

When do stretch goals, outcome framing, and incentive structures lead to unintended consequences? Tradeoffs between task performance and ethical behavior.

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Abstract

Hundreds of studies over the past 50 years have demonstrated that setting specific, challenging goals motivates employees to exert greater effort in their jobs (Locke & Latham, 2002).

However, recent literature has suggested that goal-setting may have unintended consequences of also motivating unethical behavior (Ordóñez, Schweitzer, Galinsky, & Bazerman, 2009). The present study explores these consequences in the context of other features of goal-setting in organizations, namely how goals are framed and how goals are rewarded. The tradeoff between performance and ethical behavior in these circumstances is also explored. A sample of undergraduate studies were given math problems to complete, in which they were also provided an opportunity to cheat. Findings demonstrate that when goals rewarded with piece-rate incentives are framed as a loss, performance increased, though unethical behavior increased as well. Implications for how organizations should consider setting and rewarding goals is discussed.

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In 2016, Wells Fargo made headlines when their employees opened over two million bank accounts on behalf of customers without their permission. Executives initially tried to downplay the magnitude of these issues by suggesting only “a few bad apples” were to blame. Recently however, investigators concluded that these issues were too pervasive throughout the company to have been caused by only a handful of individuals. Rather, these investigators argued, the use of aggressive sales goals linked with financial incentives created a toxic corporate culture at Wells Fargo in which professional misconduct was encouraged and rewarded (Tayan, 2019).

This opening example represents just one instance in a long line of corporate scandals that appear to have resulted from similar workplace conditions. Other examples include the Ford Pinto deaths in the 1970s, Sears, Roebuck and Company’s unethical sales practices in the early 1990s, and perhaps most famously, Enron’s implosion in the early 2000s. These scandals share a common feature—namely, executives linked monetary incentives (e.g., lump sum bonuses, promotions) to the achievement of specific, aggressive goals. In light of these examples, a natural question emerges: If high-performance goals paired with financial incentives can increase unethical behavior, why do so many organizations continue using this strategy to motivate performance? The answer is because such goals also tend to increase performance.

The topic of goal-setting has received considerable scholarly attention over the last 50 years as a tool for improving employee performance. Indeed, hundreds of studies have now demonstrated the efficacy of goal-setting theory, which suggests that setting specific, challenging goals motivates employees to exert greater effort in their jobs (Locke & Latham, 2019), resulting

in enhanced organizational performance (Pritchard, Jones, Roth, Stuebing, & Ekeberg, 1988). However, the relationship between goal-setting and non-performance-related outcomes has received very little attention. In recent years, scholars of workplace psychology have called for investigations into the potential side effects, or unintended consequences, of goal-setting (Ordóñez, Schweitzer, Galinsky, & Bazerman, 2009). Our study attempts to answer this call by investigating the cause-and-effect relationships among incentive characteristics and unethical behavior (see also Schweitzer, Ordóñez, & Douma, 2004). To our knowledge, no prior work has explicitly examined the potentially unique interplay between different types of incentive structures and how these incentives are framed. In addition, the proposed study will uniquely contribute to the literature by examining simultaneously task performance and unethical behavior in the presence of these situational factors.

The overarching objective of the present study is to shed light on two questions: 1) What characteristics of higher performance goals and their associated rewards increase the probability that people will behave unethically to achieve them? and 2) How might higher performance goals and incentives setup a potential tradeoff relationship between task performance and ethical behavior? To begin answering these questions, we conducted an experiment investigating the effects of outcome framing and incentive structure on task performance and the misreporting of task performance for financial gain (i.e., cheating). This study informs our understanding of the conditions under which goals and incentives motivate unethical behavior, as well as increasing our understanding about the potential tradeoff relationship between task performance and ethical behavior. In the following sections, we will first review the relevant theories and literature that support our predicted effects for each of the independent variables on both task performance and unethical behavior.

