault
Providence College

SUMMARY: The personality traits of narcissism, Machiavellianism, and psychopathy, collectively referred to as the “Dark Triad” (DT), have received meaningful attention in the accounting literature. This paper aims to help researchers digest the existing DT research in accounting and inform productive DT research going forward. Specifically, we present an operating, reporting, and assurance framework for analyzing how DT traits affect decisions in all stages of financial reporting, including auditing the financial statements. Our framework is of use to researchers interested in the effects of DT traits and other personality traits in a variety of accounting contexts.

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I. INTRODUCTION

Machiavellianism, narcissism, and psychopathy make up the cluster of socially malevolent personality traits called the “Dark Triad” (DT), which is characterized by behaviors such as disagreeableness, callousness, and antagonism (Paulhus and Williams 2002; Jakobwitz and Egan 2006; Furnham, Richards, and Paulhus 2013). As the name suggests, the DT is generally viewed negatively (Paulhus and Williams 2002). The popular press describes the DT as a “nefarious advantage” that enables bad actors to attain power, and has blamed the DT for the development of self-interested “corporate psychopaths” responsible for the global financial crisis of 2004–2008 (Mind Tools Content Team (MTCT) 2023). Indeed, DT traits seem to be over-represented in the corporate world (Babiak, Neumann, and Hare 2010; Epstein and Ramamoorti 2016). Thus, the potential exists for DT traits to impact individuals’ business decisions, including those that influence financial statements, in harmful ways.

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Jessica Buchanan, Providence College, School of Business, Department of Accountancy, Providence, RI, USA; Emily Griffith, University of Wisconsin–Madison, Wisconsin School of Business, Department of Accounting and Information Systems, Madison, WI, USA; Tamara A. Lambert, Lehigh University, College of Business, Department of Accounting, Bethlehem, PA, USA; Stephen Perreault, Providence College, School of Business, Department of Accountancy, Providence, RI, USA.

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Accounting researchers acknowledge the need to consider personal trait characteristics when assessing managerial decision-making, financial reporting, and audit processes and outcomes (Griffith, Kadous, and Young 2016; Wibbeke and Lachmann 2020; Schneider and Kugel 2023), particularly traits associated with self-interested behaviors that are likely to increase agency costs and information risk (Jensen and Meckling 1976). As such, the DT personality traits of narcissism, Machiavellianism, and psychopathy have received meaningful attention in the accounting literature (Schneider and Kugel 2023).

Despite many studies on DT traits, it remains unclear which DT traits and their associated attitudes and behaviors (i.e., trait characteristics) have effects on the audited financial statements and what those effects are. Most accounting studies examine only a single DT trait, which complicates inferences about the DT as an interacting cluster of traits, as originally theorized (Paulhus and Williams 2002; Furnham et al. 2013). Further, the accounting literature focuses disproportionately on narcissism, which limits insight into the effect of the DT mostly to one of its three component traits. Thus, we lack clear perspective on whether the DT as a unitary construct matters, or whether narcissism matters in the presence of other DT traits, and so on. This is a problem insofar as DT traits have dissimilar directional effects on workplace decisions and behavior that determine individual and company performance, which extensive research suggests is the case (LeBreton, Shiverdecker, and Grimaldi 2018).

This paper aims to help researchers digest the existing DT research in accounting and inform productive DT research going forward. Specifically, we present a framework for analyzing how DT traits affect decisions in all stages of financial reporting—the operating choices that shape the performance being reported, the reporting choices that determine what is communicated to parties outside of the company itself, and the auditing of those communications. This framework will be of use to researchers interested in the effects of DT traits and other personality-based trait characteristics in a variety of accounting contexts.

The paper begins with a brief overview of DT traits and their importance in accounting. We then develop our framework for considering DT traits in accounting that takes into account the specific features and goals of operating, reporting, and assurance decisions. Last, we use the framework to develop holistic takeaways and identify avenues for future research.

II. THE DT AND ITS IMPORTANCE IN ACCOUNTING

A “Socially Malevolent Common Core”

The DT refers to the “socially malevolent common core” of three traits: narcissism, Machiavellianism, and psychopathy.¹ Paulhus and Williams (2002) argue that, given the traits’ common core of malevolence, it is beneficial to study the commonality among narcissism, Machiavellianism, and psychopathy as the DT. The DT as a composite collection of traits, as well as its individual component traits, is positively associated with impulsivity, thrill-seeking, and risk-taking behavior (Jones and Paulhus 2011; Crysel, Crosier, and Webster 2013) and is negatively associated with self-control (Jonason and Tost 2010) and agreeableness (Paulhus and Williams 2002; Jakobwitz and Egan 2006). In contrast, Furnham et al. (2013) argue that because the three DT traits are distinct constructs, they should be studied individually. Researchers take both approaches, and the prior literature has identified significant overlap among the characteristics of each component DT trait.

Although DT traits have been linked to positively viewed attributes such as charisma, confidence, and creativity (Campbell, Goodie, and Foster 2004; Jonason and Webster 2012; Jonason, Abboud, Tomé, Dummet, and Hazer 2017; Rogoza and Fatfouta 2020), the DT is typically viewed negatively, as it has come to represent a personality type predisposed to cold and manipulative behavior (Beck 2008).² Extensive research supports the idea that the DT and its component traits contribute to self-interested behaviors, such as lying or cheating, that are generally viewed as undesirable in accounting contexts. Thus, the DT as a composite trait is relevant to research questions where these behaviors are key mechanisms underlying hypothesized outcomes.³ Because the characteristics of component DT traits overlap and

¹ Although the concepts of narcissism and psychopathy originated in the clinical personality disorder literature, the observed traits in DT research are subclinical constructs. For further discussion, see Furnham et al. (2013).

² Each DT trait individually is associated with callousness, disagreeableness, dishonesty, and antagonism, among other behaviors (e.g., Paulhus and Williams 2002; Jones and Paulhus 2011; Jonason and Webster 2012; Crysel et al. 2013; Furnham et al. 2013; Muris, Merckelbach, O’gaar, and Meijer 2017). Consistent with this overlap, the three traits as a composite, which have each been studied extensively on their own, share a tendency toward “self-promotion, emotional coldness, duplicity and aggressiveness” (Paulhus and Williams 2002, 557).

³ Researchers have also considered potential redundancy between the DT personality trait model and general models of personality (e.g., Paulhus and Williams 2002; Jakobwitz and Egan 2006). In sum, the DT appears to represent a distinct cluster of personality traits that share different characteristics than the Big 5 or Honesty-Humility, Emotionality, eXtraversion, Agreeableness, Conscientiousness, and Openness to Experience (HEXACO) personality models and so should not be subsumed under these models.

diverge in nuanced ways, each trait may cause individuals to pursue their self-interest via different associated behaviors, which we review in more detail next.

Narcissism

A Google search of “famous narcissists” will yield a long list of founders of wildly successful startups, celebrity prima donnas, and cult leaders. What all of these individuals have in common is their track record of engaging in self-centered and charismatic behavior conducive to gaining power over their audiences and using it to satisfy their desire for attention. Narcissism is characterized by charisma, entitlement, and superiority (Corry, Merritt, Mrug, and Pamp 2008; Rogoza and Fatfouta 2020). As a result, narcissists tend to be extremely self-centered, seek praise from others at all costs, and show an absence of interest and empathy in others (Jones and Paulhus 2011). People higher in narcissism tend to use coercion, charm, debasement, and social comparison to achieve their objectives (Jonason and Webster 2012).

Machiavellianism

The Italian diplomat and philosopher Niccolò Machiavelli (1469–1527) famously advocated complex but also deceptive and unscrupulous tactics in pursuit of power, on the grounds that the ends justify the means. For example, in his treatise *The Prince*, he advises purposely creating enemies “so that, having crushed them, [one’s] reputation may rise higher” (Machiavelli 2018, 123). Thus, the use of cunning and duplicity to achieve one’s objectives characterizes Machiavellianism. This trait also manifests as cynicism, manipulative and amoral behavior, callousness, and a cold and calculating disposition (Christie and Geis 1970; Jakobwitz and Egan 2006; Jones and Paulhus 2009, 2011; Furnham et al. 2013). People higher in Machiavellianism typically use planning and preparation to achieve long-term goals by any means. They often have high levels of flexibility and situational awareness, and they leverage both honesty and deception depending on which tactic better achieves their goals (Jones and Paulhus 2011). To get away with deception, people higher in Machiavellianism tend to use charm, hardball persuasion methods, and seduction (Jonason and Webster 2012).

Psychopathy

Although many of us from time to time engage in impulsive behaviors such as speaking before we think or making an ill-advised impulsive purchase, and many of us from time to time lack the empathy to understand situations from someone else’s point of view, rarely would we consider ourselves to be psychopaths. Yet, these behaviors reflect the personality trait of psychopathy. Psychopathy is characterized by high levels of impulsivity and thrill-seeking, charisma, and low levels of empathy (Hare 1985; Paulhus and Williams 2002; Jones and Paulhus 2011; Jonason and Webster 2012; Crysel et al. 2013). In contrast with people higher in Machiavellianism, people higher in psychopathy do not typically coordinate deceptive acts in ways that allow them to reap long-term benefits. Rather, they tend to focus on short-term benefits, “getting what they want and getting it now,” regardless of risk or reputational impact (Jones and Paulhus 2011). People higher in psychopathy tend to use coercion and hardball persuasion methods to achieve these short-term benefits (Jonason and Webster 2012).

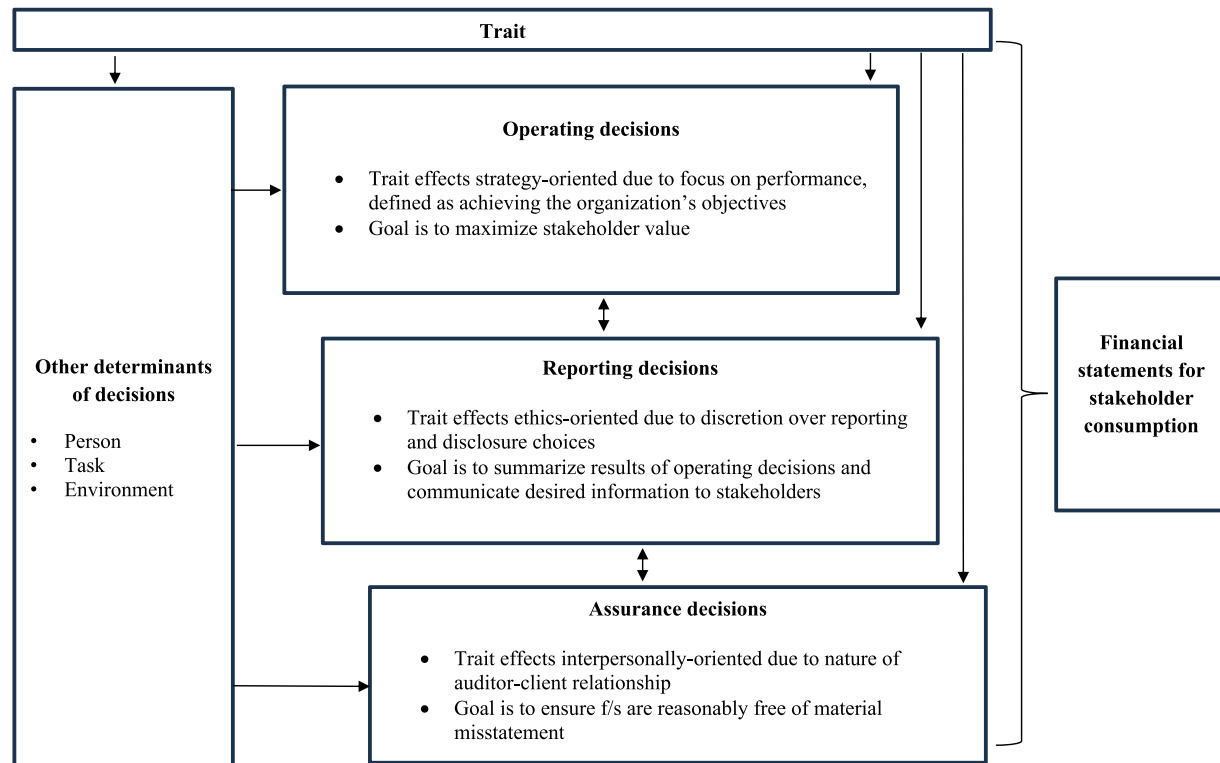
Framework: Trait Implications in Accounting Decisions

Prior research suggests the DT and its component traits may influence many types of decisions in accounting contexts. Indeed, the influence of DT traits may be amplified in accounting settings because their prevalence may be higher among corporate professionals than among the general population (Babiak et al. 2010), and companies are very likely to employ and reward people high in one or more DT trait (e.g., O’Reilly, Doerr, Caldwell, and Chatman 2014; Harris, Jackson, Owens, and Seybert 2022). However, other research suggests that, on average, accountants have *lower* levels of DT traits than other populations (Wakefield 2008; Bailey 2015, 2017; Janssen, Hardies, Vanstraelen, and Zehms 2021).⁴ There is minimal academic evidence regarding the prevalence of psychopathy in business settings (Smith and Lilienfeld 2013). The limited evidence suggests prevalence of this personality trait among professionals is low—likely because those higher in psychopathy are unlikely to follow rules, meet others’ expectations, or receive favorable performance evaluations (Babiak et al. 2010; Degges-White 2022).

