

Shielding the Workforce: Does Subordinate Contract Frame Induce Leniency in Superiors' Decisions?

Abstract

Organizations use penalty contracts to deter negative behavior, but these contracts are rarely used for subordinate performance, even though they can provide a positive motivating effect. Prior studies focus on subordinates' reactions to contract frame to address this paucity of penalty contracts. We examine how subordinates' contract frame affects *superiors'* behavior, specifically their target-setting decisions, and whether a penalty contract increases superiors' leniency, which could provide a potential explanation for the lack of performance penalty contracts in practice. Using an experiment, we predict and find that superiors' set more lenient targets for subordinates under a penalty contract compared to a bonus contract, as superiors can project their negative perceptions of penalties onto subordinates and seek to mitigate these perceptions. This finding provides insight into the limited use of penalty contracts in practice, despite the positive effect that penalty contracts have on effort. Further, we find that increasing the salience of subordinates' contract choice to the superior mitigates leniency under a penalty contract, which could increase the appeal of penalty contracts in practice. We also find that these effects are present only in low Dark Triad superiors, as high Dark Triad superiors set similar targets regardless of subordinates' contract frame and choice.

I. INTRODUCTION

Organizations utilize penalty contracts to deter specific and observable negative behaviors. For example, Dell and Scott's Miracle-Gro impose employee penalties for unhealthy behavior, Target penalizes suppliers for late deliveries and inaccurate product information, and other firms penalize employees for tardiness (Pearson and Lieber 2009; Al Shaiba 2015; Vitasek 2016). However, penalty contracts are rarely used for subordinates' performance despite research findings that subordinates work harder under penalty contracts, even though they prefer bonus contracts (Luft 1994; Hannan, Hoffman, and Moser 2005; Church, Libby, and Zhang 2008; Hossain and List 2012). The lack of penalty contracts in practice presents a curious disconnect between the observed benefits of these contracts and the low propensity to use such contracts for subordinate performance. Prior research focuses almost exclusively on *subordinates'* reactions to penalty contracts to evaluate this disconnect (e.g., Luft 1994; Imas, Sadoff, and Samek 2016; Gonzalez, Hoffman, and Moser 2017; de Quidt 2018). There is limited research on the way *superiors* react to their subordinates' contract frame, and whether superiors' behavior might explain the paucity of penalty contracts for subordinate performance. This study examines how subordinates' contract frame affects superiors' decisions concerning their subordinates and whether a penalty contract leads to increased leniency from superiors. We further evaluate a potential mechanism to mitigate this leniency.

We focus on examining superior leniency toward subordinates in a target-setting context. Target setting influences forecasting, planning, resource allocation, risk-taking, and motivation, and targets are used to communicate management expectations (Merchant and Manzoni 1989; Sprinkle, Williamson, and Upton 2008; Bol et al. 2010; Chen et al. 2018). Further, executives view targets as vital for organizational success (Feichter, Grabner, and Moers 2018). As such,

any bias in the target-setting process can have far-reaching implications for an organization. Increased leniency in target setting induced by a penalty contract frame could provide an explanation for the lack of penalty contracts for subordinate performance within organizations, as leniency can adversely affect subordinate motivation and overall firm performance (Moers 2005; Bol 2008, 2011; Nair 2017). In addition, biased targets reduce the effectiveness of planning and resource allocation activities that use targets as inputs. Thus, we examine whether superiors set more lenient targets when their subordinates work under a penalty rather than a bonus contract.

Prior research on contract frame finds that a penalty frame leads to lower non-monetary payoffs, elicits loss aversion, and negatively affects perceptions of fairness and trust within an organization (Luft 1994; Hannan et al. 2005; Christ, Sedatole, and Towry 2012; Christ 2013). Superiors usually function (or have functioned) as subordinates, so they are subject to similar concerns and perceptions about penalty framing in their own compensation. Following Social Projection Theory and the false consensus effect (Marks and Miller 1987; Krueger 1998, 2000; Luft, Shields, and Thomas 2016), superiors are likely to project their aversion to penalty contracts onto their subordinates and seek to mitigate subordinates' disutility from the penalty contract imposed by the organization. Thus, we predict that superiors seek to mitigate the perceived negative effects of penalty contracts through leniency in target setting.

We also examine whether increasing the salience of subordinates' choice to work under a particular contract mitigates superior leniency under a penalty contract. Gonzalez et al. (2017) find that choice removes the effort effect of penalty contracts for subordinates. Likewise, making subordinate choice salient to the superior could remove the effect of penalty contracts on target-setting decisions.

Superiors concerned with motivating subordinates' effort consider several aspects in their decision making concerning their subordinates, such as signaling promotability, building a reputation as a skilled leader, retaining good employees, avoiding damage to personal relationships, and limiting confrontation (Harris 1994; Bol 2011; Woods 2012). Making it salient to the superior that the subordinate has chosen the contract signals the subordinate's contract preference. Thus, subordinates choosing a penalty contract lessens superiors' concerns about the negative effects of enforcing the penalty and reduces superiors' tendency to rely on leniency to offset the negative perceptions of the penalty contract. Therefore, we predict that the salience of subordinates' contract choice to the superior moderates the effect of contract frame on superiors' target setting, such that leniency under a penalty contract is lessened when superiors are aware that their subordinates chose to work under a penalty contract.¹

Lastly, we examine whether the aggressive tendencies that accompany Dark Triad personality traits (Paulhus and Williams 2002; Jonason, Slomski, and Partyka 2012; Majors 2015; Martin and Thomas 2018) influence the effects of contract frame and the salience of subordinates' choice of contract on superiors' target-setting decisions. As our study evaluates leniency in target setting (or less aggressiveness), variability in these traits, and the corresponding effects, is relevant to target setting under different contract frames. Further, prior research shows that Dark Triad traits are related to a focus on short-term relationships and a lack of regard for long-term consequences, as well as selfishness, emotional coldness, and an indifference to others (Paulhus and Williams 2002; Judge, Piccolo, and Kosalka 2009; Majors 2015; Young, Dworkis, and Olsen 2015). We argue, that as high Dark Triad superiors are less

¹ There are many factors that can affect individuals' career choices. We do not argue that contract frame is the only factor that influences the decision to accept or decline a job offer. We simply make the bonus/penalty factor the most salient to the superior during the target-setting process as a potential way to reduce bias in the target.

empathetic to others and their circumstances compared to low Dark Triad superiors, high Dark Triad superiors will be less likely to consider how contract frame and choice affect their subordinates and less likely to feel the need to mitigate any negative perceptions of penalty contracts for their subordinates. Thus, we predict that subordinates' contract frame and choice will have less of an effect on the targets set by high Dark Triad superiors compared to low Dark Triad superiors.

We test our hypotheses using a 2 (Bonus/Penalty) x 2 (Choice/No Choice) between-participants experimental design with measured personality traits administered via Qualtrics. Our participants are business school alumni who have considerable experience in supervisory roles and target setting. In the experiment, participants act as superiors tasked with setting a target for a subordinate. The subordinate is subject to either a bonus or penalty contract, which are economically equivalent, and a portion of the participants are made aware that their subordinate chose to work at the current company under the given contract frame (either bonus or penalty) instead of a different company with the opposing contract frame.

We find that superiors set more lenient targets when their subordinates operate under a penalty contract as compared to a bonus contract. However, this leniency bias is mitigated if superiors are aware that subordinates chose their type of contract, such that targets are similar between bonus and penalty contracts. Lastly, we find that the Dark Triad traits significantly influence the interactive effect of subordinate contract frame and choice on superiors' target-setting. In line with our main findings, low Dark Triad superiors set more lenient targets under penalty contracts compared to bonus contracts when their subordinates' choice of contract is not salient, but set similar targets between penalty and bonus contracts when their subordinates'

choice of contract is salient. Conversely, subordinate contract frame and choice do not affect the targets set by high Dark Triad superiors.

We contribute to the accounting literature in three ways. First, we extend prior literature on contract frame and target setting by demonstrating that subordinates' contract frame affects the targets superiors set for their subordinates. We find that superiors empathize with their subordinates facing a penalty contract by setting lower targets compared to a bonus contract, which lowers the probability that the subordinates will be subject to the penalty. Thus, we document that subordinate contract frame is an additional factor that influences target-setting decisions. Showing that penalty contracts lead to leniency in targets, provides a potential reason for the paucity of penalty contracts for subordinate performance in practice.

Second, we introduce a mechanism to reduce target-setting leniency bias under penalty contracts. We show that when subordinates' contract choice is made salient to superiors, superiors are no longer lenient in their target setting under a penalty contract compared to a bonus contract. Specifically, we find that targets are similar between bonus and penalty contracts when the superior is aware that the subordinate self-selected into their contract. This finding suggests that reminding superiors that subordinates chose to work under the given contract could mitigate the tendency to set lower targets under penalty contracts and, potentially, make penalty contracts more acceptable in practice.