Task Performance

Task performance is one of the most studied criterion variables in workplace psychology, which makes sense considering its ramifications on a vast array of organizational functions. Selection systems are designed to predict future performance, while promotions, dismissals, training eligibility, and compensation decisions are usually based on performance. A number of variables that have been associated with performance include stress (Driskell, Driskell, & Salas, 2014), rudeness (Riskin et al., 2015), workplace ostracism (Howard, Cogswell, & Smith, 2019) and some job attitudes (Judge, Weiss, Kammeyer-Mueller, & Hulin, 2017). Below, we outline three additional predictors of task performance: goal difficulty, outcome framing, and incentive structure.

Goal Difficulty

Employees given difficult goals to achieve tend to perform better than employees given easy or vague goals like “do your best” (Latham & Locke, 2006; Locke & Latham, 2002, 2006, 2019; Locke, Shaw, Saari, & Latham, 1981). For example, individuals instructed to complete 18 out of 20 questions (hard goal) after reading a passage subsequently answered more questions correctly than individuals instructed to complete only 5 out of 20 (easy goal) and individual instructed to just “do your best” (LaPorte & Nath, 1976). The consistency of this finding contributed to the development of goal-setting theory which suggests that there is a positive linear relationship (to a point) between goal difficulty and performance (Locke & Latham, 2002). An early meta-analysis with 49 studies found strong support for the relationship between hard goals on performance, compared to easy goals, and for the relationship between specific hard goals and performance, compared to general or no goals (Mento, Steel, & Karren, 1987). In a more recent meta-analysis, Epton, Currie, and Armitage (2017) examined 141 studies on goal-

setting, finding a unique effect of goal-setting on various behavior changes, where difficult goals were significantly different from both easy goals and moderate goals (for more, see Kleingeld, van Mierlo, & Arends, 2011; Tubbs, 1986).

Difficult goals, when specific, provide an objective measure of what to strive towards and highlight a discrepancy between present performance and desired performance, creating a constructive disconnect that motivates higher performance (Latham & Locke, 2006). Goals also direct individuals' attention towards goal-relevant activities and away from distractions, while also energizing individuals to exert more effort for longer towards attaining the goal (Barsky, 2008; Locke & Latham, 2002). However, improbably difficult goals can be demoralizing for individuals, who may not even try to achieve the goal at all (Locke & Latham, 2019), consequently decreasing performance (Epton et al., 2017). In the present effort, we compare difficult goals with moderate goals, as these are probably the more common difficulty levels for goals given in organizations. Thus, in line with goal-setting theory, we predict:

Hypothesis 1: Individuals given difficult goals will perform better on tasks than individuals given moderate goals.

Outcome Framing

Prospect theory (Kahneman & Tversky, 1979) posits that individuals weigh potential losses more than potential gains. This manifests in a loss-aversion, whereby individuals invest resources into protecting something they might lose more so than into trying to gain that same thing if they do not have it yet. Thus, prospect theory would predict that employees will presumably work harder and perform better when goals are presented as a loss framing over a gain framing. For example, employees who believe they already have their end-of-year bonus,

but will lose it if they do not perform at a certain level, will perform better than employees who believe they have yet to earn the bonus.

A number of studies support prospect theory's influence on performance. In a study of the effects of framing on motivation, Goldsmith and Dhar (2013) found that individuals informed that they will lose money for each anagram they fail to unscramble (loss framing) persisted longer in trying to solve unsolvable anagrams compared to individuals informed they will gain money for each anagram they solve (gain framing). Chon, Thompson, and Reber (2018) illustrated across two studies how loss framing led to higher levels of implicit skill performance compared to gain framing. Using a sample of employees across a wide range of occupations, organizations, hierarchical levels, and earnings, Merriman and Deckop (2007) demonstrated that the more employees perceive their variable pay as a loss, the more effort they exert at work and the higher performance ratings they receive. Thus, a loss-framing appears to activate tendencies towards loss aversion that lead to enhanced task performance. Therefore, in-line with prospect theory, we predict:

Hypothesis 2: Individuals given a loss outcome framing will perform better on tasks than individuals given a gain outcome framing.