Understanding the implications of DT traits for accounting decisions requires careful explication of the periodic and collaborative nature of the production of financial statements (Knechel, Thomas, and Driskill 2020). We define an

⁴ Interestingly, Triki, Cook, and Bay (2017) find higher levels of Machiavellianism in Canadian accountants than are typically reported for U.S. accountants, suggesting geographic differences could influence the prevalence of DT traits, even among demographically similar populations.

FIGURE 1
Framework: Trait Implications in Accounting Decisions



This figure illustrates the routes by which traits can influence operating, financial reporting, and assurance decisions that affect the content and presentation of audited financial statements. (The full-color version is available online.)

“accounting decision” as any decision made by an individual that impacts the financial statement production process. This definition implies financial statements are produced through the consolidation of individual and interrelated decisions about (1) operations that motivate employees and generate company results, (2) financial reporting that measures, summarizes, and communicates company results, and (3) assurance that evaluates the reliability of the reported company results.⁵ Each stage in this process is defined by organizational goals and features (discussed below), which dictate the decisions that must be made and are a useful starting point for thinking about how traits might ultimately influence the financial statements. Although we developed our framework for the purpose of examining DT traits, it can be applied to any trait of interest to researchers exploring trait-based effects on accounting decisions, as we discuss in detail later.

The framework shown in [Figure 1](#) reflects the idea that, because accounting decisions have sequential, recursive effects on the audited financial statements, so do relevant traits. The framework also reflects the idea that traits affect decisions in interaction with contextual decision determinants (e.g., [Majors 2016](#)). We begin with [Bonner’s \(2008\)](#) person, task, and environment taxonomy to conceptualize what “Other determinants of decisions” may be most relevant to consider in terms of potentially interacting with the trait of interest. Although the framework generalizes to traits beyond DT traits, hereafter we focus on DT traits.

Operating Decisions

Operating decisions involve making strategic judgments that contribute to a company’s goal of maximizing stakeholder value. The Committee of Sponsoring Organizations of the Treadway Commission’s (COSO) framework defines the objectives of operating decisions as “effectiveness and efficiency of the entity’s operations, including operational and

⁵ The decisions reflected in the framework are illustrative based on our understanding of the context and prior literature; they are not inclusive of all possible relevant accounting decisions.

financial performance goals, and safeguarding assets against loss” (Committee of Sponsoring Organizations of the Treadway Commission (COSO) 2013, 3). It follows that a defining feature of operating decisions is a focus on performance—facilitating, motivating, or rewarding it. Performance is directly influenced by a company’s strategies for resource allocation, growth, employee management, motivation, and so on. The DT as a composite trait is likely to play a role in strategic decisions due to characteristics such as risk-taking, dishonesty, and impulsivity, with potentially harmful effects on operating decisions made by rank-and-file employees up through the executive suite. In sum, operating decisions are unique in terms of their direct influence on performance, which increases the likelihood that competitive factors and related traits would also be relevant for operating decisions.

However, the effect of any characteristic (e.g., impulsivity) could differ depending on the component DT trait driving the behavior. For example, in addition to impulsivity, narcissism is associated with attention-seeking, whereas Machiavellianism and psychopathy are associated with neuroticism (Jakobwitz and Egan 2006; Jonason and Webster 2012). Thus, narcissism may contribute to ill-conceived, impulsive strategic decisions based on a desire for attention, whereas Machiavellianism and psychopathy may contribute to ill-conceived, impulsive strategic decisions based on a strong negative emotional (i.e., neurotic) reaction.⁶ Further, aspects of the performance measurement system used to motivate employees (e.g., compensation, awards), may interact differently with each component trait’s behaviors—for example, employees high in narcissism may respond more strongly and positively to highly visible forms of motivation, especially those likely to produce negative affect, than employees lower in narcissism but high on the other two component traits.

Reporting Decisions

Reporting decisions involve summarizing and communicating the results of operating decisions to “outsiders” (i.e., stakeholders and other users of financial statements). The COSO framework defines the objectives of reporting decisions as “internal and external financial and nonfinancial reporting and may encompass reliability, timeliness, transparency, or other terms as set forth by regulators, recognized standard setters, or the entity’s policies” (COSO 2013, 3). A defining feature of reporting decisions is the discretion involved in aggregating, labeling, and describing results in the financial statements and footnotes. Discretion creates opportunities to engage in dishonest or self-interested behavior that can harm others (Bentley 2019; Bloomfield 2018; Bentley, M. Bloomfield, R. Bloomfield, and Lambert 2023). Thus, ethics are especially important in reporting decisions, as are DT traits in ethical decision making (Wakefield 2008; Amernic and Craig 2010). The combination of self-interest and dishonesty that characterizes the DT underlies many of the decisions that lead to financial misreporting, from reporting choices that push the envelope but remain within GAAP, to more overt earnings management, and to outright fraud. Further, component DT traits appear to have distinct effects on beliefs about incentives, opportunities, and motivations to commit online sales fraud, which collectively relate positively to fraud intentions (Harrison, Summers, and Mennecke 2018). In sum, reporting decisions are unique in terms of the heightened importance of ethics when discretion is involved, which increases the likelihood of traits related to ethics and morals impacting these decisions.

Component DT traits may also have divergent effects on financial reporting decisions because people engage in dishonest behavior for different DT trait-driven reasons. To the extent that social comparison is more characteristic of narcissism (Jones and Paulhus 2011; Jonason and Webster 2012), if financial metrics do not measure up to those of one’s peers, someone higher in narcissism may be more prone to ethical lapses in reporting than those higher in other DT traits. Further, demonstrating the importance of context in interaction with any individual trait, the relationships between certain DT traits and dishonest behaviors are moderated by other factors such as risk of getting caught, ego depletion, and the deception target (Jones and Paulhus 2017).⁷ Thus, DT traits may contribute via various routes to less honest reporting decisions that take advantage of the discretion inherent to financial reporting.

Assurance Decisions

Assurance decisions involve assessing and responding to risks of material misstatement in financial statements to ensure their reliability. A defining feature of assurance decisions is the unique nature of the auditor-client relationship, which requires a careful balance of trust and skepticism. Many characteristics of DT traits relate to interpersonal

⁶ For example, consider an investment decision with suboptimal investment options A and B, and optimal investment option C. The attention-seeking narcissist may impulsively choose A if it brings them more attention than B or C, whereas the neurotic Machiavellian or psychopath may impulsively choose B if A and C elicit aversive emotional responses. In this example, satisfying the need for attention might improve the decisions of narcissists but not Machiavellians or psychopaths, whereas managing emotional states might improve the decisions of Machiavellians or psychopaths but not narcissists.

⁷ Ego depletion refers to the theory that mentally taxing tasks draw upon limited mental resources that can be “used up,” potentially impairing judgment in subsequent tasks (Baumeister 2002; Hurley 2023).

behavior because of their effects on how one treats others (e.g., callousness), what one expects from others (e.g., entitlement), and what one wants from others (e.g., attention). The necessity of balancing trust and skepticism for assurance decisions makes traits that affect interpersonal behavior of primary interest.⁸ That is, auditors and clients who often face opposing incentives must cooperate to share information, learn about a company's processes, and negotiate the numbers reported in the audited financial statements. Auditors' trust in client management can prevent them from constraining aggressive reporting (Lee, Welker, and Wang 2013; Griffith, Hammersley, and Kadous 2015), so some degree of "social malevolence" in auditors may be beneficial if it reduces this trust.

On the other hand, when auditors' incentives align with those of their clients, independence issues arise, calling into question the usefulness of the auditor. In such cases, DT traits in auditors may have a similar effect on assurance decisions as DT traits in managers have on reporting decisions, as auditors and their clients pursue a shared self-interest. Further, because of the interpersonal nature of assurance decisions, assurance decisions may be affected by DT traits in clients as well as DT traits in auditors (Church, Dai, Kuang, and Liu 2020; Hobson, Stern, and Zimelman 2020; Janssen et al. 2021; Bhaskar, Majors, and Vitalis 2023). In sum, assurance decisions are unique in terms of their interpersonal nature, which increases the likelihood of socio-personal factors affecting judgments and increases the number of parties through whom a trait might influence judgments.

Each auditor DT trait may also have its own unique effects on how auditors interact with and make decisions regarding their clients. For example, a self-absorbed, entitled narcissist (Corry et al. 2008) will approach requesting evidence from the client in a different manner than will a cynical, calculating Machiavellian (Jonason and Tost 2010) or an impulsive psychopath devoid of empathy (Jones and Paulhus 2011). The narcissist may waltz into a client's office and use their charm to obtain the requested evidence. The Machiavellian may "play nice" with the client by patiently waiting for the client to fulfill the request. The psychopath may simply demand the requested evidence without concern for the client's time or other responsibilities. These approaches may affect the auditor-client relationship, the independence of the audit team, evidence collection and interpretation, and ultimately the numbers reported in the financial statements (e.g., Saiewitz and Kida 2018; MacKenzie and Agolia 2024).

Each client DT trait observed by the auditor may also affect auditors' risk assessments and evidence evaluation, because these decisions depend partly on what auditors expect their clients to do (e.g., be forthcoming versus minimize contradictory evidence). That is, DT and other traits of the client and other contextual features of the audit can interact with the example approaches described above to further affect the auditor-client relationship and other audit quality-related outcomes.

Other Determinants of Decisions

Our framework emphasizes that traits do not influence decisions in isolation. Like any trait one might consider exploring under the "Person" category of determinants, DT traits work in interaction with other contextual determinants of decisions (e.g., Majors 2016; Griffith, Kadous, Young 2021). The framework illustrates that other determinants may be influenced by traits (i.e., mediate the effect of a trait) or may influence accounting decisions in interaction with traits (i.e., moderate the effect of a trait). These determinants pertain to the decision maker, the task, or the environment (Bonner 2008).⁹

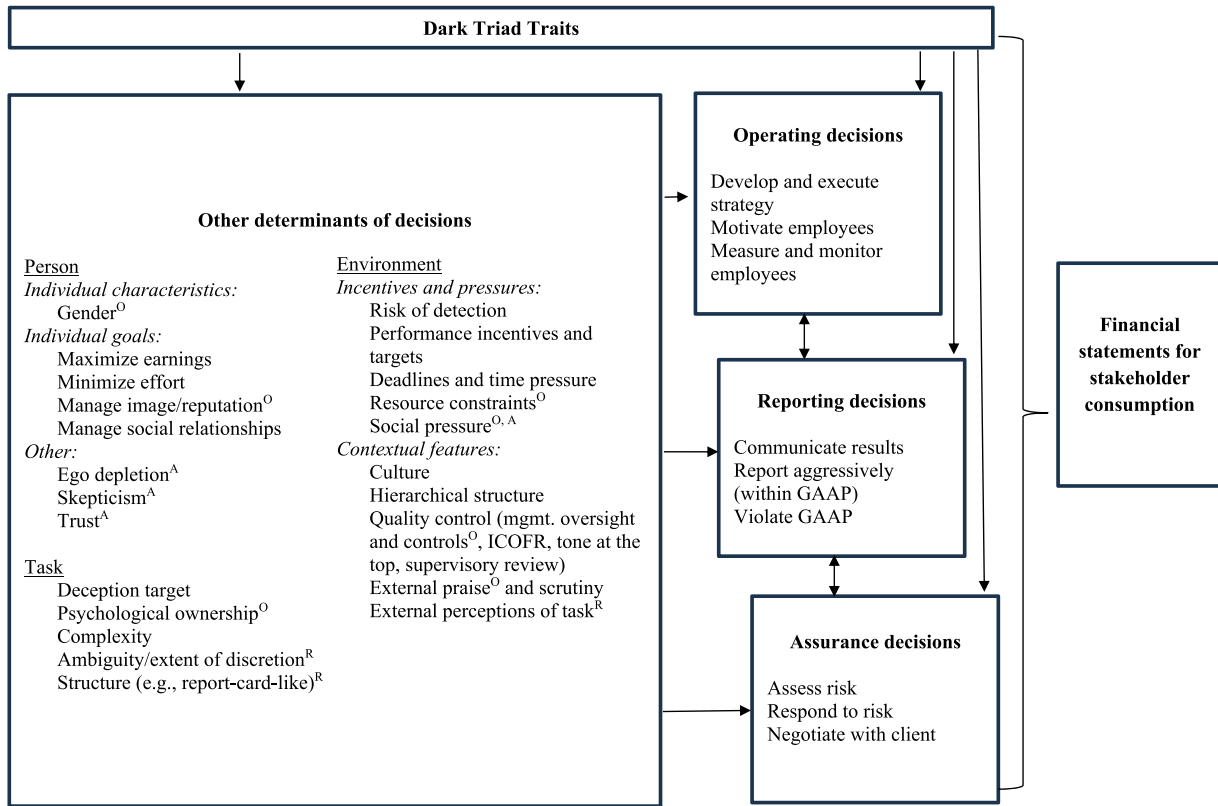
An example of another person-specific determinant of accounting decisions that DT traits might interact with is gender, which is prominent in DT studies and is particularly relevant due to the gender imbalance in many business settings. For example, men are more often in positions of organizational power, and men tend to have higher levels of DT traits than women (Paulhus and Williams 2002; Jonason, Wee, Li, and Jackson 2014; Muris et al. 2017; Vedel and Thomsen 2017; Jonason and Fletcher 2018). Further, women CEOs tend to be less narcissistic than men CEOs (Ingersoll, Glass, Cook, and Olsen 2019).¹⁰ An example of a task-specific determinant is task ambiguity. Indeed, CEOs with DT traits