Third, we add to the understanding of how individual characteristics, specifically the Dark Triad personality traits, influence reactions to compensation design. Individuals high in Dark Triad traits are generally less empathetic to others, and thus, high Dark Triad superiors are less likely to attempt to mitigate the negative effects of penalty contracts for their subordinates. We show that subordinates' contract frame and choice influence low Dark Triad superiors, such

that they set more lenient targets under a penalty contract when their subordinates' choice of contracts is not salient, but set similar targets between penalty and bonus contracts when subordinates' choice of contract is salient. As hypothesized, however, these factors do not influence the targets set by high Dark Triad superiors.

The remainder of the paper is organized as follows: Section II reviews prior literature and develops the hypotheses, section III explains the experimental design, section IV discusses the results, and section V concludes.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Penalty contracts motivate subordinates to exert greater effort than do bonus contracts (Luft 1994, Hannan et al. 2005; Church et al. 2008; Hossain and List 2012), but, despite this benefit, they are uncommon in practice. Prior research focuses almost exclusively on *subordinates'* reactions to penalty contracts to evaluate the disconnect between the positive effect that penalty contracts have on subordinate effort and the lack of these contracts for subordinate performance in practice (Luft 1994; Hannan et al. 2005; Church et al. 2008; Christ et al. 2012; Hossain and List 2012). There is limited research as to how *superiors* react to their subordinates' contract frame, and whether superiors' behavior might contribute to the paucity of penalty contracts for subordinate performance. This study addresses this paucity by examining how subordinates' contract frame affects superiors' target-setting decisions for their subordinates, and whether a penalty contract increases superiors' leniency in target setting. Increased leniency provides an explanation for the lack of subordinate-performance penalty contracts within organizations, as leniency can adversely affect overall firm performance through lower subordinate motivation and less efficient planning, resource allocation, and other activities that rely on targets as inputs (Moers 2005; Bol 2008, 2011; Nair 2017).

Contract Frame: Bonus vs. Penalty Contracts

Classical economic models do not differentiate between bonus and penalty framing, given that the total expected pay is the same, as these models assume that framing will not influence behavior (e.g., Baker, Jensen, and Murphy 1988). However, framing has been shown to have widespread effects on decision-making (Kahneman and Tversky 1984; Levin, Schneider, and Gaeth 1998; Cornelissen and Werner 2014). In evaluating contract frame, prior research provides insight into why effort is higher under penalty contracts compared to bonus contracts and identifies three reasons why individuals prefer bonus contracts over penalty contract.

First, individuals prefer bonus contracts over penalty contracts as penalty contracts present possible losses. Individuals are generally loss averse, experiencing greater disutility from a loss than utility from a gain of equal magnitude (Kahneman and Tversky 1979). Loss aversion implies that compensation that includes a potential bonus will be perceived as more valuable than compensation of economic equivalence that includes a potential penalty. Luft (1994) and Hannan et al. (2005) argue that loss aversion is the primary explanation for higher effort observed in penalty contracts. The loss aversion associated with penalty contracts leads subordinates to exert greater effort under penalty compared to bonus contracts, as losses loom larger than gains (Luft 1994, Hannan et al. 2005; Church et al. 2008; Hossain and List 2012). Thus, prior research shows that, even though individuals prefer bonus to penalty contracts, they exert greater effort under penalty contracts due to loss aversion. The increased effort under a penalty contract leads to a conundrum, in that firms would benefit from the increased effort, but these contracts are quite limited for subordinate performance in practice.

Second, a contract framed in terms of a bonus leads to higher non-monetary utility compared to an identical contract framed in terms of a penalty (Luft 1994). A bonus has a

positive connotation of achievement, approval, and reward, providing positive non-monetary utility when earned, but avoiding a penalty does not induce the same positive effect. Conversely, being subject to a penalty feels condemning, leading to disutility, while failing to earn a bonus has less of a negative connotation. Thus, individuals can derive non-monetary positive utility from bonus contracts and negative non-monetary utility from a penalty contract.

Third, contract frame affects perceptions of fairness and trust between superiors and subordinates (Christ et al. 2012). Building on prior studies examining the effects of contract frame on subordinate effort in a complete contract setting, Christ et al. (2012) study the mechanisms behind the effect of superiors' choice to implement a given contract on subordinate effort in an incomplete contract setting.² An incomplete contract setting introduces superiors' discretion over bonus allocation or penalty adjustments, as some aspects of the superior-subordinate relationship cannot be ex-ante incorporated into a contract. The authors argue that, in such settings, subordinates' trust in their superiors is an important consideration in subordinates' decisions to exert effort, with greater trust leading to more effort. Their findings indicate that the implementation of a bonus contract leads to greater trust, whereas the implementation of a penalty contract prompts distrust. Thus, prior research documents a strong subordinate preference for bonus contracts due to loss aversion, non-monetary utility, and trust effects.

We posit there are two reasons why subordinates' contract frame influences superiors' leniency towards their subordinates. First, as superiors have usually functioned as subordinates and are subject to similar concerns about their own compensation, they likely have a more favorable disposition toward bonus contracts due to the associated non-monetary benefits and a

² Christ et al. (2012) examine the effect of the superior's choice to implement a certain contract, whereas, we evaluate the effect of an organizationally imposed contract for subordinates, in which the superior did not have a say.

more negative disposition toward penalty contracts due to loss aversion, the negative connotation of penalties, and perceptions of lower fairness and trust. Social Projection Theory and the false consensus effect maintain that individuals expect others to think and act similar to themselves and, thus, underestimate differences between their own and others' beliefs or preferences (Marks and Miller 1987; Krueger 1998, 2000; Luft et al. 2016). Hence, superiors can project their beliefs concerning contract preferences and any potential responses to contract frame upon their subordinates, thus assuming that their subordinates also prefer bonus contracts and experience disutility from penalty contracts. Superiors that have negative perceptions of penalty contracts and project these perceptions onto their subordinates can seek to mitigate these perceived negative effects through leniency in their decisions concerning their subordinates. This is consistent with prior research showing that superiors set lower targets for their subordinates to mitigate concerns about fairness (Bol et al. 2010).

Second, superiors consider several factors other than subordinate motivation in their compensation decisions, such as building a reputation as a skilled leader, retaining good employees, preventing damage to personal relationships, and avoiding confrontation (Harris 1994; Bol 2011; Woods 2012). Further, superiors have an incentive to preserve the trust environment and avoid actions that can be interpreted by subordinates as signals of mistrust (Christ et al. 2012). Thus, superiors can be reluctant to enforce a penalty, compared to provide a bonus, as the enforcement of a penalty is likely to lower trust and retention and increase confrontation costs and damage to personal relationships.

In our study, we examine superiors' leniency in their target-setting decisions. Targets communicate superiors' expectations and can affect resource allocation, organizational planning, risk-taking, financial reporting, and motivation (Merchant and Manzoni 1989; Sprinkle et al.

2008; Bol et al. 2010; Chen et al. 2018). As such, target setting plays a vital role in the management control system and can significantly influence organizational success (Feichter et al. 2018). Any bias in the target-setting process reduces the accuracy of activities that rely on targets as inputs, such as organizational planning and resource allocation decisions.

Hence, we argue that superiors will be more lenient in target setting for subordinates under a penalty compared to a bonus contract to offset the negative connotation of such contracts and lower the likelihood of penalty enforcement. This leniency can manifest in the target-setting process through setting lower targets ex-ante for subordinates under a penalty contract to increase the likelihood of achieving the targets and, thus, reduce the effect of disutility from this contract frame. We formalize the predicted effect in the following hypothesis:

H1: Superiors will set lower targets for subordinates working under a penalty contract than they will for subordinates working under a bonus contract.

Saliency of Subordinate's Contract Choice

Having a choice increases intrinsic motivation and performance, and individuals value being able to choose their own courses of action (Langer and Rodin 1976; Iyengar and Lepper 1999; Botti and Iyengar 2004). For example, individuals are willing to pay more for an insurance policy when they have a choice of policies than they are for the same insurance policy when they have no choice of policies (Szrek and Baron 2007). This finding indicates that individuals are willing to give up some of their resources to acquire a choice regardless of the available options. In line with this view, Gonzalez et al. (2017) show that subordinates who chose to accept either a penalty or bonus contract show no difference in effort between contracts, demonstrating that choice can potentially reduce (or nullify) the effect of contract frame on subordinates' effort.

Prior research in accounting and behavioral economics demonstrates that individuals consider and react to the choices made by counterparties (Rabin 1993; Kagel, Kim, and Moser

1996). More specifically, observing the choice of others increases the perceived value and utility of the chosen alternative to the observer (Chung et al. 2015). Thus, when subordinates' choice to work under a bonus or penalty contract is salient to the superiors, they can take the subordinates' choice as an indication of the value and utility of the contract to the subordinate. If superiors project their own preferences for a bonus contract onto the subordinate, they assume that subordinates value a bonus contract more than a penalty contract. Discovering that the subordinate chose a bonus contract confirms this assumption and, thus, has little incremental effect on superiors' perceptions of the value of bonus and penalty contracts. In contrast, discovering that the subordinate chose a penalty contract contradicts this assumption, indicating that the subordinate values a penalty contract more than a bonus contract.