Incentive Structure

Organizations often incentive employees to perform better by offering monetary payments in exchange for high performance, known as a pay-for-performance (PFP) system (Gerhart, Rynes, & Fulmer, 2009; Sturman, Trevor, Boudreau, & Gerhart, 2003). This technique has ample empirical support for its effectiveness (Nyberg, Pieper, & Trevor, 2016; Park & Sturman, 2016). For instance, meta-analyses conclude that there is a positive relationship between monetary incentives and employee effort and performance (Guzzo, Jette, & Katzell,

1985; Jenkins, Mitra, Gupta, & Shaw, 1998), while lab studies have demonstrated PFP systems leads to significantly higher productivity than a fixed salary (Bailey, Brown, & Cocco, 1998; Cadsby, Song, & Tapon, 2007; Fessler, 2003).

In this paper, we differentiate between two common types of pay-for-performance structures: piece-rate (or individual) incentives and lump sum (or bonus, contingent-pay, or quota) incentives. A piece-rate incentive structure refers to rewarding the completion of a unit of work at a specific amount of pay per unit (e.g., \$5 per widget), whereas a lump sum incentive structure pays out a total amount when a specific goal has been achieved (Gerhart et al., 2009). Piece-rate incentives may be awarded independent of whether goals are achieved, while lump sum incentives depend on whether or not a specific goal is achieved.

A meta-analysis (Bonner, Hastie, Sprinkle, & Young, 2000) found that lump sum incentive systems outperform piece-rate incentive systems. This may be because lump sum incentives, as “all-or-nothing” rewards, have an inherently difficult goal. Based on goal-setting theory, difficult goals lead to greater task performance than non-difficult goals (Locke & Latham, 2019). Conversely, piece-rate incentive structures contain mini goals, one for each unit. Since these mini goals are easily obtained, they will not have the same motivating effect as the inherently difficult goals in lump sum incentives. Therefore, in-line with the literature on pay-for-performance systems, we predict:

Hypothesis 3: Individuals offered a lump sum payment structure will exhibit higher task performance than individuals offered a piece-rate payment structure.

Potential Interaction Effects

Goal difficulty and outcome framing. Goal-setting theory would predict that conditions with more difficult goals would perform better than those with less difficult goals (Locke &

Latham, 2019). Prospect theory would predict that conditions with a loss framing would perform better than those with a gain framing (Kahneman & Tversky, 1979). Conditions that include both factors would presumably just increase those effects. Thus, when the outcomes of difficult goals are framed as a loss, performance will increase compared to when outcomes are framed as a gain, due to individuals' propensity to weigh losses more than gains (Kahneman & Tversky, 1979). In that scenario, performance will also increase compared to moderate goal conditions, due to the trend that difficult goals motivate higher performance over moderate goals (Epton et al., 2017). Therefore, we do not predict an interactive effect between goal difficulty and outcome framing and instead expect to find effects similar to the main effects hypothesized earlier:

Hypothesis 4: Individuals given difficult goals in a loss outcome framing will perform better on tasks than individuals in other conditions.

Goal difficulty and incentive structure. The question of how incentives should be structured and linked to goal achievement has received surprisingly little research attention. Some research suggests that individuals given piece-rate incentives will outperform individuals given lump sum incentives when goals are highly difficult (Lee, Locke, & Phan, 1997; Mowen, Middlemist, & Luther, 1981). Expanding on these findings, Wright (1992) found that the lower performance in the lump sum conditions compared to the piece-rate conditions with difficult goals was due to a lack of goal commitment. He theorizes that many individuals offered a lump sum reward for a difficult goal will decrease their effort and attention towards attaining that goal because of the potential for negative consequences for failure (not receiving the bonus). Alternatively, Lee, Locke, and Phan (1997) demonstrated that self-efficacy mediated the relationship between lump sum incentives and difficult goals, suggesting that individuals who do not believe they can achieve the goals will be unaffected by the rewards.

Thus, individuals will likely reject and not commit to difficult goals paired with lump sum incentives because of the challenge of receiving the incentive. However, individuals offered a piece-rate incentive, even for difficult goals, will increase their effort because failure has fewer negative consequences; they still receive incentives for performing no matter the goal. Nevertheless, when goals are moderately difficult, individuals incentivized with lump sum bonuses will have the self-efficacy or commitment to achieve those easier goals, neutralizing the performance increase of individuals with piece-meal incentives. Therefore, we predict:

Hypothesis 5: Lump sum incentives will suppress the effects of goal difficulty on performance, where individuals given difficult goals and offered a lump sum incentive will perform worse than individuals in other conditions.