⁸ For example, as noted by Malsch and Gendron (2013, 872), "The forced cohabitation of commercialism and professionalism is not conducive to the emergence of a stable organizational archetype. Instead, the dynamics of the field is reflective of fragility and instability in the patterns of social relationships surrounding the reproduction of the structure of domination within the field." In other words, because conflicting commercialism and professionalism rationales motivate auditors, their interpersonal dynamics with management often determine how closely aligned auditors' incentives are with management.

⁹ DT traits themselves constitute person-specific determinants within Bonner's (2008) taxonomy. Analyzing the effect of a trait on accounting decisions requires conceptualizing the focal trait separately from other relevant traits that function as decision determinants (i.e., mediators or moderators) as shown in Figures 1 and 2. Indeed, a synthesis of a different trait would likely include DT traits as person-specific "Other" decision determinants.

¹⁰ The association between DT traits and decision making can also vary by gender. For example, measures of Machiavellianism and the overall DT are more strongly correlated with consideration of future consequences in men than in women (Jonason and Tost 2010), and Machiavellianism is associated with greater lie detection ability only for women (Lyons, Croft, Fairhurst, Varley, and Wilson 2017). Yet, not all studies find gender differences in DT traits and their effects. For example, in one study, male and female participants' levels of narcissism and Machiavellianism did not differ (although men scored higher on psychopathy) (Rapp-Ricciardi, Widh, Barbieri, Amato, and Archer 2018), and in another the association between DT traits and creativity did not vary with gender (Jonason et al. 2017).

FIGURE 2
Synthesis of Research on the Influence of DT Traits in Accounting



This figure presents an overview of our synthesis of DT research in accounting using our framework. For each paper in our sample of 63 accounting DT studies, we identified the specific operating, reporting, or assurance decisions examined as shown in the respective boxes above. We identified the other determinants of decisions shown in the left-most box based on the determinants implicitly or explicitly included in the 63 studies, our conceptual understanding of the DT and its component traits based on our review of the general DT literature, and our familiarity with relevant person, task, and environment factors (Bonner 2008) from the accounting literature. Determinants contemplated in the 63 accounting DT studies are denoted with O, R, or A superscripts to indicate whether they appeared in operating, reporting, or assurance studies, respectively. (The full-color version is available online.)

seem to opportunistically take advantage of ambiguity in accounting requirements, such as those related to non-GAAP earnings, to present organizational results more favorably (Abdel-Meguid, Jennings, Olsen, and Soliman 2021). An example of an environment-specific determinant is social pressure. Hartmann and Maas (2010) suggest that controllers with DT traits may be more susceptible to social pressure to create budgetary slack. Figure 2 presents additional person, task, and environment determinants that have been studied or that are unstudied but likely relevant in DT accounting research.

III. SYNTHESIS METHOD

We conducted a broad review of the research on the DT and component DT traits in the psychology, organizational behavior, and accounting literatures. We used Google Scholar and SSRN to locate papers with one or more of the terms “Dark Triad,” “psychopathy,” “Machiavellianism,” and “narcissism” in the title. Our initial search identified over 800 papers that fit these criteria. We used the nonaccounting studies we identified to inform our understanding of DT traits and how they overlap, and to inform our synthesis of the accounting literature.¹¹ For the DT studies

¹¹ We do not intend our review of the DT literature or our synthesis of the accounting literature to be exhaustive of all relevant research. Rather, we aim to understand the DT, its component traits, and the extant accounting research well enough to make inferences about the effects of DT traits in operating, reporting, and assurance decisions that can help researchers digest, evaluate, and extend the accounting literature.

that examine accounting decisions, we reviewed each paper to determine whether it examined an operating, reporting, or assurance decision.¹² This process identified 62 papers that examine DT traits and accounting decisions. Two authors independently categorized the papers as relating to operating decisions (30 papers), reporting decisions (20 papers), or assurance decisions (12 papers) as shown in [Tables 1–3](#). All authors met to discuss and finalize the categorization.

We synthesize these studies using the framework shown in [Figure 1](#) to understand how DT traits impact operating, reporting, and assurance decisions, and ultimately the audited financial statements. For each paper in our sample of 62, we identified the specific accounting decision that can contribute to the company's goals of maximizing stakeholder value (operating decisions), summarizing and communicating information about operations (reporting decisions), or ensuring the financial statements are reasonably free of material misstatement (assurance decisions). We also identify person, task, and environment determinants that we expect to influence these decisions in combination with DT traits. Although prior accounting research explicitly or implicitly considers some of these determinants, others are drawn from our familiarity with accounting research combined with our conceptual understanding of DT traits. With these decisions and determinants in mind, we make holistic inferences about DT trait effects in the audited financial statements based on the findings of the 62 studies. We discuss DT trait measurement issues in [Appendix A](#).

IV. ACCOUNTING LITERATURE SYNTHESIS

We present an overview of our synthesis of DT accounting research in [Figure 2](#). As shown, DT traits have not been extensively studied in accounting, so the insights from our synthesis are primarily of use in identifying future research opportunities rather than in supporting strong evidence-based inferences. Accordingly, we contemplate areas for future research throughout the synthesis.

Operating Decisions

Focus of Extant Literature

As shown in [Table 1](#), the extant literature examining operating decisions focuses mostly on narcissism. Of the 20 studies that examine this trait, five use a validated measure, 12 rely on an observable proxy such as signature size or use of personal pronouns in the annual report, and one study uses both a validated measure and an observable proxy. The remaining studies either experimentally manipulate the construct or do not measure it specifically. Four studies examine Machiavellianism and three examine psychopathy; these studies all use validated measures. Although there are notably more studies on operating decisions than on reporting or assurance decisions, only three operating decision studies examine the DT as a composite.

About half of the operating decision studies are archival, whereas the rest are a mix of experiments and surveys. The archival studies primarily examine strategy decisions (e.g., acquisitions, capital expenditures, R&D decisions) and many use features of the annual report such as photo or signature size as proxies for measures of narcissism. The experiments and surveys focus on a variety of decisions (e.g., inventory write-downs, performance assessments, budgetary slack). The behavioral studies tend to use students and online workers as participants, although a few use accountants or general professionals.

Key Insights from Synthesis: Operating Decisions

As depicted in [Figure 2](#), the operating decisions examined include decisions made by executives about company strategy, and decisions made by and about employees in terms of their individual-level motivation and performance, performance measurement, and monitoring. For the most part, the DT seems to align with decisions that result in suboptimal company outcomes, driving more risk-taking and aggressive approaches among executives and more self-interested opportunistic behavior among employees.

Many of the operating decision studies document positive associations between executive narcissism and aggressive, risky strategic decisions that seem to reflect the attention- and acclaim-seeking behaviors linked to narcissism. Proxies for CEO narcissism are positively associated with number and size of acquisitions ([Chatterjee and Hambrick 2007](#)), aggressive tax avoidance and use of tax shelters ([Olsen and Stekelberg 2016](#)), litigation risk ([O'Reilly, Doerr, and](#)

¹² We omitted from this analysis any papers that were not available in English or were published in obscure or predatory journals. These journals had an average citation count of less than five (per the Scimago Journal Ranking at <https://www.scimagojr.com/>) or were listed in Cabell's Predatory Reports.

TABLE 1
Studies Examining the DT in Accounting Contexts That Relate to Operating Decisions

Citation	DT Trait(s) Examined	Measure(s)	Decision Maker	Decision Outcome(s) Examined	Measure of Decision Outcome
Aktas et al. (2016)	Narcissism	Custom proxy	CEOs	Corporate takeover behavior	Various
Babiak et al. (2010)	Psychopathy	PCL-R	Corporate Executives	Executive performance	In-house performance assessment ratings
Bailey (2015)	Psychopathy	LSRP	Academic accountants	Acceptance of unethical research practices	Survey response
Bailey (2017)	Psychopathy	LSRP	Accounting students	Acceptance of unethical business practices	Survey response
Brown et al. (2021)	Machiavellianism	Mach IV	Amazon Mechanical Turk workers	Creation of budgetary slack	Budget request
Buyl et al. (2019)	Narcissism	Custom proxy	CEOs	Risk-taking behavior	Loan activity
Chatterjee and Hambrick (2007)	Narcissism	Custom proxy	CEOs	Strategic dynamism	Corporate acquisition behavior and various others
Chatterjee and Hambrick (2011)	Narcissism	Custom proxy	CEOs	Risk-taking behavior	Corporate acquisition behavior and various others
Chatterjee and Pollock (2017)	Narcissism	Custom proxy	CEOs	Pursuit of celebrity and dominance over other management team members	Various
Craig and Amerinc (2011)	Narcissism	Custom proxy	CEOs	Shareholder letter contents	Textual analysis of shareholder letters
Davis et al. (2023)	Overall DT	SD3	Students	Reporting of ethical violations	Assessed likelihood that ethical violation would be reported
Ham et al. (2018)	Narcissism	NPI; Custom proxy	CEOs	Company investment policies and financial performance	Capital, R&D, and M&A expenditures
Harris et al. (2022)	Overall DT	DT traits manipulated, not measured	Employees ^a	Likelihood of being hired	Likelihood of hiring consultant referring candidate for an interview
Hartmann and Maas (2010)	Machiavellianism	Mach IV	Employees	Creation of budgetary slack	Assessed likelihood that employee would create budgetary slack
Hayes and Reckers (2020)	Narcissism	GNS	Supervisor ^a	Enjoyment of working with a subordinate; Scrutiny and adjustment of subordinate's work	Assessed perception of the subordinate, likelihood of adjusting subordinate's work
Hayes and Reckers (2022)	Narcissism	Narcissism manipulated, not measured	Managers ^a	Managers attitudes toward a subordinate	Assessed perception of the subordinate
Ingersoll et al. (2019)	Narcissism	Custom proxy	Female CEOs	Risk-taking and unethical behavior	Various

(continued on next page)

TABLE 1 (continued)

Citation	DT Trait(s) Examined	Measure(s)	Decision Maker	Decision Outcome(s) Examined	Measure of Decision Outcome
Libby and Olczak (2023)	Narcissism	SD3	Employees	Employee performance	Performance on an effort-sensitive task
O'Reilly et al. (2014)	Narcissism	NPI	Board of Directors ^a	CEO compensation	Various
O'Reilly et al. (2018)	Narcissism	NPI	CEOs ^a	Company vulnerability to lawsuits	Number and average length of lawsuits
Olsen and Stekelberg (2016)	Narcissism	Custom proxy	CEOs	Use of corporate tax shelters	Probability that the company utilizes a corporate tax shelter
Patel and Cooper (2014)	Narcissism	Custom proxy	CEOs	Risk-taking behavior	Performance surrounding an economic crisis
Petrenko et al. (2016)	Narcissism	NPI	CEOs	Corporate social responsibility initiatives	Corporate philanthropy media profile
Shang et al. (2023)	Narcissism	Custom proxy	Employees ^a	Setting of performance targets; Employee dysfunctional behavior	Assessed difficulty of achieving a performance target; Dysfunctional selling behavior
Triki et al. (2017)	Machiavellianism	Mach IV	Accountants	Trait prevalence, ethical orientation, anti-intellectualism	Various
Van Scotter and Roglio (2020)	Narcissism	Custom proxy	CEOs	Risk-taking and ethical misconduct	Review of news reports related to the company
Wakefield (2008)	Machiavellianism	Mach IV	Employees	Embrace of ethical relativism versus ethical idealism Career satisfaction	Survey response
Wang (2017)	Overall DT	Dirty Dozen	Employees	Productive effort	Performance on experimental task
Young et al. (2016)	Narcissism	None	Employees	Preference for public versus private rewards; Effectiveness of various management control types	Decision outcome not measured
Zhu and Chen (2015)	Narcissism	Custom proxy	CEOs	Corporate acquisition behavior	Various

Custom proxies rely on observable measures theorized or shown to be correlated with DT measures from validated scales. Examples include first-person pronoun use (Aktas et al. 2016), prominence of the CEO's photograph in a press release (Chatterjee and Hambrick 2007), and executive pay relative to others in the executive team (O'Reilly et al. 2014). The papers listed above use different combinations of these proxies. See Appendix A for further discussion of various measurement considerations.