Additionally, highlighting the subordinates' choice to the superiors would make superiors less likely to project their beliefs concerning contract frame onto their subordinates, as subordinates' choice of contracts reveals their preference for the chosen contract. Individuals tend to assume that others share their preferences and beliefs (Marks and Miller 1987; Kanagaretnam et al. 2009; Luft et al. 2016), which magnifies social projection. Learning about differences between oneself and others, however, greatly diminishes social projection (Robbins and Krueger 2005). Subordinates' choice of penalty contract signals to superiors that subordinates value and experience positive utility from the penalty contract, eliminating superiors' need to mitigate the negative non-monetary effects potentially created by penalty contracts.

Therefore, we argue that the salience of the subordinates' choice of contract to superiors negates the leniency effect of contract frame by highlighting the chosen contract as more valuable to subordinates and as their preference. We expect this lack of leniency to manifest by

superiors setting similar targets for subordinates who choose to work under a penalty contract as they do for those who choose to work under a bonus contract. We state the formal moderating hypothesis:

H2: Making subordinates' choice of contract salient to superiors will moderate the effect of contract frame on the targets set by superiors.

Dark Triad Personality Traits

We further analyze how superiors' Dark Triad personality traits influence the effects of subordinates' contract frame and choice on superiors' target setting. The Dark Triad personality traits of Machiavellianism, narcissism, and psychopathy are conceptually distinct but share a common core based on lack of empathy, interpersonal manipulation, and exploitation of others (Miller et al. 2010; Jones and Paulhus 2011; Jones and Figueredo 2013). Further, research has shown that these traits are relevant to decision-making, strategy, and the success of firm policies at varying levels throughout an organization (e.g., Chatterjee and Hambrick 2007; Wales, Patel, and Lumpkin 2013; Olsen, Dworkis, and Young 2014; Majors 2015). We focus on the Dark Triad traits for two main reasons. First, these traits are shown to relate to aggressive behaviors (Paulhus and Williams 2002; Jonason et al. 2012; Majors 2015; Martin and Thomas 2018), and, as we evaluate leniency (or less aggressive targets), individual variability in traits related to aggressiveness is particularly relevant to target setting under different contract frames. Second, prior research links these traits to risk-seeking behavior, a focus on short term relationships, lack of regard for long term consequences, selfishness, emotional coldness, and lack of empathy (Jonason and Tost 2010; Jonason, Luevano, and Adams 2012; Stead et al. 2012; Crysel, Crosier, and Webster 2013; Majors 2015). These aspects of the Dark Triad traits can lessen superiors'

concern about relevant relationship aspects, such as confrontation and trust, and reduce empathy toward subordinates and the consideration of the subordinates' perspective.

Our hypothesized effects of subordinate contract frame and choice on superiors' leniency in target setting depend on superiors projecting their preferences onto subordinates, empathizing with subordinates, and mitigating the perceived negative effects of contract frame by setting more lenient targets. The resulting leniency depends on superiors' ability to imagine and care about the perspective of their subordinates. High Dark Triad individuals, however, are self-oriented and strive to reach their own goals without regard for others, which limits their ability to take the perspective of others (Jones and Paulhus 2010; Jonason et al. 2012; Lee et al. 2013; Giammarco and Vernon 2014; Grijalva et al. 2015). Further, these individuals can negatively view others as weak and emotional, which likely makes it difficult to take on and empathize with another's perspective (Christie and Geis 1970; Morf and Rhodewalt 1993; Jones and Paulhus 2010; Rauthmann and Will 2011; Rauthmann 2012; Black, Woodworth, and Porter 2014).

This general lack of empathy can interfere with high Dark Triad individuals' ability to recognize and care about another's internal state (Wai and Tiliopoulos 2012; Brook and Kosson 2013; Jonason and Krause 2013; Black et al. 2014; Giammarco and Vernon 2014). Hence, we argue that high Dark Triad superiors' will be less likely to consider the impact of subordinates' contract frame and choice on the subordinates' behavior and perceptions of fairness and trust compared to low Dark Triad superiors. In turn, high Dark Triad superiors will not feel the need to mitigate the negative connotation of a penalty contract and will, thus, be less lenient in their targets for subordinates that face a penalty contract. Accordingly, we predict that subordinates' contract frame and choice will have less of an effect on high Dark Triad superiors' target setting

compared to low Dark Triad superiors. The above discussion leads us to hypothesize the following interaction:

H3: Dark Triad traits will moderate the combined effect of contract frame and choice on superiors' target-setting, with less of an effect on high Dark Triad superiors compared to low Dark Triad superiors.

III. RESEARCH DESIGN

Participants

Participants are 325 business school alumni recruited from the alumni database of a large Midwestern business school. The participants are 63% male and are, on average, 50 years old. The sample of participants also has considerable organizational experience with 25 years of work experience, which includes 16 years of supervisory and 11 years of target-setting experience, on average.

We solicit responses from a random sample of 7,000 alumni. A total of 660 participants started the survey, and of these, 405 completed the survey in its entirety.³ To ensure that observations are analyzed from participants who provided sufficient focus to the experiment and understood our manipulations, some observations are removed before arriving at the final sample. First, we remove 67 participants who failed either of the two manipulation check questions.⁴ Second, we remove 11 participants who spent more than 10 minutes on the target-setting screen, which indicates these participants were distracted at the critical point of the survey, as 95% of all respondents spent less than five minutes on this screen. Finally, we remove two participants who entered an extreme growth target of over 70%. These two participants might have mistyped the growth target or

³ There are no significant differences in dropout rate between conditions ($ps > 0.14$).

⁴ The manipulation check questions ask, "Your line manager receives a bonus (is subject to a penalty) if he/she meets (does not meet) the target that you set" and "You were informed that the line manager chose to work for [this company] rather than another company with a different compensation plan" with answer choices as "Yes" or "No".

misunderstood the instructions, as the growth goal for the organization is 8%, and the average growth target set is 6.87%. Thus, our final sample consists of 325 participants.

Tasks and Procedure

We use a 2 (Bonus/Penalty Contract) x 2 (Choice/No Choice) between-participant experimental design, with measured personality traits, adapted from Martin and Thomas (2018). We administer the study via a Qualtrics link emailed to potential participants. Participants assume the role of the division manager for the swimwear division of a firm that specializes in producing and selling designer clothing at a lower cost. Their primary task is to set the annual target for one of their line managers (subordinate). Participants are informed that they are responsible for division profit growth and that their compensation is dependent on whether the company achieves its profit growth target. The company's goal is to grow profit by 8%, which is a significant jump from the 4% growth in the previous year. Their division is responsible for the production, marketing, and pricing strategy for swimwear, which makes up 30% of the company's sales dollars and 35% of the profit dollars.

Participants read that their subordinate's compensation is comprised of a fixed salary and either a potential bonus or penalty, randomly assigned. The subordinate's total compensation is described as either a salary of 500 Tilas and a potential bonus of 50 Tilas, or a salary of 550 Tilas and a potential penalty of 50 Tilas (keeping the contracts economically equivalent). The bonus is earned (not earned) if the subordinate beats (misses) the target that the participant sets, while the penalty applies (does not apply) if the subordinate misses (beats) the target that the participant sets.

We manipulate the salience of the subordinate's choice of contract by informing half of the participants that the subordinate chose to work for the company under the bonus (penalty) contract rather than to work for another company with a penalty (bonus) contract, while the remaining participants do not receive this information. This manipulation is akin to that used in Gonzalez et al. (2017), in which the authors evaluate how contract choice affects subordinates' effort. In the study, 'firms' offered jobs with either an economically equivalent bonus or penalty contract and workers had the opportunity to select a job, and several workers were able to choose between jobs with different contract frames. In our study, we make this choice between firms with different contract frames salient to the superior.

Participants are then provided with information about the subordinate's responsibilities and told that the subordinate achieved profit growth of 5% in the previous year. All participants receive further information about the subordinate's and the subordinate's peers' past performance over the last four years, the economic forecast, the industry forecast, and the forecast for swimwear (shown in Appendix A).⁵ Participants are then asked to set the annual profit growth target in percentage form for their subordinate. They complete the experiment by answering manipulation check and post-experimental questions, and are then provided with an opportunity to enter into a gift card drawing.

At the end of the instrument, participants are informed that they will receive a link to a second survey within two weeks. This follow-up survey focused on personality

⁵ This additional information was selected based on past findings that these types of information are important in determining performance measures and setting targets (Lambert 2001; Murphy 2000; Gong, Li, and Shin 2011; Holzhaecker, Mahlendorf, and Matejka 2013).

characteristics and was sent about a week after the initial survey was complete.⁶ After completing this follow-up survey, participants are provided another opportunity to enter to win a gift card.

Variable Measurement

Our primary dependent variable is the leniency of the target, captured directly by the level of the target that participants set (*Target*). Our independent variables are *ContractFrame*, a dummy variable for whether the subordinate is subject to a potential bonus (coded as 0) or potential penalty (coded as 1), and *Choice*, a dummy variable for whether it is salient that the subordinate had a choice of companies with differing contracts to work for or not. We measure participants' level of Dark Triad traits using the Short Dark Triad Scale (SD3, shown in Appendix B).⁷ The responses are cumulated, and a median-split is used to identify participants as high or low Dark Triad (*DarkTriad*).