Outcome framing and incentive structure. Prospect theory would predict that any loss framing will increase performance due to individuals' stronger aversion to loss over gains (Kahneman & Tversky, 1979). Piece-rate incentives may amplify those performance effects, since it is relatively easy to protect those individual losses (Wright, 1992). However, lump sum incentives may seem too difficult to protect, reducing motivation to perform as well (Lee et al., 1997; Wright, 1992). In a gain framing though, without the activation of loss-aversion, piece-rate incentives would not inspire higher performance more than lump sum incentives. Therefore, we predict:

Hypothesis 6: Piece-rate incentives will amplify the effects of outcome framing on performance, where individuals given a piece-rate incentive in a loss framing will perform better than individuals in other conditions.

Goal difficulty, outcome framing, and incentive structure. To the best of our knowledge, we could not find any studies specifically examining goal difficulty, outcome

framing, and the incentive structures of interest. This potential three-way interaction is difficult to predict. Would difficult goals in a gain framing with a lump sum incentive structure condition have a higher performance level than moderate goals in a loss framing with a piece-rate incentive structure? While goal-setting theory would advocate for higher performance when goals are difficult (Locke & Latham, 2019), prospect theory (Kahneman & Tversky, 1979) and the literature on incentive structures (Wright, 1992) suggest higher performance in the second condition when goals are framed as a loss with a piece-rate incentive structure. Given these various potential outcomes, we ask the following research question:

Research Question 1: How might goal difficulty, outcome framing, and incentive structures interact to influence task performance?

Unethical Behavior

Like performance, ethics also has a robust literature, with important social, legal, and financial ramifications for individual, organizations, and society. On a global level, the unethical behavior of financial intuitions in the housing market pre-2008 led to the collapse of the world economy, now known as the Great Recession (Bishop, 2013). More narrowly, organizations committed to ethical behaviors towards stakeholders and emphasize ethics perform financially better than those that do not (Verschoor, 1998). But even within organizations, employees' perceptions of the organization's ethical values are related to justice climates (Schminke, Arnaud, & Taylor, 2015), employees' counterproductive work behaviors (Treviño, Weaver, & Reynolds, 2006) and citizenship behaviors (Sharma, 2018), and individual job performance (Sharma, Borna, & Stearns, 2009). Thus, a greater understanding of ethical behavior in organizations is needed.

We define unethical behavior similarly to how Jones (1991) defines unethical decisions, that is as behavior that is morally unacceptable to the larger community. Within organizations, this can take the form of lying or cheating by misrepresenting the number of hours worked. However, we take the approach that those who engage in unethical behavior are often not inherently bad (Bersoff, 2001). Instead, we try to identify the contextual factors that can interfere with individuals' moral reasoning, increasing their unethical behavior. In the following section, we review how the predictors of task performance outlined in the previous section, goal difficulty, outcome framing, and incentive structure, may also serve as antecedents of unethical behavior in organization.

Goal Difficulty

As mentioned earlier, researchers have started to call for more studies exploring the unintended consequences of goal-setting, specifically in regard to unethical behavior. In one of the first studies on these unintended consequences of goal-setting, Schweitzer, Ordóñez, and Douma (2004) gave participants completing an anagram task either a do-your-best goal or a specific, challenging goal to create 9 words. The participants given specific, challenging goals were more likely to overstate their performance than more than vague goals. The authors suggest their findings support Lewicki's (1983) model of deception, which states that people balance the costs and benefits of engaging in unethical behavior but will often underestimate the cost of using deception. Coupled with the psychological rewards associated with achieving a goal (Bandura, 1991), the balance may tip towards engaging in unethical behavior.

Barsky (2008) proposed a theoretical model linking goal setting to unethical behavior through ethical recognition and moral disengagement that may underpin how goal difficulty specifically may impact ethical behavior. Ethical recognition refers to when individuals identify

that a specific situation presents a moral problem (Jones, 1991). Since goal-setting increases performance by diverting attention towards completing the goal (Locke & Latham, 2002), Barsky (2008) argues that goals simultaneously divert attention away from the ethical considerations of achieving that goal. More difficult goals would presumably divert more attention. Moral disengagement refers to when individuals disengage from their regulatory processes that would stop them from behaving unethically via rationalizing (Bandura, 1999). Individuals given goals may justify their unethical behaviors to achieve the goal or they may displace the responsibility to behave ethically by denying they have agency to take other actions (Barsky, 2008). Moderate or easy goals however may not provide a sufficient enough justification for behaving unethically.