LSRP = Levenson Self-Report Psychopathy Scale; Mach IV = scale for Machiavellianism; SD3 = Short DT; NPI = Narcissistic Personality Inventory; GNS = Grandiose Narcissism Scale.

^a Decision target has DT traits instead of or in addition to decision maker.

Chatman 2018), and other proxies for risky strategic decisions (e.g., Patel and Cooper 2014; Buyl, Boone, and Wade 2019).¹³ Social praise appears to embolden narcissistic people to make these risky decisions (Chatterjee and Hambrick 2011). Further, these decisions do not appear to help corporate performance (e.g., Chatterjee and Hambrick 2007; Petrenko, Aime, Ridge, and Hill 2016). Interestingly, the impact of narcissism on executive risk-taking may depend on gender, as female CEOs tend to be less narcissistic than male CEOs (Ingersoll et al. 2019), and more narcissistic women engage in less risk-taking and fewer questionable behaviors than more narcissistic men.

Narcissism in executives also seems to result in suboptimal strategic decisions due to overconfidence. CEO narcissism is positively associated with overinvestment in research and development, merger and acquisition expenditures, and compensation, but negatively associated with profitability and operating cash flows (Ham, Seybert, and Wang 2018). More narcissistic CEOs are more likely than other CEOs to adopt strategies based on their own prior experience, and less likely to be influenced by fellow directors' experiences (Zhu and Chen 2015). In the corporate takeover setting, more narcissistic acquirer CEOs negotiate faster and initiate more deals, but narcissism in acquirer and target CEOs is associated with a lower probability of deal completion and lower likelihood that the target CEO will be employed by the merged company (Aktas, de Bodt, Bollaert, and Roll 2016).

The studies that examine employee motivation decisions suggest that employees with high levels of DT traits may respond to corporate motivation policies in suboptimal ways. Machiavellianism is associated with managerial opportunism as evidenced by their greater use of budgetary slack (Hartmann and Maas 2010; Brown, Majors, and Vance 2021), consistent with the image of a calculating, future-oriented Machiavellian. This opportunistic behavior is exacerbated by social pressure and higher management operational involvement (Hartmann and Maas 2010) and is insensitive to psychological ownership arising from the nature of their compensation contract (Brown, Majors, and Vance 2021). Further, narcissistic managers encourage subordinates to engage in dysfunctional behaviors to artificially achieve performance targets (Shang, Wang, and Zu 2023).

Narcissism is also associated with managerial opportunism in decisions related to performance measurement and monitoring systems. Employees higher in narcissism are more likely to establish self-centered goals that clash with company goals, which can result in less compliance with controls and be detrimental to supervisory review practices (Young, Du, Dworkis, and Olsen 2016; Hayes and Reckers 2020).

The remaining studies in the operating section of our synthesis focus on other decision-related factors that affect the company's operational environment, such as DT trait prevalence, acceptability of unethical practices, and ethical orientation.¹⁴ Three of these studies focus on psychopathy in operating contexts and suggest this trait is generally undesirable among managers and likely to harm operating decisions (Bailey 2015, 2017; Babiak et al. 2010). Overall, the effects of psychopathy on operating decisions remain largely unexplored.

Summary and Opportunities for Future Research: Operating Decisions

In sum, the research examining operating decisions suggests DT traits are associated with decisions reflective of attention-seeking, overconfidence, and opportunism. Although in some instances these decisions could lead to positive company outcomes (by design or incidentally), evidence generally suggests that they harm company operating performance and/or reputation.¹⁵ Illustrating the cascading effects of DT traits on financial statements in our framework, the outcomes of DT-influenced operating decisions can put companies into financial positions that raise the likelihood of aggressive or fraudulent financial reporting decisions later in the financial statement production process.

Our synthesis suggests several opportunities for DT trait research on operating decisions. First, the research in this area largely focuses on narcissism. This may be due to the relative availability of archival proxies for narcissism, so opportunities exist to develop observable proxies for Machiavellianism and psychopathy.¹⁶ Further, although most prior research has used archival data and methods, surveys could be used to measure DT traits more reliably, whereas experiments could be used to manipulate the salience of these traits.¹⁷ Regardless of how the traits are measured or manipulated, opportunities for comparing the effects of individual traits against each other and against a person's

¹³ Chatterjee and Hambrick (2007) use as a proxy a five-item narcissism index they developed that includes: (1) prominence of the CEO photograph in the annual report, (2) prominence of the CEO in press releases, (3) use of first-person pronouns in CEO interviews, (4) ratio of CEO cash compensation to the second-highest paid company executive, and (5) ratio of CEO bonus compensation to the second-highest paid company executive.

¹⁴ Although the operational environment affects and is affected by both operating and reporting decisions, we discuss these papers here because they do not specifically relate to reporting decisions, which we define more narrowly as involving communication.

¹⁵ Interestingly, O'Reilly et al. (2014) find that organizational decision makers (e.g., supervisors, board members) pay higher wages to more narcissistic CEOs.

¹⁶ For example, researchers might consider observable proxies that might indicate a strong interest in strategy (e.g., game playing) as candidates for reflecting Machiavellianism and impulsivity (e.g. frequent shifts in strategy) as candidates for reflecting psychopathy.

¹⁷ Experiments could be used to examine, for example, how features of the performance measurement and control system affect the extent to which traits manifest and affect decisions and outcomes.

overall DT trait level exist. For example, managers high in narcissism may be able to use their interpersonal skills to respond to strategic opportunities more effectively, whereas those high in psychopathy are likely at a relative disadvantage.

Second, although several studies invoke various person, task, and environment factors in their theorizing, opportunities remain to explicitly test how the effects of DT traits vary depending on other determinants of operating decisions. For example, the negative effects of DT traits on company performance may be exacerbated when executives have fewer resource constraints to pursue strategic initiatives. Conversely, the negative effects of DT traits may be mitigated when the company's incentives clearly align with the personal incentives of lower-level employees making budgeting and other decisions that are vulnerable to opportunism. Future research can examine the effect of interventions that aim to address the operating risks associated with DT traits (e.g., stronger risk management controls, review protocols aimed at addressing overconfidence in acquisition and investment strategies), or that aim to provide narcissistic executives with opportunities for eliciting attention in venues that are not directly related to company performance (e.g., media interviews, presentations at corporate retreats).

One challenge facing future research will be to carefully articulate a study's practical value and contribution to theory. Trait-based research in an applied field like accounting will be more successful if it contributes something more than a greater understanding of the trait and its effects on a specific accounting decision. Practical contributions of trait-based work are somewhat naturally limited by the extent to which a trait is identifiable and, if so, the extent to which the trait can or should be managed.

Reporting Decisions

Focus of Extant Literature

As shown in [Table 2](#), the extant literature examining reporting decisions also focuses mostly on narcissism. Of the 13 studies that examine this trait, six use a validated measure and five use an observable proxy. The remaining studies either experimentally manipulate narcissism or do not measure it. Four studies examine Machiavellianism using validated measures, and three studies examine the composite DT construct using validated measures.

About half of the reporting studies are archival, whereas the rest are a mix of experiments and surveys. The archival studies primarily examine measures of financial reporting quality, such as discretionary accruals and restatements. The experiments and surveys focus on the quality of reporting choices and attitudes toward misreporting. Most of the surveys and experiments use students and online workers as participants, although one survey uses practicing accountants.

Key Insights from Synthesis: Reporting Decisions

As depicted in [Figure 2](#), the reporting decisions examined include decisions about communicating results, reporting aggressively (but still within GAAP), and violating GAAP. Communication and reporting decisions allow substantial discretion; there is rarely a clearly "right" or "wrong" way to communicate or to apply GAAP. Even decisions to violate GAAP are born of the discretion allowed in financial reporting; these decisions differ from aggressive reporting decisions in degree only as the decision maker pushed the envelope too far (and got caught) in cases of GAAP violations. The DT often aligns with reporting decisions that result in suboptimal company outcomes, as it seems that decision makers higher in DT traits often pursue and achieve contradictory self-serving goals that are served by misrepresenting or keeping certain information from stakeholders.

The reporting studies that examine communication decisions find that narcissism among executives relates to how they manage and frame their messages. These studies suggest the discretion present in communication decisions (e.g., tone, frequency, content of required or voluntary disclosures) allows characteristics of narcissism such as attention-seeking to manifest. For example, CEO narcissism is associated with positive bias in the tone of earnings announcements and 10-K filings, as well as the likelihood of issuing earnings guidance—an attention-getting device that results in more accurate, although positively biased, analyst forecasts ([Buchholz, Jaeschke, Lopatta, and Maas 2018](#); [Marquez-Illescas, Zebedee, and Zhou 2019](#); [Marquez-Illescas and Zhou 2023](#)). CEOs also have discretion over what to include in non-GAAP earnings, and narcissism in CEOs is positively associated with opportunistically excluding expenses from non-GAAP earnings and with the persistence of these exclusions ([Abdel-Meguid et al. 2021](#)).

The studies examining within-GAAP aggressive reporting or earnings management consider how Machiavellianism and narcissism relate to reporting choices that obscure the true financial results or how these traits relate to attitudes toward misreporting. [Amernic and Craig \(2010\)](#) posit that the report-card-like nature and malleability of financial reporting combined with the perception that financial reports are neutral, objective, and independent might enable more narcissistic CEOs to engage in earnings management as a form of ego preservation. This individual goal combined with

TABLE 2
Studies Examining the DT in Accounting Contexts That Relate to Reporting Decisions

Citation	DT Trait(s) Examined	Measure(s)	Decision Maker	Decision Outcome(s) Examined	Measure of Decision Outcome
Abdel-Meguid et al. (2021), Amernic and Craig (2010), Brown et al. (2014)	Narcissism Narcissism Machiavellianism	Custom proxy None SD3	CEOs CEOs Students	Financial reporting quality Financial reporting quality Honesty in a reporting task	Various Decision outcome not measured Misreporting exhibited in an experimental task
Buchholz et al. (2018)	Narcissism	CNS	CEOs	Management tone and R&D expenditures	Various
Buchholz et al. (2020)	Narcissism	CNS	CEOs	Financial reporting quality	Various
Capalbo et al. (2018)	Narcissism	NPI	CEOs	Financial reporting quality	Discretionary accruals
Chen (2010)	Narcissism	None	CEOs	Unethical financial reporting behavior	Differences between real and simulated asset values
D'Souza and de Lima (2015)	Overall DT	SD3	Managers	Opportunistic reporting behavior	Survey response
Ghosh and Crain (1996)	Machiavellianism	Mach IV	Students	Honesty in a tax reporting task	Difference between reported and actual amounts
Hales et al. (2016)	Narcissism	NPI	Students	Honesty in a reporting task	Various
Ham et al. (2017)	Narcissism	NPI	CEOs, Students	Honesty in a reporting task; Financial reporting quality	Various
Kontesa et al. (2021)	Narcissism	Custom proxy	CEOs	Earnings management	Discretionary accruals
Majors (2016)	Overall DT	SD3	Students	Honesty in a reporting task	Amount by which a reported amount falls below the lower bound of an acceptable range
Marquez-Illescas et al. (2019)	Narcissism	Custom proxy	CEOs	Tone used in earnings announcements	Estimated tone in earnings announcements
Marquez-Illescas and Zhou (2023)	Narcissism	Custom proxy	CEOs	Accuracy and dispersion of analyst forecasts	Estimated accuracy and dispersion of analyst forecasts
Murphy (2012)	Machiavellianism	Mach IV	Students	Misreporting of quiz performance, rationalization of misreporting, and negative affect	Misreporting in an experimental task
Mutschmann et al. (2022)	Overall DT	Dirty Dozen	Corporate accountants	Financial reporting manipulation	Survey
Olsen et al. (2014)	Narcissism	Custom proxy	CEOs	Financial reporting quality	Various
Rijssenbilt and Commandeur (2013)	Narcissism	NPI	CEOs	Issuance of SEC AAERs	AAERs found
Shafer and Wang (2011)	Machiavellianism	Mach IV	Corporate accountants	Attitudes toward earnings management	Survey

Custom proxies rely on observable measures theorized or shown to be correlated with DT measures from validated scales. Examples include first-person pronoun use (Aktas et al. 2016), prominence of the CEO's photograph in a press release (Chatterjee and Hambrick 2007), and executive pay relative to others in the executive team (O'Reilly et al. 2014). The papers listed above use different combinations of these proxies. See Appendix A for further discussion of various measurement considerations.
 CNS = Childhood Narcissism Scale.

comfort with dishonesty and a lack of remorse, all of which accompany DT traits, seems conducive to reporting decisions that obscure the true nature of results. Positive associations between the acceptability or prevalence of unethical reporting behavior and two DT traits broadly comport with these ideas. First, Machiavellianism is positively associated with acceptance of earnings management and misreporting for financial gain and negatively associated with guilt about misreporting (Shafer and Wang 2011; Murphy 2012). Second, narcissism is positively associated with discretionary accruals and other earnings management proxies (Olsen, Dworkis, and Young 2014; Capalbo, Frino, Lim, Mollica, and Palumbo 2018; Buchholz, Lopatta, and Maas 2020; Kontesa, Brahmana, and Tong 2021). Multiple experiments find similar relationships between executive narcissism and dishonest reporting (Hales, Hobson, and Resutek 2016; Ham, Lang, Seybert, and Wang 2017).