IV. RESULTS

Effect of Contract Frame (H1)

We first examine the effect of *ContractFrame* on the targets set by superiors to evaluate whether superiors are more lenient when their subordinates work under a penalty contract compared to a bonus contract (H1), with descriptive statistics shown in Table 1, Panel A. We find that, when subordinate choice is not made salient, superiors set more lenient targets for subordinates under a penalty contract (6.58%) compared to a bonus contract (7.08%) ($p = 0.02$,

⁶ We included several personality questionnaires in the follow-up survey to reduce hypothesis guessing and randomized the order in which participants answered the questionnaires. The experimental task and personality questionnaires were sent at different times to remove potential confounding effects from completing them at the same time. A week delay was used to provide sufficient time to remove effects from the experiment on responses to the personality questionnaires. This time delay when collecting personality characteristics with an experimental task is in line with prior studies (e.g., Holderness, Olsen, and Thornock 2016, 2017; Martin and Thomas 2018).

⁷ This short questionnaire is strongly correlated with the full instrument and is shown to have high internal consistency for each individual trait and an acceptable factor structure (Jones and Paulhus 2014).

one-tailed). Gender can play a role in aggressiveness, such that males and females vary in their aggressive tendencies (e.g., Björkqvist 1994), and thus, we also test the effect of *ContractFrame* on *Target* with *Gender* as a covariate (untabulated). In this model, *Gender* is significant ($p = 0.03$, two-tailed) and *ContractFrame* remains significant ($p = 0.01$, one-tailed), again in support of H1. Participants are also asked the following post experimental question using a 5-point Likert scale: “I intentionally set a difficult target to drive higher employee performance.” The findings further support our hypothesis that superiors are more lenient under a penalty contract (Bonus/No Choice = 3.63 > Penalty/No Choice = 3.25; $p = 0.02$, one-tailed). Hence, the evidence provides support that the type of contract that subordinates operate under influences superiors’ target-setting decisions concerning their subordinates, such that superiors set more lenient targets for subordinates under a penalty contract compared to a bonus contract.

Effect of Contract Choice Salience (H2)

We predict in H2 that the salience of subordinates’ contract choice to superiors will moderate the effect of contract frame on target setting, such that the difference in target levels set by superiors between bonus and penalty contracts will be mitigated when the subordinates’ choice is salient to superiors. Figure 1 illustrates that our results are consistent with the predicted interaction. To test this prediction, we run a general linear model with *Target* as the dependent variable and *ContractFrame* and *Choice* as the independent variables. As we show that *Gender* significantly affects *Target*, we include this variable in the model as a covariate. Table 1, Panel B shows that *ContractFrame* still has a direct effect on *Target* ($p = 0.01$, one-tailed), but that this effect is significantly moderated by *Choice* ($p = 0.03$, one-tailed), supporting H2.⁸ As noted, there is a significant difference in the target level set by superiors between penalty and bonus

⁸ There is no qualitative difference in inferences when *Gender* is excluded from the model.

contracts when the subordinate's choice is not salient to the superior ($6.58 < 7.08$, $p = 0.02$, one-tailed), but there is no difference in the targets set by superiors between contract conditions when the subordinate choice is salient ($6.88 \approx 6.86$, $p = 0.95$, two-tailed). Thus, superiors are more lenient in their target setting under a penalty contract compared to a bonus contract, but this leniency is mitigated when it is salient that the subordinate had a choice of contract. Further analyses discussed in the next section, however, provide evidence that low Dark Triad superiors drive the effects related to H1 and H2.

[Insert Figure 1 and Table 1 here]

Dark Triad Personality Traits

We predict that the superiors' level of Dark Triad personality traits moderates the combined effect of subordinates' contract frame and choice on targets set by superiors. We argue that these factors will have less of an effect on high Dark Triad superiors compared to low Dark Triad superiors, as superiors high in the Dark Triad traits are less likely to consider the effect of contract frame and choice from their subordinates' perspective. To evaluate this prediction, we included the SD3 for Dark Triad traits in our follow-up characteristic survey. This survey was sent to the 325 participants that completed the initial instrument, and of these, we received 256 sufficiently completed responses.⁹ For our analysis, we cumulate the responses to the SD3 and use a median-split to characterize participants as high and low Dark Triad superiors. Those at or above the median are classified as high Dark Triad, with those below the median classified as low Dark Triad.¹⁰ High (Low) Dark Triad participants are coded as 1 (0). Figure 2 outlines the frequency of the cumulated ratings for each characteristic and the combination of the Dark Triad

⁹ We continue to find support for H1 and H2 using this reduced sample.

¹⁰ Our inferences are unchanged if we classify only those above the median as high Dark Triad, and those at or below the median as low Dark Triad; or if we drop those participants at the median and compare only those above the median (high Dark Triad) to those below the median (low Dark Triad).

traits, and Figure 3 illustrates the pattern of effects of subordinates' contract frame and choice with low Dark Triad superiors (Panel A) and high Dark Triad superiors (Panel B).¹¹

[Insert Figure 2 and Figure 3 here]

We use the completed responses to run a general linear model with *Target* as the dependent variable and *ContractFrame*, *Choice*, and *DarkTriad* as the independent variables, shown on Table 2. We again control for *Gender* as it is significantly correlated with target leniency.¹² We continue to find that *ContractFrame* directly affects *Target* ($p = 0.01$, one-tailed) and that *ContractFrame* and *ContractChoice* significantly interact to affect *Target* ($p = 0.01$, one-tailed). As predicted, we find that *DarkTriad* moderates this interaction, such that high and low Dark Triad superiors are affected differently by subordinates' contract frame and choice in target setting ($p = 0.05$, one-tailed), supporting H3.¹³

[Insert Table 2 here]

We also evaluate the same general linear model separately for low and high Dark Triad superiors, shown on Table 3. For low Dark Triad superiors (Table 3, Panel A), we find that *ContractFrame* directly affects *Target* ($p = 0.03$, two-tailed) and that *ContractFrame* and *Choice* significantly interact to affect *Target* ($p = 0.02$, two-tailed). On the other hand, there are no significant effects of *ContractFrame* or *Choice* on *Target* ($ps > 0.40$, two-tailed) for high Dark Triad superiors (Table 3, Panel B). Accordingly, simple effects tests, shown on Table 4, demonstrate that low Dark Triad superiors give more lenient targets to subordinates with a penalty contract, but this effect is mitigated when the subordinate's choice is salient (Panel A).

¹¹ The pattern of results verifies the findings in Martin and Thomas (2018), that high Dark Triad superiors tend to set lower targets than low Dark Triad superiors when they do not have ex post compensation discretion.

¹² There is no qualitative difference in inferences when *Gender* is excluded from the model.

¹³ To test the robustness of our dichotomous *DarkTriad* variable, we also run a regression model using a continuous *DarkTriad* measure. In the model, we regress *Target* on *ContractFrame*, *Choice*, and *DarkTriad*, with full interaction of these variables. We find a significant interaction of *ContractFrame*, *Choice*, and *DarkTriad* ($p = 0.01$, one-tailed), further supporting H3.

On the other hand, subordinates' contract frame and choice do not appear to influence the targets set by high Dark Triad superiors (Panel B). Thus, low Dark Triad superiors drive the tendency to be lenient under a penalty contract that we document in prior tests of H1, suggesting that high Dark Triad superiors' target-setting decisions are not influenced by subordinate-related concerns.

[Insert Tables 3 and 4 here]

We further evaluate how the individual traits within the Dark Triad influence the effect of subordinates' contract frame and choice on target setting. We run the same model, with *Machiavellianism*, *Narcissism*, and *Psychopathy* as an independent variable in place of *DarkTriad* (untabulated). We find that *Machiavellianism* ($p = 0.09$, one-tailed) and *Narcissism* ($p = 0.02$, one-tailed) significantly interact with *ContractFrame* and *Choice*, supporting H3. However, there is no significant effect of *Psychopathy* ($p = 0.14$, one-tailed). If the measures of *Machiavellianism* and *Narcissism* are cumulated, the combined effect also interacts with *ContractFrame* and *Choice* to affect *Target* ($p = 0.05$, one-tailed). Thus, our findings for the *DarkTriad* are driven mainly by superiors' levels of Machiavellianism and narcissism.

Supplemental Analyses

We first explore whether superiors' have a preference for bonus contracts as argued in our theoretical development. In a post-experimental question, we provide participants two economically equivalent contracts (bonus vs. penalty) and ask them to rate their preference between the contracts on a 100-point Likert scale, with zero showing full preference for the bonus contract and 100 showing full preference for the penalty contract. We find that the mean response is 22.25, which is significantly less than the midpoint of 50 ($p < 0.001$, two-tailed),

supporting our argument that superiors prefer a bonus contract and can potentially project this preference onto their subordinates.