Building off Barsky's (2008) model, Ordóñez and Welsh (2015) posit goal setting can deplete individuals' resources through the increased attention, motivation, effort, and persistence to reach the goals. Such energy depletion reduces self-regulation, removing individuals' barriers to lie or cheat (Mead, Baumeister, Gino, Schweitzer, & Ariely, 2009). As goals get more difficult, more energy is expended, increasing unethical behavior (Welsh & Ordóñez, 2014). In the present effort, we compare difficult goals with moderate goals, as these are probably the more common difficulty levels for goals given in organizations. Therefore, in-line with these theories and empirical evidence, we predict:

Hypothesis 7: Individuals given difficult goals will engage in more cheating behavior than individuals given moderate goals.

Outcome Framing

Kahneman and Tversky's (1979) prospect theory proposes that individuals give more weight to losses than to gains, which can impact their risk-taking behavior. Consequently,

individuals will take greater risks in situations where they may lose something they have over situations where they have the potential to gain something they do not have (Kühberger, 1998). One example of a risk an individual might take in such a scenario may be cheating behavior. Alternatively, Cameron and Miller (2009) suggest that loss framing is so powerful because it highlights a discrepancy between how much individuals think they deserve and how much they are about to earn. Since individuals believe that it would be unfair to receive what they already deserve, individuals will turn to dishonest behavior to address this imbalance.

Across three experiments, Kern and Chugh (2009) empirically showed that individuals would hypothetically behave unethically, like lying or gathering insider information, when presented a loss framing over a gain framing. Schindler and Ptattheicher (2017) found that individuals actually engaged in dishonest behavior in loss framing games over gain framing games. Similarly, Graham, Ziegert, and Capitano (2015) found that employees were more willing to engage in unethical pro-organizational behavior when inspirational and charismatic transactional leaders used a loss framing in their messages but not in a gain framing. Therefore, in-line with prospect theory, we predict:

Hypothesis 8: Individuals given a loss outcome framing will engage in more cheating behavior than individuals given a gain outcome framing.

Incentive Structure

Organizations' compensation systems are key influences on employees' ethical behavior (James Jr., 2000). A number of studies suggest that pay-for-performance systems in general are associated with more unethical behavior over fixed payment under certain conditions (Cadsby et al., 2007; Chng, Rodgers, Shih, & Song, 2012; Gill, Prowse, & Vlassopoulos, 2013). No prior studies could be identified that have investigated the relationship between the specific incentive

structures of piece-rate and lump sum with unethical behavior. Nevertheless, it is important to explore those incentive systems effects on unethical behavior because they are implemented in many organizations.

Some evidence may shed light on this question. Mazar, Amir, and Ariely (2008) argue that individuals will cheat to help themselves, but only up to the point where they would not have to change their self-perception that they are an honest person. Relatedly, individuals who fail to reach their goals by only a small amount are more likely to overstate their performance compared to people who fail to reach their goals by a large amount (Schweitzer et al., 2004). While this may manifest in piece-rate incentive structures, where each piece can be considered a mini-goal that individuals are close to achieving and will not require a huge lie to reach it, individuals can also be close to their goals in lump sum incentives by only a small amount. In fact, Jensen (2003) proposes an economic argument that the use of a bonus compensation system (lump sum) would increase unethical behavior in managers more than the use of a linear compensation system (piece-rate). He theorizes that managers close to attaining their goal will be motivated to do anything they can to get their bonus, even lie, given that the reward is all-or-nothing. Piece-rate incentives, on the other hand, still allocate rewards even if the goal is not reached, reducing the need to engage in unethical behavior.