Reporting decision studies that examine outright GAAP violations implicate all three DT traits but offer limited insight into mechanisms underlying these relationships.¹⁸ DT traits are positively associated with GAAP violations, including premature recording of profits, intentional tax misreporting, and fraud reported in Securities and Exchange Commission (SEC) Accounting and Auditing Enforcement Releases (AAERs) (Ghosh and Crain 1996; Rijssenbilt and Commandeur 2013; D'Souza and de Lima 2015). Finally, a survey of accounting and finance professionals reveals a positive relationship between Machiavellianism, narcissism, and psychopathy in managers and the prevalence of fraudulent accounting practices in their respective accounting and finance departments (Mutschmann, Hasso, and Pelster 2022).

Summary and Opportunities for Future Research: Reporting Decisions

In sum, DT traits appear to be associated with decisions reflective of self-aggrandizement, ego preservation, and comfort with and lack of guilt about dishonesty. These decisions can reduce financial reporting quality, evidenced by negative outcomes such as restatements or AAERs. The outcomes resulting from DT-influenced reporting decisions can increase companies' exposure to inaccurate financial reporting and the risks arising from it (reputational damage, penalties, etc.), which, as shown in the framework, affect assurance decisions related to risk assessment.

Our literature synthesis suggests several opportunities for DT trait research on reporting decisions. Given that the research in this area also primarily focuses on narcissism, a logical next step is to examine how the other DT traits impact financial reporting decisions. Finding and documenting areas where predicted effects vary based on the specific trait and/or type of reporting decision (e.g., communication versus misreporting) could both extend theory and inform practice. For example, researchers could create or exploit situations in which the ego-driven goals characteristic of narcissism and the strategic, future-oriented goals characteristic of Machiavellianism conflict to examine the potentially opposing effects of these traits.

Researchers could examine potential interactions between DT traits and other predictors of financial reporting aggressiveness (e.g., accounting conservatism and overconfidence), and can explore the mechanisms (e.g., attention seeking) by which DT traits affect reporting decisions, particularly when considering interventions to mitigate unwanted behavior.¹⁹ For example, since aggressive reporting may serve as a form of ego preservation for executives, researchers could explore ways to reduce the ego-threat of missed benchmarks or less aggressive growth, and/or ways to increase the ego-threat of biased communication and unreliable reporting.

One challenge in this research will be the inability to measure DT trait levels in those making reporting decisions (i.e., with validated scales), particularly for large-sample analyses. Multimethod designs can leverage the relative strengths of archival, experimental, and/or qualitative approaches to bolster their theoretical contribution (e.g., Church et al. 2020). Researchers may also prioritize practice-relevant research questions that can be addressed without these measures, such as how to minimize the negative consequences of high DT traits (e.g., dishonesty) without knowing individuals' levels of DT traits and without harming decisions made by those lower in DT traits.

Assurance Decisions

Focus of Extant Literature

As shown in Table 3, the extant literature examining assurance decisions also focuses mostly on narcissism. Of the eight studies that examine this trait, two use a validated measure, four use observable proxies, one manipulates the trait,

¹⁸ Since these decisions can be viewed as more extreme cases of the aggressive reporting decisions discussed previously, we speculate that the impact of DT traits on their outcomes occurs through similar mechanisms such as ego preservation, comfort with dishonesty, and lack of guilt or remorse.

¹⁹ Although directly measuring DT trait prevalence among executives is not realistic, boards and audit committees can monitor executives for behaviors consistent with one or more DT trait (e.g., excessive risk-taking), since such behavior could suggest an elevated risk that executives will make reporting decisions that harm the company by not adhering to relevant standards of reliability.

TABLE 3
Studies Examining the DT in Accounting Contexts That Relate to Assurance Decisions

Citation	DT Trait(s) Examined	Measure(s)	Decision Maker	Decision Outcome(s) Examined	Measure of Decision Outcome
Bhaskar et al. (2023)	Overall DT	SD3	Students	Auditor-client negotiation outcomes	Various
Chou et al. (2021)	Narcissism	Custom proxy	Audit partners	Audit quality	Abnormal accruals and restatements
Church et al. (2020)	Narcissism	NPI	Audit partners, Students	Auditor-client negotiation outcomes	Various
Dikolli et al. (2020)	Narcissism	Custom proxy	Audit partners ^a	Audit effort	Audit fees, restatements, and 10b-5 class action lawsuits
Hobson et al. (2020)	Overall DT	SD3	Auditors, Students	Trust in management	Various
Janssen et al. (2021)	Narcissism	SD3	Auditors	Behavioral intentions, professional skepticism, and skeptical actions	Various
Johnson et al. (2013)	Machiavellianism Psychopathy Narcissism	DT traits manipulated, not measured	Auditors ^a	Fraud risk assessments	Expressed fraud risk assessment
Johnson et al. (2021)	Narcissism	Client DT traits	Auditors ^a	Risk of material misstatement, trust in management	Various
Judd et al. (2017)	Narcissism	manipulated, auditor DT traits measured with NPI Custom proxy	Auditors ^a	Audit quality	Audit fees and material weakness disclosures
Shome and Rao (2009)	Machiavellianism	Mach IV	Auditors	Trait prevalence	Survey
Thompson and Stefaniak (2019)	Overall DT	SD3	Auditors	Audit risk assessments	Expressed fraud risk assessment
Takada et al. 2021	Narcissism	Custom proxy	Auditors	Audit quality	Discretionary accruals

Custom proxies rely on observable measures theorized or shown to be correlated with DT measures from validated scales. Examples include first-person pronoun use (Aktas et al. 2016), prominence of the CEO's photograph in a press release (Chatterjee and Hambrick 2007), and executive pay relative to others in the executive team (O'Reilly et al. 2014). The papers listed above use different combinations of these proxies. See Appendix A for further discussion of various measurement considerations.

^a Decision target has DT traits instead of or in addition to decision maker.

and one uses both a validated measure to assess auditor narcissism and manipulates client narcissism. Finally, one study examines Machiavellianism, one examines all three DT traits, and three examine the overall DT construct, all using validated measures.

About half of the assurance decision studies are archival, whereas the rest are experiments and surveys. The archival studies primarily examine audit quality and audit effort, and many use features of the annual report such as a photo or signature size as proxies for measures of narcissism. The experiments and surveys focus on a mix of auditor-client negotiation outcomes, risk assessments, and professional skepticism and trust in management. The behavioral studies tend to use auditors as participants, although three use students.

Key Insights from Synthesis: Assurance Decisions

As depicted in [Figure 2](#), the assurance decisions examined include assessing risk, responding to risk, and negotiating with clients. In assurance decisions, the decision-maker is the auditor, whose self-interest is not as vulnerable to poor financial results as an executive or employee of the company. Rather, it is in the auditor's self-interest to balance commercial concerns, such as appeasing the client and maximizing audit fees while, at the same time, adhering to professional standards and avoiding audit failure. In contrast to operating and reporting decisions, assurance decisions sometimes seem to benefit from the influence of DT traits in the decision-maker, likely due to the distrusting, confrontational, and superiority-seeking behaviors associated with DT traits, which may facilitate professional skepticism. Indeed, due to the interpersonal nature of assurance decisions (i.e., auditor versus client), the individual goals of auditors with higher DT trait levels, such as “winning” or dominating in social interactions, may align more readily with the overall assurance goal of issuing fairly stated financial statements when those preparing the financial statements have incentives to misreport.²⁰ Further, auditors appear to be sensitive to DT traits in their clients as indicators of heightened risk.

Assurance decision studies that examine auditors' risk assessments consider how DT traits in auditors and in their clients affect these decisions directly and indirectly through auditors' professional skepticism. Confidence seems to underlie a positive relationship between DT traits and professional skepticism, as both the DT and professional skepticism involve the willingness to question evidence or conclusions and to challenge an opposing party's view ([Jonason and Webster 2012](#); [Hurt 2010](#)). Consistent with this observation, auditor narcissism is associated with higher trait professional skepticism, although Machiavellianism and psychopathy are associated with lower trait professional skepticism ([Janssen et al. 2021](#)). The impulsivity characteristic of all DT traits may explain the negative associations of the latter two traits with professional skepticism (e.g., [Jonason and Tost 2010](#)), because impulsivity is not conducive to the careful deliberation that characterizes professional skepticism ([Nolder and Kadous 2018](#)). Some characteristic unique to or more strongly linked to narcissism (such as confidence, [Campbell et al. 2004](#)) seems to overwhelm this impulsiveness to result in a positive association. Higher DT-trait auditors may also be more sensitive to fraud cues and respond with higher risk assessments because they project their own DT-trait dispositions onto their clients ([Thompson and Stefaniak 2019](#)). However, more narcissistic auditors tend to underestimate client risk ([Johnson, Lowe, and Reckers 2021](#)), inconsistent with the idea that DT traits are conducive to professional skepticism or adaptive for auditors' risk assessment decisions.

Auditors view DT traits in client personnel as a red flag that leads to higher risk assessments, which the operating and reporting studies suggest is warranted. Auditors perceive greater fraud risk when client managers exhibit narcissistic characteristics ([Johnson, Kuhn, Apostolou, and Hassell 2013](#)). Auditors' reactions to client DT traits may also impact audit fees and effort based on perceptions of management risk-taking and propensity for aggressive reporting ([Dikolli, Keusch, Mayew, and Steffen 2020](#)).

Assurance studies that examine decisions about responding to risk consider DT traits in auditors and narcissism in clients, and they find that these traits are associated with outcomes suggestive of more effective responses to risk such as reduced misreporting and increased auditor effort. Regarding auditor DT traits, both the grandiosity that characterizes narcissism and the distrust that characterizes all DT traits seem to contribute to effective risk responses. Audit partner narcissism is positively associated with proxies for audit quality such as discretionary accruals and restatements ([Chou, Pittman, and Zhuang 2021](#)). Higher versus lower DT-trait auditors are less susceptible to the biasing effect of a strong client relationship on their trust in management, audit effort, and judgments about a client's valuation—perhaps due to impaired emotional processing that prevents affect-based trust from developing from repeated social interactions ([Hobson et al. 2020](#)). Regarding client DT traits, companies with more narcissistic CEOs pay higher audit fees and have

²⁰ Despite this potential for ready alignment, DT trait levels in auditors and accountants appear to be lower than in the general population ([Wakefield 2008](#); [Janssen et al. 2021](#)). In fact, [Shome and Rao \(2009\)](#) explore whether Canadian auditors' level of Machiavellianism increases with rank and find no evidence that it does; in fact, the study finds audit seniors have marginally higher levels of Machiavellianism than audit partners.

more internal control weaknesses, suggesting auditors increase their effort in response to the greater inherent and control risk signaled by a CEO's narcissism (Judd, Olsen, and Stekelberg 2017).