We also evaluate how subordinates' contract frame influences superiors' perceptions of penalty vs. bonus contracts and concerns about these contracts. Participants answer a series of post-experimental questions to assist in understanding the aspects that drive the observed target leniency (untabulated). Those in the penalty conditions find the target-setting process more difficult and stressful ($ps < 0.01$, two-tailed) than those in the bonus conditions. Participants in the penalty conditions are also more concerned about their subordinate, and their own image as superiors, compared to participants in the bonus conditions. Specifically, participants in the penalty contract conditions show more concern about hurting their relationship with the subordinate, avoiding confrontations with subordinates, being criticized by the subordinate, being perceived as fair and effective by their own superior, the outcome if the subordinate did not achieve the target, and their image as a target-setter (untabulated, $ps \leq 0.05$, two-tailed). These findings support the argument that superiors perceive penalty contracts more negatively than bonus contracts, and can thus project these perceptions to their subordinates, leading to a perceived need to mitigate disutility arising from penalty contracts.

V. CONCLUSION

In our study, we evaluate the effect of subordinates' contract frame and choice on superiors' target-setting decisions concerning their subordinates. Several studies have examined the effect of contract frame on subordinates' behavior, providing evidence that subordinates have a strong preference for bonus contracts but tend to provide greater effort under a penalty contract (Luft 1994; Hannan et al. 2005; Church et al. 2008; Hossain and List 2012). There is a paucity of research, however, as to how subordinate contract frame affects superiors.

We find that penalty contracts lead to leniency in superiors' decisions concerning their subordinates, as demonstrated by lower targets set for subordinates working under a penalty contract rather than a bonus contract. These findings can provide some insight as to the limited amount of penalty contracts used within organizations for subordinate performance, as these types of contracts can lead to greater leniency bias in superiors' decisions, which reduces their organizational effectiveness, as targets are used for motivation, forecasting, resource allocation, planning, and other essential organizational functions (Merchant and Manzoni 1989; Sprinkle et al. 2008; Bol et al. 2010; Chen et al. 2018). However, we find that superiors are no longer lenient when they are reminded that the subordinate self-selected into the type of contract, suggesting that superiors use subordinate choice to judge the value and utility that the subordinate garners from the contract rather than projecting their own contract preference onto their subordinate. This finding reveals a simple mechanism that can counteract superiors' leniency under a penalty contract. If subordinates' choice to work for the firm under a specific contract is made salient to superiors as they are making target-setting decisions, leniency in target setting can be mitigated, providing a simple and cost-effective method for firms to reap the benefits of penalty contracts without inducing leniency.

It is important to note that the observed effects are concentrated in low Dark Triad superiors, highlighting the importance of understanding how personality characteristics influence the effectiveness of management control systems. Specifically, we find that low Dark Triad superiors are more lenient in target setting to those subordinates who operate under a penalty contract unless it is salient that the subordinate chose the contract. High Dark Triad superiors, on the other hand, are less likely to empathize with their subordinates and consider the situation from their subordinates' point of view. Consistently, we find that high Dark Triad superiors are

not influenced by subordinates' contract frame and choice, setting similar targets regardless of the type of contract the subordinate operates under and whether or not they are aware that the subordinate chose the contract.

We make several contributions to the accounting literature. First, we extend prior literature on target setting and the effects of contract frame on subordinate behavior by demonstrating that subordinates' contract frame influences superiors' target-setting decisions. Understanding superiors' perspectives can provide insight into the disconnect between the documented benefits of penalty contracts for subordinate performance and the lack of penalty contracts in practice. Superiors' leniency in the target-setting process can potentially help explain this disconnect, as we provide evidence that subordinates' penalty contracts can lead to leniency bias in target setting.

Second, we introduce a way to mitigate superiors' target-setting leniency. Making it salient to superiors that subordinates have chosen to work under a penalty contract mitigates the tendency to be lenient. Thus, firms can reap the motivational benefits of penalty contracts without the associated target-setting leniency bias. If superiors set targets after being reminded that the subordinate had a choice, target leniency should be significantly lessened.

Third, we add to the understanding of how individual characteristics, specifically the Dark Triad personality traits, influence reactions to compensation design. We show that low Dark Triad superiors are influenced by subordinates' contract frame and choice, such that they set more lenient targets with a penalty contract without subordinate choice but set similar targets between penalty and bonus contracts when the subordinates' choice of contract is salient. However, these factors do not significantly influence the targets set by high Dark Triad superiors. As organizations are made up of individuals, it is important to understand how their

behaviors and characteristics affect organizational decision making (Kachelmeier 2010), and our findings highlight the importance of understanding individual characteristics that influence the effectiveness of management control systems. Without investigating the effect of Dark Triad characteristics, the findings related to our first hypothesis would imply that *all* superiors are more lenient when their subordinates face a potential penalty when, in fact, only low Dark Triad superiors are more lenient.

APPENDIX A
Information Set for Target Setting

Past performance for four years: Your line manager achieved the following profit growth in the past four years:

Year	2016	2015	2014	2013
Profit Growth	5%	3%	5%	6%

Past peer performance for four years: Your line manager has three peers within the company. These individuals achieved the following profit growth in the past:

Year	2016	2015	2014	2013
Peer 1	2%	7%	5%	4%
Peer 2	8%	6%	5%	5%
Peer 3	5%	4%	6%	2%

Economic Forecast: For the coming year, the U.S. GDP is expected to grow by 2%. Unemployment is expected to be 7% on average. Inflation is expected to increase slightly to 1.8%. Existing home sales are expected to increase 4%. These statistics are slightly better than last year.

Industry Forecast: Retail sales growth is expected to be modest around 5% or less, with profit growth of 4% or less.

Swimwear Forecast: Designer swimwear is expected to grow at the same rate as the retail industry: Sales growth of 5% or less and profit growth of 4% or less.

APPENDIX B
Short Dark Triad Scale (SD3) – Jones and Paulhus (2014)

Machiavellianism subscale

1. It's not wise to tell your secrets.
2. I like to use clever manipulation to get my way.
3. Whatever it takes, you must get the important people on your side.
4. Avoid direct conflict with others because they may be useful in the future.
5. It's wise to keep track of information that you can use against people later.
6. You should wait for the right time to get back at people.
7. There are things you should hide from other people to preserve your reputation.
8. Make sure your plans benefit you, not others.
9. Most people can be manipulated.

Narcissism subscale

1. People see me as a natural leader.
2. I hate being the center of attention. (R)
3. Many group activities tend to be dull without me.
4. I know that I am special because everyone keeps telling me so.
5. I like to get acquainted with important people.
6. I feel embarrassed if someone compliments me. (R)
7. I have been compared to famous people.
8. I am an average person. (R)
9. I insist on getting the respect I deserve.

Psychopathy subscale

1. I like to get revenge on authorities.
2. I avoid dangerous situations. (R)
3. Payback needs to be quick and nasty.
4. People often say I'm out of control.
5. It's true that I can be mean to others.
6. People who mess with me always regret it.
7. I like to pick on losers.¹⁴
8. I'll say anything to get what I want.

*The scales are provided in a random order to participants with the italicized headings removed.

¹⁴ Two statements were removed from the psychopathy subscale due to their sensitive nature (i.e., legal issues and intimate relations). Statement seven in the psychopathy subscale was added from an earlier version of the SD3.

REFERENCES

- Al Shaiba, M. E. 2015. "Salary cut for arriving late to work." Gulfnews.com. <http://gulfnews.com/guides/ask-the-law/employment/salary-cut-for-arriving-late-to-work-1.1613978> (accessed September 2017).
- Björkqvist, K. 1994. Sex differences in physical, verbal, and indirect aggression: A review of recent research. *Sex Roles* 30 (3/4): 177-188.
- Baker, G. P., M. C. Jensen, and K. J. Murphy. 1988. Compensation and incentives: Practice vs. theory. *Journal of Finance* 43 (3): 593-616.
- Black, P., M. Woodworth, and S. Porter. 2014. The big bad wolf? The relation between Dark Triad and the interpersonal assessment of vulnerability. *Personality and Individual Differences* 67: 52–56.
- Bol, J. C., T. M. Keune, E. M. Matsumura, and J. Y. Shin. 2010. Supervisor discretion in target setting: An empirical investigation. *The Accounting Review* 85 (6): 1861–1886.
- Bol, J.C. 2008. Subjectivity in Compensation Contracting. *Journal of Accounting Literature* 27: 1–32.
- Bol, J. C. 2011. The determinants and performance effects of managers' performance evaluation biases. *The Accounting Review* 86 (5): 1549–1575.
- Botti, S., and S. S. Iyengar. 2004. The psychological pleasure and pain of choosing: When people prefer choosing at the cost of subsequent outcome satisfaction. *Journal of Personality and Social Psychology* 87 (3): 312–326.
- Brook, M., and D. Kosson. 2013. Impaired cognitive empathy in criminal psychopathy: Evidence from a laboratory measure of empathic accuracy. *Journal of Abnormal Psychology* 122: 156–166.
- 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.
- Chen, C. X., M.J. Kim, L. Y. Li, and W. Zhu. 2018. *Target Difficulty and Corporate Risk Taking*. Working Paper, University of Illinois.
- Christ, M. H. 2013. An experimental investigation of the interactions among intentions, reciprocity, and control. *Journal of Management Accounting Research* 25 (1): 169–197.
- Christ, M. H., K. L. Sedatole, and K. L. Towry. 2012. Sticks and carrots: The effect of contract frame on effort in incomplete contracts. *The Accounting Review* 87 (6): 1913–1938.
- Christie, R., and F. Geis. 1970. *Studies in Machiavellianism*. New York, NY: Academic Press.
- Chung, D., G. I. Christopoulos, B. King-Casas, S. B. Ball, and P. H. Chiu. 2015. Social signals of safety and risk confer utility and have asymmetric effects on observers' choices. *Nature Neuroscience* 18 (6): 912–16.
- Church, B. K., T. Libby, and P. Zhang. 2008. Contracting frame and individual behavior: Experimental evidence. *Journal of Management Accounting Research* 20 (1): 153–168.