Thus, a lump sum structure may more likely increase unethical behavior over a piece-rate structure. A recent meta-analysis demonstrated that larger rewards had higher rates of dishonest behavior, though only in one of the four laboratory paradigms examined (Gerlach, Teodorescu, & Hertwig, 2019). Since a single lump sum incentive has a higher reward value than a single piece-rate incentive, more unethical behavior would be expected in lump sum incentives. Additionally, lump sum incentives by default incorporate more difficult goals to achieve than

piece-rate incentives, which should lead to more unethical behavior (Barsky, 2008; Ordóñez & Welsh, 2015; Schweitzer et al., 2004; Welsh & Ordóñez, 2014). Thus, this evidence suggests that lump sum incentives may lead to unethical behavior more than piece-rate incentives. Therefore, due to the strength of these arguments, we predict:

Hypothesis 9: Individuals given lump sum incentive structure will engage in more cheating behavior than individuals given a piece-rate incentive structure.

Potential Interaction Effects

Goal difficulty and outcome framing. The evidence on goal-setting's effect on unethical behavior would predict that conditions with more difficult goals would be associated with more unethical behavior than those with less difficult goals (Ordóñez et al., 2009; Ordóñez & Welsh, 2015; Schweitzer et al., 2004; Welsh & Ordóñez, 2014). Conditions that include both factors would presumably increase those effects. Thus, when the outcomes of difficult goals are framed as a loss, unethical behavior will increase compared to when outcomes are framed as a gain, due to individuals' propensity to weigh losses more than gains and take more risks in response (Kahneman & Tversky, 1979; Kühberger, 1998). In that scenario, performance will also increase compared to moderate goal conditions, due to the relationship between difficult goals and cheating behavior (Schweitzer et al., 2004). Therefore, we do not predict an interactive effect between goal difficulty and outcome framing and instead expect to find effects similar to the main effects hypothesized earlier:

Hypothesis 10: Individuals given difficult goals in a loss outcome framing will engage in more cheating behavior than individuals in other conditions.

Goal difficulty and incentive structure. Wright (1992) found that goal difficulty was negatively related to goal commitment in bonus conditions, but not in piece-rate conditions. He

suggests that in bonus incentive structures, increasing effort towards achieving the goal does not necessarily result in the bonus because the goal has not been reached yet. Thus, individuals will not commit to the goal. In piece-rate conditions, individuals will commit to the goal because failure has less of a consequence. While Wright (1992) used goal commitment to explain the relationship between goal difficulty, incentive structures, and performance, the same explanation may explain the relationship between goal difficulty, incentive structures, and unethical behavior. As Barsky (2008) proposes, goal commitment will moderate the relationship between goal attributes like difficulty with unethical behavior such that goal difficulty will impact unethical behavior only if an individual is committed to that goal.

However, individuals given piece-rate incentives, regardless of the goal difficulty, still have an incentive to perform well, and consequently to cheat, since every unit of performance is rewarded. Since individuals are more likely to behave unethically when they are close to achieving their goal (Mazar et al., 2008; Schweitzer et al., 2004), when given a piece-rate incentive, individuals may more likely cheat to achieve their personal goal based on how much money they intend to earn. Therefore, we predict:

Hypothesis 11: Lump sum incentives will suppress the effects of goal difficulty on cheating behavior, where individuals given difficult goals and offered a lump sum incentive will engage in less cheating behavior than individuals in other conditions.

Outcome framing and incentive structure. Prospect theory would predict that any loss framing will increase unethical behavior due to individuals' propensity to take risks in response in loss over gain framings (Kühberger, 1998). Piece-rate incentives would potentially amplify those effects, since individuals will feel more comfortable acting unethically for small units (Mazar et al., 2008; Schweitzer et al., 2004). However lump sum incentives may seem too

difficult to protect, reducing motivation to behave unethically to protect them (Lee et al., 1997; Wright, 1992). In a gain framing though, piece-rate incentives would not motivate more unethical behavior than lump sum incentives. Therefore, we predict:

Hypothesis 12: Piece-rate incentives will amplify the effects of outcome framing on performance, where individuals given a piece-rate incentive in a loss framing will engage in more unethical behaviors than individuals in other conditions.