Assurance studies that examine negotiation decisions suggest that Machiavellianism and narcissism influence auditors' willingness to challenge, stand up to, or otherwise engage in confrontations with clients. In an abstract negotiation setting with student participants, "auditors" higher in Machiavellianism are more likely to challenge "managers" when depleted (Bhaskar et al. 2023). This result is consistent with depletion impairing impulse control, allowing the DT trait to influence auditors' behavior more strongly. Audit partner narcissism is negatively related to discretionary accruals, suggesting that more narcissistic partners are less willing to give in to their clients' threats to change auditors in the event of unfavorable audit outcomes (Takada, Lau, Casterella, and Wong 2021). Unwillingness to give in to client threats is consistent with partners' narcissistic desire to appear socially superior, although this association attenuates when audit teams have more than two partners. Converging archival and experimental evidence suggests that more narcissistic auditors negotiate more effectively with their clients, based on audit report lag and discretionary accruals, as well as time spent negotiating and concessions offered by experimental participants (Church et al. 2020). Overall, the negotiation decisions of higher-DT auditors seem to benefit from the more confrontational approaches to interpersonal interaction characteristic of both Machiavellianism and narcissism, and from the desire for social dominance characteristic of narcissism.

Summary and Opportunities for Future Research: Assurance Decisions

In sum, the research examining assurance decisions suggests DT traits are associated with decisions reflective of confident and confrontational approaches to interpersonal interaction, which may support audit quality. For example, higher-DT trait auditors may be useful when management is particularly demanding or persuasive, or when there are expectations of potential management deception. However, given the paucity of research on the overall effects of DT traits on auditor behavior and the mixed experimental findings we caution against strong inferences that DT traits in auditors are beneficial.

Our literature synthesis suggests several opportunities for DT trait research on assurance decisions. Many assurance decisions and outcomes related to risk response do not appear in the DT studies we synthesized, including fraud detection, evidence collection and evaluation, and going concern assessments; the effects of DT traits on these outcomes cannot be assumed to be the same. For example, auditor decisions that involve assessing management's motives and integrity (e.g., fraud, going concern) are likely more heavily influenced by both client DT traits (as a risk indicator) and auditor DT traits (through distrust and willingness to challenge) than other decisions (e.g., evaluating objective evidence). Researchers may also identify other determinants that amplify or dampen the effects of each trait (e.g., number of audit team members as in Takada et al. 2021). For example, client relationships may differ based on auditor DT traits, as auditors higher in Machiavellianism may focus more strategically on client service than those higher in narcissism, who may focus more on winning in a disagreement with a client.

Future research can also build on our inference that trust can mediate or moderate the influence of DT traits on assurance decisions. Future research could explore interventions designed to mitigate the increase in trust that comes with repeated auditor-client interactions, or to help auditors distinguish their feelings about the need to challenge management assumptions from their feelings of trust in the client. Researchers may also consider whether auditors are aware of their sensitivity to client DT traits and how auditors identify such traits. These practices could be informal, such as repeated interaction, exposure to aggressive client practices, and observation of client workplace climate, or formal, such as management questionnaires used to assess fraud risk and client acceptance and continuance procedures.

One challenge in this research will be the low likelihood that firms would or could consider auditors' DT trait levels in staffing decisions. Thus, it may be more useful to identify behaviors exhibited by auditors with high levels of DT traits that could be adopted or avoided by other auditors to achieve desired assurance outcomes.

Opportunities for Future Research on Other Traits: Applying the Framework

We used the nonaccounting studies we identified and reviewed to inform our understanding of DT traits and the overlap among their behavioral characteristics, and we used our framework to synthesize the accounting DT trait literature. This approach allowed us to identify many opportunities for future research with practical implications and theoretical relevance for decision makers with or without high levels of DT traits. We encourage a similar process using our framework (Figure 1) to synthesize research examining other traits relevant to accounting decisions. For example, a researcher interested in the effects of need for closure in accounting contexts could review the nonaccounting studies on need for closure to identify both the types of decisions and the contextual determinants that are relevant to the trait, and winnow these based on what the accounting literature has and has not done. Through iteration, the researcher can

develop a synthesis (Figure 2) that reflects insights from the need for closure and accounting literatures. We believe this approach can identify opportunities for future research that contribute to our understanding of more than just the trait itself and can be used to generate interesting insights about how decision types and contextual determinants affect our understanding of trait-driven behavior.

V. CONCLUSION

In recent years, academics have devoted new attention to the role of DT and other personality traits in business decision-making as well as within accounting settings. Despite the increased interest in DT traits, the breadth of the literature and variation in whether studies examine component or composite DT constructs can make it difficult for scholars undertaking research in this area. This paper seeks to address these issues and to encourage greater auditing scholarship related to DT traits, and to provide a framework for accounting and auditing researchers interested in exploring these and other personality traits.

We designed our conceptual framework to explain the ways in which traits can ultimately impact audited financial statements (Figure 1) and as a tool to organize and synthesize the DT trait literature in a manner relevant to accounting and auditing researchers. This framework reflects the idea that, because operating, reporting, and assurance decisions have sequential and recursive effects on the audited financial statements, so do DT traits (or any other traits). Further, the framework reflects the idea that traits affect decisions in interaction with other contextual determinants of decisions. Applying our framework suggests the effects of DT traits seem to contribute to *operating* decisions that harm company and individual performance, *reporting* decisions that protect or enhance individual performance to the detriment of company performance, and *assurance* decisions that *might* enhance the quality of information provided to the market.

In conclusion, there is great interest in studies that examine the impacts of DT and other personality traits on organizational judgments and outcomes. We believe that our framework can be a useful model for organizing the existing accounting literature and for developing theoretical predictions of interest and relevance to accounting and audit researchers going forward. Indeed, we believe that accounting research can play a key role in providing “real world” tests of trait effects that have been found in the broader psychology literature.

REFERENCES

- Abdel-Meguid, A., J. N. Jennings, K. J. Olsen, and M. T. Soliman. 2021. The impact of the CEO's personal narcissism on non-GAAP earnings. *The Accounting Review* 96 (3): 1–25. <https://doi.org/10.2308/TAR-2017-0612>
- Aktas, N., E. de Bodt, H. Bollaert, and R. Roll. 2016. CEO narcissism and the takeover process: From private initiation to deal completion. *Journal of Financial and Quantitative Analysis* 51 (1): 113–137. <https://doi.org/10.1017/S0022109016000065>
- Amernic, J. H., and R. J. Craig. 2010. Accounting as a facilitator of extreme narcissism. *Journal of Business Ethics* 96 (1): 79–93. <https://doi.org/10.1007/s10551-010-0450-0>
- Ames, D. R., P. Rose, and C. P. Anderson. 2006. The NPI-16 as a short measure of narcissism. *Journal of Research in Personality* 40 (4): 440–450. <https://doi.org/10.1016/j.jrp.2005.03.002>
- Babiak, P., C. S. Neumann, and R. D. Hare. 2010. Corporate psychopathy: Talking the walk. *Behavioral Sciences & the Law* 28 (2): 174–193. <https://doi.org/10.1002/bsl.925>
- Bailey, C. D. 2015. Psychopathy, academic accountants' attitudes toward unethical research practices, and publication success. *The Accounting Review* 90 (4): 1307–1332. <https://doi.org/10.2308/accr-50970>
- Bailey, C. D. 2017. Psychopathy and accounting students' attitudes towards unethical professional practices. *Journal of Accounting Education* 41 (1): 15–32. <https://doi.org/10.1016/j.jaccedu.2017.09.004>
- Baumeister, R. F. 2002. Ego depletion and self-control failure: An energy model of the self's executive function. *Self and Identity* 1 (2): 129–136. <https://doi.org/10.1080/152988602317319302>
- Beck, M. 2008. Verbal assaults—How to defend yourself. *CNN.com* (November 19). <https://www.cnn.com/2008/LIVING/personal/11/18/o.handle.verbal.ambushes/index.html>
- Bentley, J. W. 2019. Decreasing operational distortion and surrogation through narrative reporting. *The Accounting Review* 94 (3): 27–55. <https://doi.org/10.2308/accr-52277>
- Bentley, J. W., M. J. Bloomfield, R. J. Bloomfield, and T. A. Lambert. 2023. Drivers of public opinion on the acceptability of distorting performance measures. (November). (Working paper). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2823705
- Bhaskar, L., T. Majors, and A. Vitalis. 2023. How does depletion interact with auditors' skeptical dispositions to affect auditors' challenging of managers in negotiations. *Contemporary Accounting Research* 40 (4): 2288–2313. <https://doi.org/10.1111/1911-3846.12891>
- Bloomfield, R. J. 2018. What counts and what gets counted. (February 20). (Working paper). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2427106

- Bonner, S. E. 2008. *Judgment and Decision Making in Accounting*. New York, NY: Prentice Hall.
- Brown, T., K. M. Rennekamp, N. Seybert, and W. Zhu. 2014. Who stands at the top and bottom of the slippery slope? (September 24). (Working paper). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1810833
- Brown, T. J., T. M. Majors, and T. W. Vance. 2021. Incomplete contracts and employee opportunism: How Machiavellianism moderates the effects of impacting an uncompensated objective. *Journal of Management Accounting Research* 33 (2): 1–18. <https://doi.org/10.2308/JMAR-18-023>
- Buchholz, F., K. Lopatta, and K. Maas. 2020. The deliberate engagement of narcissistic CEOs in earnings management. *Journal of Business Ethics* 167 (4): 663–686. <https://doi.org/10.1007/s10551-019-04176-x>
- Buchholz, F., R. Jaeschke, K. Lopatta, and K. Maas. 2018. The use of optimistic tone by narcissistic CEOs. *Accounting, Auditing & Accountability Journal* 31 (2): 531–562. <https://doi.org/10.1108/AAAJ-11-2015-2292>
- Buyl, T., C. Boone, and J. B. Wade. 2019. CEO narcissism, risk-taking, and resilience: An empirical analysis in U.S. commercial banks. *Journal of Management* 45 (4): 1372–1400. <https://doi.org/10.1177/0149206317699521>
- Campbell, W. K., A. S. Goodie, and J. D. Foster. 2004. Narcissism, confidence, and risk attitude. *Journal of Behavior Decision Making* 17 (4): 297–311. <https://doi.org/10.1002/bdm.475>
- Capalbo, F., A. Frino, M. Y. Lim, V. Mollica, and R. Palumbo. 2018. The impact of CEO narcissism on earnings management. *Abacus* 54 (2): 210–226. <https://doi.org/10.1111/abac.12116>
- Chatterjee, A., and D. C. Hambrick. 2007. It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative Science Quarterly* 52 (3): 351–386. <https://doi.org/10.2189/asqu.52.3.351>
- Chatterjee, A., and D. C. Hambrick. 2011. Executive personality, capability cues, and risk taking: How narcissistic CEOs react to their successes and stumbles. *Administrative Science Quarterly* 56 (2): 202–237. <https://doi.org/10.1177/0001839211427534>
- Chatterjee, A., and T. G. Pollock. 2017. Master of puppets: How narcissistic CEOs construct their professional worlds. *Academy of Management Review* 42 (4): 703–725. <https://doi.org/10.5465/amr.2015.0224>
- Chen, S. 2010. The role of ethical leadership versus institutional constraints: A simulation study of financial misreporting by CEOs. *Journal of Business Ethics* 93 (S1): 33–52. <https://doi.org/10.1007/s10551-010-0625-8>
- Chou, T. K., J. A. Pittman, and Z. Zhuang. 2021. The importance of partner narcissism to audit quality: Evidence from Taiwan. *The Accounting Review* 96 (6): 103–127. <https://doi.org/10.2308/TAR-2018-0420>
- Christie, R., and F. L. Geis. 1970. *Studies in Machiavellianism*. New York, NY: Elsevier.
- Church, B. K., N. T. Dai, X. (J.) Kuang, and X. Liu. 2020. The role of auditor narcissism in auditor-client negotiations: Evidence from China. *Contemporary Accounting Research* 37 (3): 1756–1787. <https://doi.org/10.1111/1911-3846.12565>
- Committee of Sponsoring Organizations of the Treadway Commission (COSO). 2013. Internal control—Integrated framework.
- Corry, N., R. D. Merritt, S. Mrug, and B. Pamp. 2008. The factor structure of the narcissistic personality inventory. *Journal of Personality Assessment* 90 (6): 593–600. <https://doi.org/10.1080/00223890802388590>
- Craig, R., and J. Amernic. 2011. Detecting linguistic traces of destructive narcissism at-a-distance in a CEO's letter to shareholders. *Journal of Business Ethics* 101 (4): 563–575. <https://doi.org/10.1007/s10551-011-0738-8>
- Crysel, L. C., B. S. Crosier, and G. D. Webster. 2013. The dark triad and risk behavior. *Personality and Individual Differences* 54 (1): 35–40. <https://doi.org/10.1016/j.paid.2012.07.029>
- Davis, P. L., A. M. Donnelly, and R. R. Radtke. 2023. The impact of dark personality traits and gender on whistleblowing decisions. *Research on Professional Responsibilities and Ethics in Accounting* 25: 77–102. <https://doi.org/10.1108/S1574-076520230000025004>
- Degges-White. 2022. 7 signs of antisocial personality disorder. *Psychology Today* (June 17). <https://www.psychologytoday.com/us/blog/lifetime-connections/202206/7-signs-of-antisocial-personality-disorder>
- Dikolli, S. S., T. Keusch, W. J. Mayew, and T. D. Steffen. 2020. CEO behavioral integrity, auditor responses, and firm outcomes. *The Accounting Review* 95 (2): 61–88. <https://doi.org/10.2308/accr-52554>
- D'Souza, M. F., and G. A. S. F. de Lima. 2015. The dark side of power: The dark triad in opportunistic decision-making. *Advances in Scientific and Applied Accounting* 8 (2): 135–156. <https://doi.org/10.14392/asaa.2015080201>
- Epstein, B. J., and S. Ramamoorti. 2016. Today's fraud risk model lacks personality. *The CPA Journal* 86 (3): 14–18, 20–21. <https://www.proquest.com/docview/1777198718?sourcetype=Scholarly%20Journals>
- Furnham, A., S. C. Richards, and D. L. Paulhus. 2013. The dark triad of personality: A 10 year review. *Social and Personality Psychology Compass* 7 (3): 199–216. <https://doi.org/10.1111/spc3.12018>
- Furtner, M. R., J. F. Rauthmann, and P. Sachse. 2011. The self-loving self-leader: An examination of the relationship between self-leadership and the dark triad. *Social Behavior and Personality: An International Journal* 39 (3): 369–379. <https://doi.org/10.2224/sbp.2011.39.3.369>
- Ghosh, D., and T. K. Crain. 1996. Experimental investigation of ethical standards and perceived probability of audit on intentional noncompliance. *Behavioral Research in Accounting* 8 (1): 219–244.
- Griffith, E. E., J. S. Hammersley, and K. Kadous. 2015. Audits of complex estimates as verification of management numbers: How institutional pressures shape practice. *Contemporary Accounting Research* 32 (3): 833–863. <https://doi.org/10.1111/1911-3846.12104>