- Cornelissen and Werner. 2014. Putting framing in perspective: A review of framing and frame analysis across the management and organizational literature. *The Academy of Management Annals* 8 (1): 181-235.
- 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.
- De Quidt, J. 2018. Your loss is my gain: A recruitment experiment with framed incentives. *Journal of European Economic Association* 16 (2): 522-559.
- Feichter, C., I. Grabner, and F. Moers. 2018. Target setting in multi-divisional firms: State of the art and avenues for future research. *Journal of Management Accounting Research* 30 (3): 29-54.
- Giammarco, E., and P. Vernon. 2014. Vengeance and the Dark Triad: The role of empathy and perspective taking in trait forgiveness. *Personality and Individual Differences* 67: 23-29.
- Gong, G., L. Y. Li, and J. Y. Shin. 2011. Relative performance evaluation and related peer groups in executive compensation contracts. *The Accounting Review* 86 (3): 1007-43.
- Gonzalez, G., V. B. Hoffman, and D. V. Moser. 2017. *Do Effort Differences between Bonus and Penalty Contracts Persist in Labor Markets?* Working paper, University of Lethbridge and University of Pittsburgh.
- Grijalva, E., P. Harms, D. Newman, B. Gaddis, and R. Fraley. 2015. Narcissism and leadership: A meta-analytic review of linear and non-linear relationships. *Personnel Psychology* 68: 1-47.
- Hannan, R. L., V. B. Hoffman, and D. V. Moser. 2005. Bonus versus penalty: Does contract frame affect employee effort? In *Experimental Business Research* 2: 151-169.
- Harris, M. 1994. Rater Motivation in the performance appraisal context: A theoretical framework. *Journal of Management* 20 (4): 735-756.
- Holderness Jr, D. K., K. J. Olsen, and T. A. Thornock. 2016. *Might Someone See? The Effect of Psychological Entitlement and Performance Monitoring on Production and Misreporting*. Working paper, West Virginia University, Utah State University, and University of Nebraska at Lincoln.
- . 2017. Who are you to tell me that?! The moderating effect of performance feedback source and psychological entitlement on individual performance. *Journal of Management Accounting Research* 29 (2): 33-46.
- Holzhaecker, M. K., M. D. Mahlendorf, and M. Matejka. 2013. *Relative Performance Evaluation and Target Setting*. Working Paper, January. <https://doi.org/10.2139/ssrn.2312140>.
- Hossain, T., and J. A. List. 2012. The behavioralist visits the factory: Increasing productivity using simple framing manipulations. *Management Science* 58 (12): 2151-2167.
- Imas, A., S. Sadoff, and A. Samek. 2016. Do people anticipate loss aversion?." *Management Science* 63 (5) : 1271-1284.
- Iyengar, S. S., and M. R. Lepper. 1999. Rethinking the value of choice: A cultural perspective on intrinsic motivation. *Journal of Personality and Social Psychology* 76 (3): 349-366.

- Jonason, P., and L. Krause. 2013. The emotional deficits associated with the Dark Triad traits: Cognitive empathy, affective empathy, and alexithymia. *Personality and Individual Differences* 55: 532–537.
- Jonason, P., V. X. Luevano, and H. M. Adams. 2012. How the Dark Triad traits predict relationship choices. *Personality and Individual Differences* 53 (3): 180–184.
- Jonason, P., S. Slomski, and J. Partyka. 2012. The Dark Triad at work: How toxic employees get their way. *Personality and Individual Differences* 52: 449–453.
- Jonason, P., and J. Tost. 2010. I just cannot control myself: The Dark Triad and self-control. *Personality and Individual Differences* 49 (6): 611–615.
- Jones, D., and A. J. Figueredo. 2013. The core of darkness: Uncovering the heart of the Dark Triad. *European Journal of Personality* 27 (6): 521–531.
- Jones, D., and D. Paulhus. 2011. Differentiating the Dark Triad within the interpersonal circumplex. In *Handbook of Interpersonal Psychology: Theory, Research, Assessment, and Therapeutic Interventions*, edited by L.M. Horowitz and S. Strack, 249–268. New York, NY: Wiley.
- Judge, T. A., R. F. Piccolo, and T. Kosalka. 2009. The bright and dark sides of leader traits: A review and theoretical extension of the leader trait paradigm. *The Leadership Quarterly* 20 (6): 855–875.
- Kachelmeier, S. J. (2010). Introduction to a forum on individual differences in accounting behavior. *The Accounting Review* 85 (4): 1127–1128.
- Kagel, J. H., C. Kim, and D. Moser. 1996. Fairness in ultimatum games with asymmetric information and asymmetric payoffs. *Games and Economic Behavior* 13 (1): 100–110.
- Kahneman, D., and A. Tversky. 1979. Prospect theory: An analysis of decision under risk. *Econometrica* 47 (2): 263–291.
- . 1984. Choices, values, and frames. *American Psychologist* 39 (4): 341–350.
- Krueger, J. 1998. On the perception of social consensus. *Advances in Experimental Social Psychology* 30: 163–240.
- . 2000. The projective perception of the social world. In *Handbook of Social Comparison*, edited by J. Suhs and L. Wheeler, 323–351. New York, NY: Springer.
- Lambert, Richard A. 2001. Contracting theory and accounting.” *Journal of Accounting and Economics* 32 (1–3): 3–87.
- Langer, E., and J. Rodin. 1976. The effects of enhanced personal responsibility for the aged. *Journal of Personality and Social Psychology* 34 (2): 191–198.
- Lee, K., M. Ashton, J. Wiltshire, J. Bourdage, B. Visser, and A. Gallucci. 2013. Sex, power, and money: Prediction from the Dark Triad and honesty-humility. *European Journal of Personality* 27: 169–184.
- Levin, I. P., S. L. Schneider, and G. J. Gaeth. 1998. All frames are not created equal: A typology and critical analysis of framing effects. *Organizational Behavior and Human Decision Processes* 76 (2): 149–188.

- Luft, J. 1994. Bonus and penalty incentives contract choice by employees. *Journal of Accounting and Economics* 18 (2): 181–206.
- Luft, J., M. D. Shields, and T. F. Thomas. 2016. Additional Information in Accounting Reports: Effects on Management Decisions and Subjective Performance Evaluations Under Causal Ambiguity. *Contemporary Accounting Research* 33 (2): 526-550.
- Majors, T. 2016. The interaction of communicating measurement uncertainty and the Dark Triad on managers' reporting decisions. *The Accounting Review* 91 (3): 973–992.
- Marks, G. and N. Miller. 1987. Ten years of research on the false-consensus effect: An empirical and theoretical review. *Psychological Bulletin* 102 (1): 72–90.
- Martin, R. and T. Thomas. 2018. *Target Setting with Compensation Discretion: How are Targets Affected When Superiors Have a Back-up Plan?* Working Paper, Utah State University and University of Wisconsin.
- Merchant, K. A., and J. F. Manzoni. 1989. The achievability of budget targets in profit centers: A field study." *The Accounting Review* 64 (3): 539–58.
- Miller, J. D., A. Dir, B. Gentile, L. Wilson, L. R. Pryor, and W. K. Campbell. 2010. Searching for a vulnerable Dark Triad: Comparing factor 2 psychopathy, vulnerable narcissism, and borderline personality disorder. *Journal of Personality* 78: 1529–1564.
- Moers, F. (2005). Discretion and bias in performance evaluation: the impact of diversity and subjectivity. *Accounting, Organizations and Society* 30 (1): 67–80.
- Morf, C., and F. Rhodewalt. 1993. Narcissism and self-evaluation maintenance: Explorations in object relations. *Personality and Social Psychology Bulletin* 19: 668–676.
- Murphy, K. J. 2000. Performance standards in incentive contracts. *Journal of Accounting and Economics* 30 (3): 245–78.
- Nair, S. 2017. *Leniency Bias and Organizational Performance*. Working Paper, University of Melbourne.
- Olsen, K., K. Dworkis, and S. Young. 2014. CEO Narcissism and accounting: A picture of profits. *Journal of Management Accounting Research* 26 (2): 243–267.
- 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.
- Pearson, S. D., and S. R. Lieber. 2009. Financial penalties for the unhealthy? Ethical guidelines for holding employees responsible for their health. *Health Affairs* 28 (3): 845–852.
- Rabin, M. 1993. Incorporating fairness into game theory and economics. *The American Economic Review* 83 (5): 1281–1302.
- Rauthmann, J. 2012. The Dark Triad and interpersonal perception: Similarities and differences in the social consequences of narcissism, Machiavellianism, and psychopathy. *Social Psychological and Personality Science* 3 (4): 487–496.
- Rauthmann, J., and T. Will. 2011. Proposing a multidimensional Machiavellianism conceptualization. *Social Behavior and Personality* 39: 391–404.