- Griffith, E. E., K. Kadous, and D. Young. 2016. How insights from the “new” JDM research can improve auditor judgment: Fundamental research questions and methodological advice. *Auditing: A Journal of Practice & Theory* 35 (2): 1–22. <https://doi.org/10.2308/ajpt-51347>
- Griffith, E. E., K. Kadous, and D. Young. 2021. Improving complex audit judgments: A framework and evidence. *Contemporary Accounting Research* 38 (3): 2071–2104. <https://doi.org/10.1111/1911-3846.12658>
- Hales, J., J. L. Hobson, and R. J. Resutek. 2016. Beyond a one-size-fits-all mentality: An experimental investigation of how narcissistic employees respond to relative performance information. (October 4). (Working paper). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2021889
- Ham, C., N. Seybert, and S. Wang. 2018. Narcissism is a bad sign: CEO signature size, investment, and performance. *Review of Accounting Studies* 23 (1): 234–264. <https://doi.org/10.1007/s11142-017-9427-x>
- Ham, C., M. Lang, N. Seybert, and S. Wang. 2017. CFO narcissism and financial reporting quality. *Journal of Accounting Research* 55 (5): 1089–1135. <https://doi.org/10.1111/1475-679X.12176>
- Hare, R. D. 1985. Comparison of procedures for the assessment of psychopathy. *Journal of Consulting and Clinical Psychology* 53 (1): 7–16. <https://doi.org/10.1037/0022-006X.53.1.7>
- Harris, L. L., S. B. Jackson, J. Owens, and N. Seybert. 2022. Recruiting dark personalities for earnings management. *Journal of Business Ethics* 178: 193–218. <https://doi.org/10.1007/s10551-021-04761-z>
- Harrison, A., J. Summers, and B. Mennecke. 2018. The effects of the dark triad on unethical behavior. *Journal of Business Ethics* 153 (1): 53–77. <https://doi.org/10.1007/s10551-016-3368-3>
- Hartmann, F. G. H., and V. S. Maas. 2010. Why business unit controllers create budget slack: Involvement in management, social pressure, and Machiavellianism. *Behavioral Research in Accounting* 22 (2): 27–49. <https://doi.org/10.2308/bria.2010.22.2.27>
- Hayes, M. J., and P. M. J. Reckers. 2020. The role of narcissistic hypocrisy in the development of accounting estimates. *Contemporary Accounting Research* 37 (2): 1199–1216. <https://doi.org/10.1111/1911-3846.12552>
- Hayes, M. J., and P. M. J. Reckers. 2022. The relative effects of grandiose and vulnerable narcissism on external forecasting behavior. *Behavioral Research in Accounting* 34 (2): 69–82. <https://doi.org/10.2308/BRIA-2022-011>
- Hobson, J. L., M. T. Stern, and A. F. Zimbelman. 2020. The benefit of mean auditors: The influence of social interaction and the dark triad on unjustified auditor trust. *Contemporary Accounting Research* 37 (2): 1217–1247. <https://doi.org/10.1111/1911-3846.12511>
- Hurley, P. J. 2023. Making sense of ego depletion: The replication crisis, a path forward, and lessons for accounting researchers. *Auditing: A Journal of Practice & Theory* 42 (2): 163–181. <https://doi.org/10.2308/AJPT-2021-028>
- Hurt, R. K. 2010. Development of a scale to measure professional skepticism. *Auditing: A Journal of Practice & Theory* 29 (1): 149–171. <https://doi.org/10.2308/aud.2010.29.1.149>
- Ingersoll, A. R., C. Glass, A. Cook, and K. J. Olsen. 2019. Power, status, and expectations: How narcissism manifests among women CEOs. *Journal of Business Ethics* 158 (4): 893–907. <https://doi.org/10.1007/s10551-017-3730-0>
- Jakobowitz, S., and V. Egan. 2006. The dark triad and normal personality traits. *Personality and Individual Differences* 40 (2): 331–339. <https://doi.org/10.1016/j.paid.2005.07.006>
- Janssen, S., K. Hardies, A. Vanstraelen, and K. Zehms. 2021. Auditors’ professional skepticism: Traits, behavioral intentions, and actions. (February 22) (Working paper). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3717615
- Jensen, M. C., and W. H. Meckling. 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3 (4): 305–360.
- Johnson, E. N., D. J. Lowe, and P. M. J. Reckers. 2021. The influence of auditor narcissism and moral disengagement on risk assessments of a narcissistic client CFO. *Journal of Accounting and Public Policy* 40 (4): 106826. <https://doi.org/10.1016/j.jaccpubpol.2021.106826>
- Johnson, E. N., J. R. Kuhn, Jr., B. A. Apostolou, and J. M. Hassell. 2013. Auditor perceptions of client narcissism as a fraud attitude risk factor. *Auditing: A Journal of Practice & Theory* 32 (1): 203–219. <https://doi.org/10.2308/ajpt-50329>
- Jonason, P. K., and S. A. Fletcher. 2018. Agentic and communal behavioral biases in the dark triad traits. *Personality and Individual Differences* 130 (1): 76–82. <https://doi.org/10.1016/j.paid.2018.03.044>
- Jonason, P. K., and J. Tost. 2010. I cannot control myself: The dark triad and self-control. *Personality and Individual Differences* 49 (6): 611–615. <https://doi.org/10.1016/j.paid.2010.05.031>
- Jonason, P. K., and G. D. Webster. 2010. The dirty dozen: A concise measure of the dark triad. *Psychological Assessment* 22 (2): 420–432. <https://doi.org/10.1037/a0019265>
- Jonason, P. K., and G. D. Webster. 2012. A protean approach to social influence: Dark triad personalities and social influence tactics. *Personality and Individual Differences* 52 (4): 521–526. <https://doi.org/10.1016/j.paid.2011.11.023>
- Jonason, P. K., S. Wee, N. P. Li, and C. Jackson. 2014. Occupational niches and the dark triad traits. *Personality and Individual Differences* 69 (1): 119–123. <https://doi.org/10.1016/j.paid.2014.05.024>
- Jonason, P. K., R. Abboud, J. Tomé, M. Dummet, and A. Hazer. 2017. The dark triad traits and individual differences in self-reported and other-rated creativity. *Personality and Individual Differences* 117 (1): 150–154. <https://doi.org/10.1016/j.paid.2017.06.005>
- Jones, D. N., and D. L. Paulhus. 2009. Machiavellianism. In *Handbook of Individual Differences in Social Behavior*, edited by M. R. Leary and R. H. Hoyle, 93–108. New York, NY: The Guilford Press.

- Jones, D. N., and D. L. Paulhus. 2011. The role of impulsivity in the dark triad of personality. *Personality and Individual Differences* 51 (5): 679–682. <https://doi.org/10.1016/j.paid.2011.04.011>
- Jones, D. N., and D. L. Paulhus. 2014. Introducing the short dark triad (SD3): A brief measure of dark personality traits. *Assessment* 21 (1): 28–41. <https://doi.org/10.1177/1073191113514105>
- Jones, D. N., and D. L. Paulhus. 2017. Duplicity among the dark triad: Three faces of deceit. *Journal of Personality and Social Psychology* 113 (2): 329–342. <https://doi.org/10.1037/pspp0000139>
- Judd, J. S., K. J. Olsen, and J. Stekelberg. 2017. How do auditors respond to CEO narcissism? Evidence from external audit fees. *Accounting Horizons* 31 (4): 33–52. <https://doi.org/10.2308/acch-51810>
- Knechel, W. R., E. Thomas, and M. Driskill. 2020. Understanding financial auditing from a service perspective. *Accounting, Organizations and Society* 81 (1): 101080. <https://doi.org/10.1016/j.aos.2019.101080>
- Koch-Bayram, I. F., and T. Biemann. 2020. Signs of narcissism? Reconsidering a widely used measure. *Journal of Leadership & Organizational Studies* 27 (4): 389–405. <https://doi.org/10.1177/1548051820950379>
- Kontesa, M., R. Brahmana, and A. H. H. Tong. 2021. Narcissistic CEOs and their earnings management. *Journal of Management and Governance* 25 (1): 223–249. <https://doi.org/10.1007/s10997-020-09506-0>
- LeBreton, J. M., L. K. Shiverdecker, and E. M. Grimaldi. 2018. The dark triad and workplace behavior. *Annual Review of Organizational Psychology and Organizational Behavior* 5 (1): 387–414. <https://doi.org/10.1146/annurev-orgpsych-032117-104451>
- Lee, C., R. B. Welker, and T. Wang. 2013. An experimental investigation of professional skepticism in audit interviews. *International Journal of Auditing* 17 (2): 213–226. <https://doi.org/10.1111/ijau.12001>
- Levenson, M. R., K. A. Kiehl, and C. M. Fitzpatrick. 1995. Assessing psychopathic attributes in a noninstitutionalized population. *Journal of Personality and Social Psychology* 68 (1): 151–158. <https://doi.org/10.1037/0022-3514.68.1.151>
- Libby, T., and W. Olczak. 2023. Narcissism in the workforce: How employees respond to contract frame. *Accounting, Organizations, and Society* 106: 101415. <https://doi.org/10.1016/j.aos.2022.101415>
- Lowe-Calverley, E., and R. Grieve. 2017. Web of deceit: Relationships between the dark triad, perceived ability to deceive and cyberloafing. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace* 11 (2): 1–12. <https://doi.org/10.5817/CP2017-2-5>
- Lyons, M., A. Croft, S. Fairhurst, K. Varley, and C. Wilson. 2017. Seeing through crocodile tears? Sex-specific associations between the dark triad traits and lie detection accuracy. *Personality and Individual Differences* 113 (1): 1–4. <https://doi.org/10.1016/j.paid.2017.03.008>
- Machiavelli, N. 2018. *The Prince*, translated by W. K. Marriott, Kindle edition. Library of Alexandria.
- MacKenzie, N. L., and C. P. Agoglia. 2024. The power of small talk: How small talk and managers' psychological ownership influence managers' defensiveness during audit inquiry. (April 19). (Working paper). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4800083
- Majors, T. M. 2016. The interaction of communicating measurement uncertainty and the dark triad on managers' reporting decisions. *The Accounting Review* 91 (3): 973–992. <https://doi.org/10.2308/acrr-51276>
- Malsch, B., and Y. Gendron. 2013. Re-theorizing change: Institutional experimentation and the struggle for domination in the field of public accounting. *Journal of Management Studies* 50 (5): 870–899. <https://doi.org/10.1111/joms.12006>
- Maples, J. L., J. Lamkin, and J. D. Miller. 2014. A test of two brief measures of the dark triad: The dirty dozen and the short dark triad. *Psychological Assessment* 26 (1): 326–331. <https://doi.org/10.1037/a0035084>
- Marquez-Illescas, G., and L. Zhou. 2023. CEO narcissism and properties of analysts' forecasts. *Accounting Horizons* 37 (3): 221–241. <https://doi.org/10.2308/HORIZONS-2021-010>
- Marquez-Illescas, G., A. A. Zebedee, and L. Zhou. 2019. Hear me write: Does CEO narcissism affect disclosure? *Journal of Business Ethics* 159 (2): 401–417. <https://doi.org/10.1007/s10551-018-3796-3>
- Mind Tools Content Team (MTCT). 2023. Understanding the dark triad. <https://www.mindtools.com/au5148p/understanding-the-dark-triad>
- Muris, P., H. Merckelbach, H. Otgaar, and E. Meijer. 2017. The malevolent side of human nature: A meta-analysis and critical review of the literature on the dark triad (narcissism, Machiavellianism, and psychopathy). *Perspectives on Psychological Science* 12 (2): 183–204. <https://doi.org/10.1177/1745691616666070>
- Murphy, P. R. 2012. Attitude, Machiavellianism, and the rationalization of misreporting. *Accounting, Organizations & Society* 37 (4): 242–259. <https://doi.org/10.1016/j.aos.2012.04.002>
- Mutschmann, M., T. Hasso, and M. Pelster. 2022. Dark triad managerial personality and financial reporting manipulation. *Journal of Business Ethics* 181: 763–788. <https://doi.org/10.1007/s10551-021-04959-1>
- Nolder, C. J., and K. Kadous. 2018. Grounding the professional skepticism construct in mindset and attitude theory: A way forward. *Accounting, Organizations and Society* 67: 1–14. <https://doi.org/10.1016/j.aos.2018.03.010>
- Olsen, K. J., and J. Stekelberg. 2016. CEO narcissism and corporate tax sheltering. *Journal of the American Taxation Association* 38 (1): 1–22. <https://doi.org/10.2308/atax-51251>
- Olsen, K. J., K. K. Dworkis, and S. M. Young. 2014. CEO narcissism and accounting: A picture of profits. *Journal of Management Accounting Research* 26 (2): 243–267. <https://doi.org/10.2308/jmar-50638>

- O'Reilly, C. A., III, B. Doerr, and J. A. Chatman. 2018. "See you in court": How CEO narcissism increases firms' vulnerability to lawsuits. *The Leadership Quarterly* 29 (3): 365–378. <https://doi.org/10.1016/j.leaqua.2017.08.001>
- O'Reilly, C. A., III, B. Doerr, D. F. Caldwell, and J. A. Chatman. 2014. Narcissistic CEOs and executive compensation. *The Leadership Quarterly* 25 (2): 218–231. <https://doi.org/10.1016/j.leaqua.2013.08.002>
- Patel, P. C., and D. Cooper. 2014. The harder they fall, the faster they rise: Approach and avoidance focus in narcissistic CEOs. *Strategic Management Journal* 35 (10): 1528–1540. <https://doi.org/10.1002/smj.2162>
- Paulhus, D. L., and K. M. Williams. 2002. The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality* 36 (6): 556–563. [https://doi.org/10.1016/S0092-6566\(02\)00505-6](https://doi.org/10.1016/S0092-6566(02)00505-6)
- Paulhus, D. L., C. S. Neumann, and R. D. Hare. 2014. *Manual for the Self-Report Psychopathy Scale*, 4th edition. Toronto, Canada: Multi-Healthy Systems.
- Petrenko, O. V., F. Aime, J. Ridge, and A. Hill. 2016. Corporate social responsibility or CEO narcissism? CSR motivations and organizational performance. *Strategic Management Journal* 37 (2): 262–279. <https://doi.org/10.1002/smj.2348>
- Rapp-Ricciardi, M., J. Widh, B. Barbieri, C. Amato, and T. Archer. 2018. Dark triad, locus of control, and affective status among individuals with an entrepreneurial intent. *Journal of Entrepreneurship Education* 21 (1): 1–18. <https://www.abacademies.org/articles/dark-triad-locus-of-control-and-affective-status-among-individuals-with-an-entrepreneurial-intent-6960.html>
- Raskin, R., and H. Terry. 1988. A principal-components analysis of the narcissistic personality inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology* 54 (5): 890–902. <https://doi.org/10.1037/0022-3514.54.5.890>
- Rijsenbilt, A., and H. Commandeur. 2013. Narcissus enters the courtroom: CEO narcissism and fraud. *Journal of Business Ethics* 117 (2): 413–429. <https://doi.org/10.1007/s10551-012-1528-7>
- Rogoza, R., and R. Fatfouta. 2020. Decoding the narcissism-charisma link: A facet approach. *Personality and Individual Differences* 156: 109774. <https://doi.org/10.1016/j.paid.2019.109774>
- Saiewitz, A., and T. Kida. 2018. The effects of an auditor's communication mode and professional tone on client responses to audit inquiries. *Accounting, Organizations and Society* 65: 33–43. <https://doi.org/10.1016/j.aos.2017.10.002>
- Schneider, A., and J. Kugel. 2023. A synthesis of behavioral accounting studies that examine personality traits. *Advances in Accounting Behavioral Research* 26: 325–348. <https://doi.org/10.1108/S1475-148820230000026012>
- Shafer, W. E., and Z. Wang. 2011. Effects of ethical context and Machiavellianism on attitudes toward earnings management in China. *Managerial Auditing Journal* 26 (5): 372–392. <https://doi.org/10.1108/02686901111129553>
- Shang, R., Z.(A.) Wang, and Y. Zu. 2023. Manager narcissism, target difficulty, and employee dysfunctional behavior. *Contemporary Accounting Research* 40 (3): 1795–1822. <https://doi.org/10.1111/1911-3846.12864>
- Shome, A., and H. Rao. 2009. Machiavellianism in public accountants: Some additional Canadian evidence. *Business Ethics: A European Review* 18 (4): 364–371. <https://doi.org/10.1111/j.1467-8608.2009.01569.x>
- Smith, S. F., and S. O. Lilienfeld. 2013. Psychopathy in the workplace: The knowns and unknowns. *Aggression and Violent Behavior* 18 (2): 204–218. <https://doi.org/10.1016/j.avb.2012.11.007>
- Takada, T., D. Lau, J. R. Casterella, and N. Wong. 2021. There is no 'I' in team: An analysis of audit partner narcissism from the team aspect. *International Journal of Auditing* 25 (3): 751–768. <https://doi.org/10.1111/ijau.12247>
- Thompson, K., and C. M. Stefaniak. 2019. Projection or reflection? The effect of social projection, dark triad, and moral identity on auditor risk assessments and ethical action-taking. (September 5). (Working paper). https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=3391744
- Triki, A., G. L. Cook, and D. Bay. 2017. Machiavellianism, moral orientation, social desirability response bias, and anti-intellectualism: A profile of Canadian accountants. *Journal of Business Ethics* 144 (2): 623–635. <https://doi.org/10.1007/s10551-015-2826-7>
- Van Scotter, J. R. 2020. Narcissism in CEO research: A review and replication of the archival approach. *Management Review Quarterly* 70 (4): 629–674. <https://doi.org/10.1007/s11301-019-00178-1>
- Van Scotter, J. R., and K. D. D. Roglio. 2020. CEO bright and dark personality: Effects on ethical misconduct. *Journal of Business Ethics* 164 (3): 451–475. <https://doi.org/10.1007/s10551-018-4061-5>
- Vedel, A., and D. K. Thomsen. 2017. The dark triad across academic majors. *Personality and Individual Differences* 116 (1): 86–91. <https://doi.org/10.1016/j.paid.2017.04.030>
- Wakefield, R. L. 2008. Accounting and Machiavellianism. *Behavioral Research in Accounting* 20 (1): 115–129. <https://doi.org/10.2308/bria.2008.20.1.115>
- Wang, L. W. 2017. Recognizing the best: The productive and counterproductive effects of relative performance recognition. *Contemporary Accounting Research* 34 (2): 966–990. <https://doi.org/10.1111/1911-3846.12292>
- Welsh, C. A., L. M. Ferguson, L. McKeown, T. M. Gerlach, M. Doumas, T. E. Truhan, and K. A. Papageorgiou. 2024. Assessing dark tetrad traits: A COSMIN systematic review of measurement instruments available. *Personality and Individual Differences* 217: 112431. <https://doi.org/10.1016/j.paid.2023.112431>
- Wibbeke, L. M., and M. Lachmann. 2020. Psychology in management accounting and control research: An overview of the recent literature. *Journal of Management Control* 31 (3): 275–328. <https://doi.org/10.1007/s00187-020-00302-3>

- Young, S. M., F. Du, K. K. Dworkis, and K. J. Olsen. 2016. It's all about all of us: The rise of narcissism and its implications for management control system research. *Journal of Management Accounting Research* 28 (1): 39–55. <https://doi.org/10.2308/jmar-51024>
- Zhu, D. H., and G. Chen. 2015. CEO narcissism and the impact of prior board experience on corporate strategy. *Administrative Science Quarterly* 60 (1): 31–65. <https://doi.org/10.1177/0001839214554989>

APPENDIX A

Measurement Considerations

Given variation in how each DT trait manifests in personality and behavior, researchers must carefully consider when and how to measure DT traits as a unitary construct versus three distinct traits. If the theoretical construct of interest in a study is “social malevolence” or general disagreeableness, regardless of *why* a person is disagreeable, treating the DT as a unitary construct makes sense. For example, people may be perceived as disagreeable because they incessantly talk about themselves (narcissist), they are manipulative (Machiavellian), or they engage unthinkingly in behaviors that harm others (psychopath). However, if the theoretical construct is oriented to a particular set of behaviors, separating the component DT traits makes sense. For example, when considering decisions with shorter and longer time horizons, Machiavellian decisions, which are very strategic and often serve a self-interested “grand plan,” will be quite different from psychopathic decisions, which only contemplate the here and now.

Researchers often measure DT traits as a unitary construct using a combination of complete or partial component-trait scales (Lowe-Calverley and Grieve 2017; Koch-Bayram and Biemann 2020; Furtner, Rauthmann, and Sachse 2011). More recently, researchers in psychology and accounting tend to use one of two concise scales: the Short DT (SD3, Jones and Paulhus 2014) or the Dirty Dozen (DD, Jonason and Webster 2010), with the SD3 used most often in accounting. Some studies measure composite DT by averaging the measures of each trait as captured by the SD3 (e.g., Majors 2016). Others use the first factor from a principal component factor analysis to measure the shared common core (e.g., Hobson et al. 2020; Thompson and Stefaniak 2019). Although the DD and SD3 are more efficient scales, the tradeoff is validity and measurement concerns (see Maples, Lamkin, and Miller 2014 for discussion).

Validated scales are often used to measure component DT traits. The most commonly used scales are the Narcissistic Personality Inventory (NPI, NPI-40, and NPI-16) for narcissism (Raskin and Terry 1988; Ames, Rose, and Anderson 2006), the Mach IV scale for Machiavellianism (Christie and Geis 1970), and the Self-Report Psychopathy Scale (SRP-III) or the Levenson Self-Report Psychopathy Scale (LSRP) for psychopathy (Paulhus, Neumann, and Hare 2014; Levenson, Kiehl, and Fitzpatrick 1995). Despite being commonly used, these may not be appropriate scales to use. Welsh et al. (2024) conduct a systematic review of DT measurement scales and recommend that the NPI, Mach IV, SRP-III, and the LSRP should not be used. Reasons include low internal consistency (NPI-16), scales having been revised (SRP-III and LSRP), and overlap across scales (Mach IV and SRP-III). Although they note that both the SD3 and the DD also suffer from such problematic overlap, they suggest that these measures may be used when reducing time is a priority.

Archival accounting researchers have developed publicly observable proxy measures for narcissism. Chatterjee and Hambrick (2007) developed a five-item CEO narcissism index measure (Narcissism Index) that includes: prominence of photograph in annual report, prominence in press releases, use of first-person pronouns in interviews, and ratios of cash and bonus compensation to the second-highest paid company executive. Others adapted this measure resulting in three- and four-item measures (e.g., Olsen et al. 2014; Chatterjee and Hambrick 2011). Others measure CEO narcissism based on signature size (Ham et al. 2017) or by estimating the proportion of first-person singular (I, me, my, mine, myself) to total first-person pronouns (I, me, my, mine, myself, we, us, our, ours, ourselves) in CEO speeches (Aktas et al. 2016). Although critics question the reliability of the Narcissism Index and note low-to-moderate correlations with clinically validated measures such as the NPI (Van Scotter 2020; Koch-Bayram and Biemann 2020), out-of-sample techniques can help to validate DT-trait proxies and to rule out alternative explanations for results (see, e.g., Babiak et al. 2010; Zhu and Chen 2015; Ham et al. 2017, 2018; Van Scotter and Roglio 2020).