- Sprinkle, G. B., M. G. Williamson, and D. R. Upton. 2008. The effort and risk-taking effects of budget-based contracts. *Accounting, Organizations and Society* 33 (4–5): 436–52.
- Stead, R., G. C. Fekken, A. Kay, and K. Mcdermott. 2012. Conceptualizing the Dark Triad of personality: Links to social symptomatology. *Personality and Individual Differences* 53 (8): 1023-1028.
- Szrek, H., and J. Baron. 2007. The value of choice in insurance purchasing. *Journal of Economic Psychology* 28 (5): 529–544.
- Vitasek, K. 2016. “Target increases penalties up to five times for suppliers starting today.” Forbes.com. <https://www.forbes.com/sites/katevitasek/2016/05/30/target-increases-penalties-up-to-5x-for-suppliers-starting-today/#474fa0e774c0> (accessed September 2017).
- Wai, M., and N. Tiliopoulos. 2012. The affective and cognitive empathic nature of the Dark Triad of personality. *Personality and Individual Differences* 52: 794–799.
- Wales, W. J., P. C. Patel, and G. T. Lumpkin. 2013. In pursuit of greatness: CEO Narcissism, entrepreneurial orientation, and firm performance variance. *Journal of Management Studies* 50 (6): 1041-1069.
- Woods, A. Subjective adjustments to objective performance measures: The influence of prior performance. *Accounting, Organizations and Society* 37:6 (2012): 403–425.
- Young, S., F. Du, K. Dworkis, and K. Olsen. 2015. 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.

FIGURE 1
Targets set by Subordinates' Contract Frame and Choice

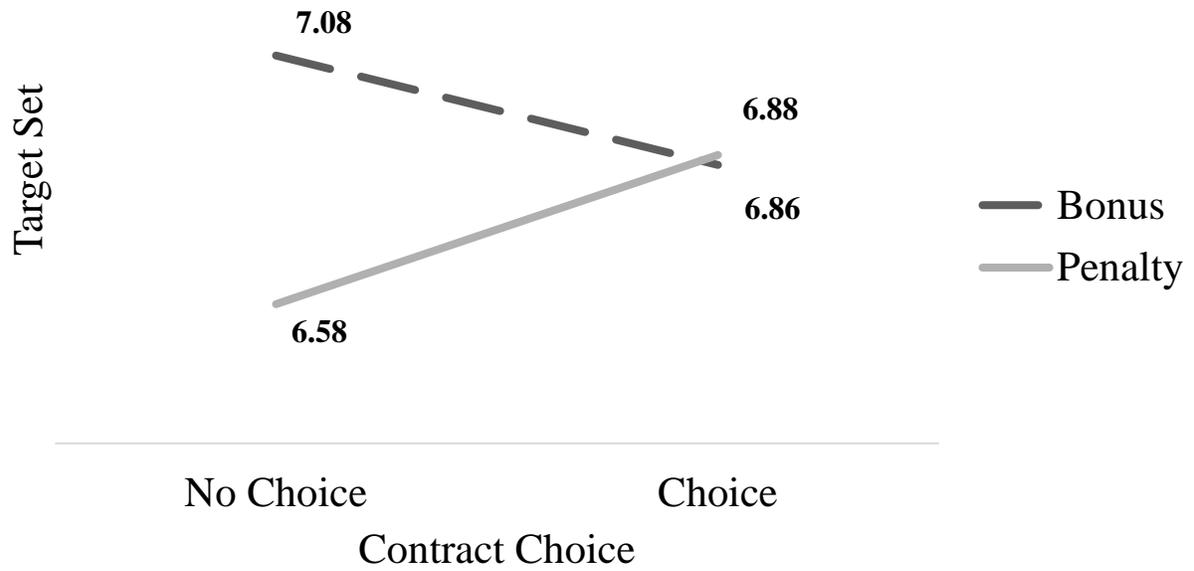
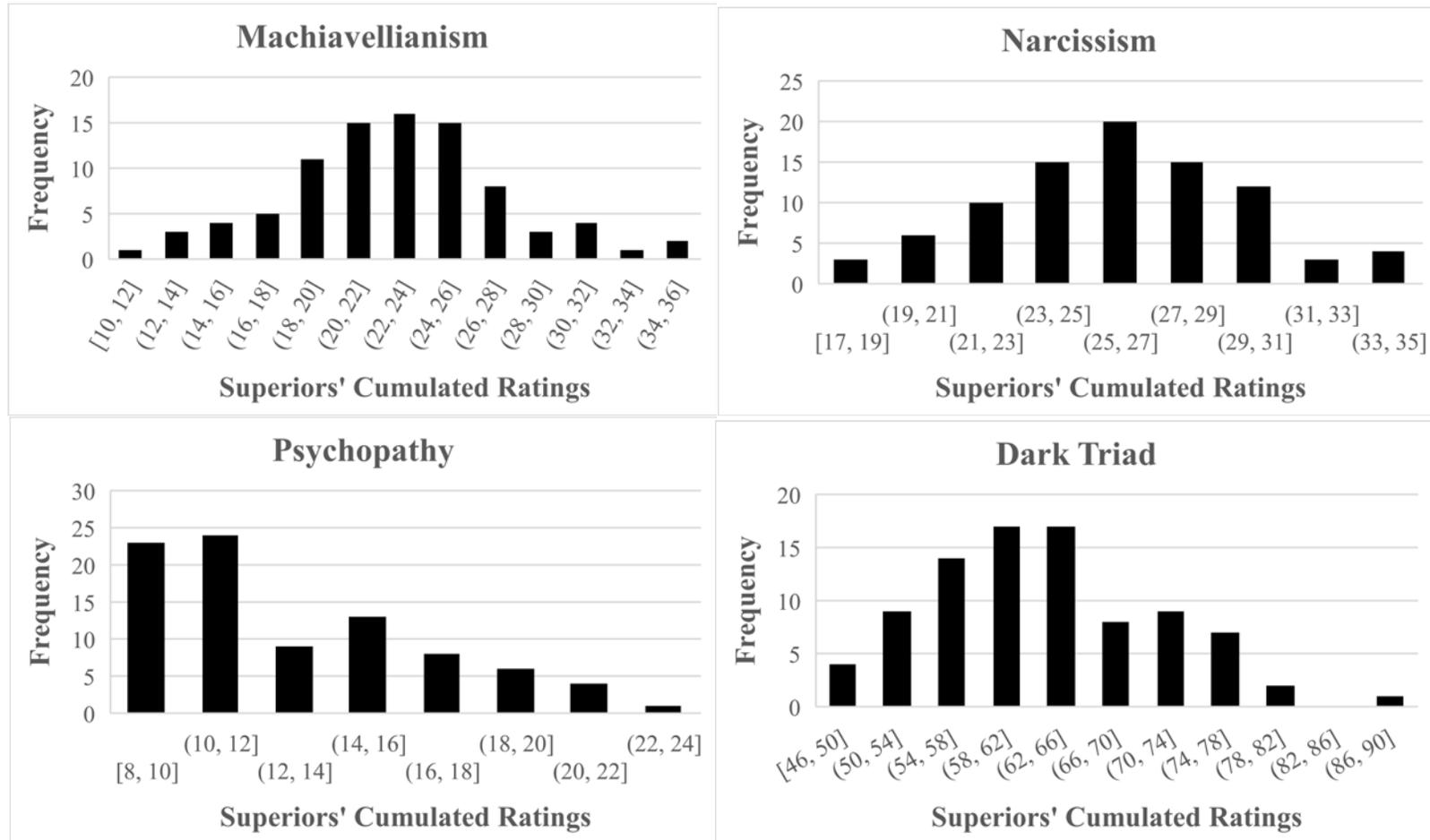


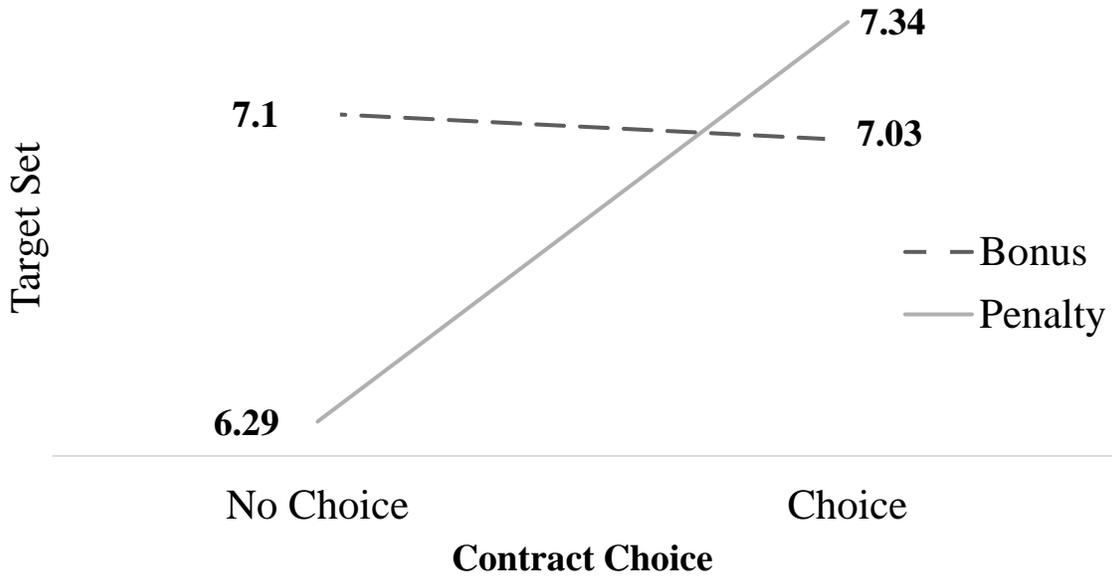
FIGURE 2
Frequency of Superiors' Cumulated Ratings for Each of the Individual Dark Triad Traits and Combined



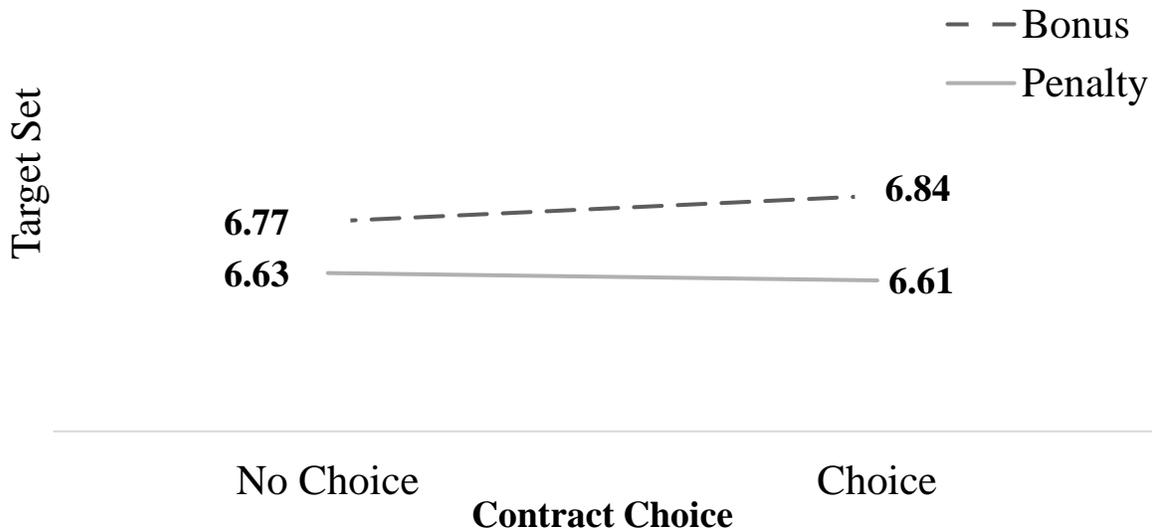
The above charts display the frequency of superiors' cumulated ratings for each individual Dark Triad trait (i.e., Machiavellianism, Narcissism, and Psychopathy) along with cumulated ratings for the combined Dark Triad measure. The numbers on the x-axis represent a range of ratings. Brackets identify that the end number is included in the frequency and parentheses identify that the end number is not included in the frequency. These ratings are in response to the Short Dark Triad Scale (SD3) shown on Appendix B.

FIGURE 3
Targets set by Low and High Dark Triad Superiorsⁱ by
Subordinates' Contract Frame and Choice

Panel A: Targets Set by Low Dark Triad Superiors



Panel B: Targets Set by High Dark Triad Superiors



ⁱ We cumulate the responses to the SD3 and use a median-split to characterize participants as high and low Dark Triad superiors. Those at or above the median are classified as high Dark Triad, with those below the median classified as low Dark Triad.

TABLE 1
Targets set by Subordinates' Contract Frame and Choice

Panel A: Cell Means (Standard Deviations) of Targets Set by Superiors

	Bonus	Penalty	Total
No Choice	7.08% (1.53) N = 78	6.58% (1.41) N = 76	6.83% (1.49) N = 154
Choice	6.86% (1.42) N = 87	6.88% (1.67) N = 84	6.87% (1.54) N = 171
Total	6.97% (1.47) N = 165	6.73% (1.56) N = 160	6.85% (1.52) N = 325

Panel B: General Linear Model: Effect of *ContractFrame* and *Choice* on Targets Set by Superiors

IV	Prediction	Coefficient	t-statistic	p-value
Intercept		6.70	34.21	0.00
Contract Frame	-	-0.57	-2.40	0.01
Choice		-0.25	-1.09	0.28
Frame x Choice	+	0.61	1.86	0.03
Gender		0.65	3.80	0.00

Bolded p-values are one-tailed.

ContractFrame is a dichotomous variable coded 1 for penalty contract, and 0 for bonus contract. *Choice* is a dichotomous variable coded as 1 if the subordinate's choice of contract is salient to the superior, and 0 otherwise.

Gender is a dichotomous variable coded 1 if male, and 0 if female.

TABLE 2
General Linear Model:
Effect of *ContractFrame*, *Choice*, and *Dark Triad* on Targets set by Superiors

	Coefficient	t-statistic	p-value
Intercept	6.75	24.90	0.00
Contract Frame	-0.87	-2.33	0.01
Contract Choice	-0.14	-0.37	0.71
Dark Triad	-0.41	-1.12	0.27
Gender	0.67	3.45	<0.01
Contract Frame × Contract Choice	1.26	2.40	<0.01
Contract Frame × Dark Triad	0.58	1.10	0.28
Contract Choice × Dark Triad	0.20	0.39	0.70
Frame × Choice × Dark Triad	-1.20	-1.63	0.05

Bolded p-values are one-tailed.

Contract Frame is a dichotomous variable coded 1 for penalty contract, and 0 for bonus contract.
Choice is a dichotomous variable coded as 1 if the subordinate's choice of contract is salient to the superior, and 0 otherwise.

DarkTriad is a dichotomous variable coded as 1 if the cumulated score is at or above the median (high Dark Triad), and 0 otherwise (low Dark Triad).

Gender is a dichotomous variable coded as 1 if male, and 0 if female.

TABLE 3
General Linear Model: Effect of *ContractFrame* and *Choice* on Targets by Dark Triad

Panel A: Low Dark Triad Superiors (below the median, n = 125)

IV	Coefficient	t-statistic	p-value
Intercept	6.68	22.24	0.00
Contract Frame	-0.88	-2.25	0.03
Choice	-0.15	-0.39	0.70
Frame x Choice	1.29	2.33	0.02
Gender	0.79	2.85	0.01

Panel B: High Dark Triad Superiors (at or above the median, n = 131)

IV	Coefficient	t-statistic	p-value
Intercept	6.43	21.00	0.00
Contract Frame	-0.26	-0.71	0.48
Choice	0.06	0.18	0.86
Frame x Choice	0.03	0.07	0.95
Gender	0.53	1.95	0.05

All p-values are two-tailed.

ContractFrame is a dichotomous variable coded 1 for penalty contract, and 0 for bonus contract. *Choice* is a dichotomous variable coded as 1 if the subordinate's choice of contract is salient to the superior, and 0 otherwise.

Gender is a dichotomous variable coded 1 if male, and 0 if female.

TABLE 4
Simple Effects of Targets Set by Low and High Dark Triad Superiors

Panel A: : Simple Effects for Target for Low Dark Triad (n=125)

Comparison	Contrast		
	Value	t-statistic	p-value
Bonus/No Choice vs. Bonus/Choice	-0.21	-0.55	0.59
Bonus/No Choice vs. Penalty/No Choice	0.86	2.18	0.03
Bonus/No Choice vs. Penalty/Choice	0.11	0.29	0.78
Bonus/Choice vs. Penalty/No Choice	1.07	2.70	0.01
Bonus/Choice vs. Penalty/Choice	0.32	0.81	0.42
Penalty/No Choice vs. Penalty/Choice	-0.75	-1.82	0.07

Panel B: Simple Effects for Target for High Dark Triad (n=131)

Comparison	Contrast		
	Value	t-statistic	p-value
Bonus/No Choice vs. Bonus/Choice	0.14	0.39	0.70
Bonus/No Choice vs. Penalty/No Choice	0.11	0.30	0.77
Bonus/No Choice vs. Penalty/Choice	-0.08	-0.22	0.83
Bonus/Choice vs. Penalty/No Choice	-0.03	-0.08	0.94
Bonus/Choice vs. Penalty/Choice	-0.21	-0.63	0.53
Penalty/No Choice vs. Penalty/Choice	-0.19	-0.53	0.60

All p-values are two-tailed.