Goal difficulty, outcome framing, and incentive structure. To the best of our knowledge, we could not find any studies specifically examining goal difficulty, outcome framing, and the incentive structures of interest. This potential three-way interaction is difficult to predict. Would difficult goals in a gain framing with a lump sum payment structure condition be associated with higher unethical behavior than moderate goals in a loss framing with a piece-rate incentive structure? While the recent evidence from the goal-setting literature would advocate for more unethical behavior when goals are difficult (Ordóñez et al., 2009; Schweitzer et al., 2004), prospect theory (Kahneman & Tversky, 1979; Kühberger, 1998) and the literature on incentive structures (Wright, 1992) suggest more unethical behavior in the second condition when goals are framed as a loss with a piece-rate incentive structure. Given these various potential outcomes, we ask the following research question:

Research Question 2: How might goal difficulty, outcome framing, and incentive structures interact to influence unethical behavior?

Methods

Participants

Our participants were 201 undergraduate students (50.7% female) enrolled in Psychology and Management courses at a college in the Northeast region of the United States. The mean age

of the sample was 20.83 ($SD = 4.33$) with a mean Grade Point Average (GPA) of 3.26 ($SD = 0.5$). The most popular majors from the sample were business majors (78.1%) and psychology majors (10.9%). The most commonly self-identified race of the sample were Asian Americans (43.3%), followed by Hispanic or Latino (23.4%), White or European American (14.4%), and Black or African American (9.0%). We recruited these participants from an undergraduate participant pool in exchange for monetary compensation. Participants were initially told that they had the opportunity to earn up to \$10 contingent upon their performance. However, regardless of how the participants performed, everyone received full compensation at the end of the study (\$10). We received IRB approval prior to initiating this study.

General Procedures

Trained research assistants administered the study materials. Upon arriving in the lab, participants were asked to verify that they volunteered up for the study and arrived for the correct timeslot. After reading the informed consent information, all participants in that time slot were randomly assigned to one of the eight experimental conditions by being handed a pre-labeled packet. They first completed demographics, need for cognition, and Big Five personality scales. These measures were included in the survey to help assess and control for pre-existing individual differences among participants on traits that have been found to be associated with task performance and unethical behavior (O'Boyle, Forsyth, Banks, & McDaniel, 2012). When participants completed this section, they arrived at a page that instructed them to stop and wait for further directions. Next, research assistants prompted participants to complete a two-minute practice exercise consisting of five math matrix problems (i.e., matrices). The purpose of this practice exercise is to assess participants' pre-existing differences in matrix problem-solving skills. Scores for this practice exercise were used as a covariate control measure in our analyses.

The practice exercise also served as a low-stakes “warm up” to help participants prepare for the experimental task. Next, participants had five minutes to complete the experimental task which involved working on a new set of 20 matrices with the opportunity to earn (or lose, depending on the condition) up to \$10 based on their performance. Upon completion of the math task, research assistants debriefed the participants and awarded them the full incentive pay, regardless of their performance.

Experimental Task

The experimental task was adapted from Gino, Ayal, and Ariely (2009). This task was designed to setup a tradeoff for participants in which they have to decide if they are willing to cheat in order to earn more money. Before the task begins, participants were given a large, orange envelope that contains a study packet (i.e., demographics, need for cognition scale, Big Five, practice math task, experimental math task, and scoring sheet) and a smaller white envelope with nine one-dollar bills and four quarters (i.e., 10 dollars total). All participant materials were labelled with a unique identification number for tracking purposes. The experimental math task contains 20 matrices, each with 12 numbers comprised of an integer and two decimals (e.g., 4.32). The instructions for the task were to solve a specific number of the matrices in a five-minute period. Matrices were solved by circling the two numbers in each matrix that add up to 10.

At the conclusion of five minutes, participants were shown the answer key and instructed to score their performance using a scoring sheet. When scoring was complete, participants were instructed to discard their scoring sheet in the green recycling bin labeled “for shredding”, which was located in a corner of the lab next to an electronic paper shredder. This setup helped to create the illusion that the scoring sheets would be shredded in order to reduce perceptions of

accountability, when in fact scoring sheets were coded later by the researcher. After depositing their scoring sheet in the shredding bin, participants were responsible for counting out the money they earned and moving any unearned money into the white envelope to be returned to the research assistant. Once all participants completed the money counting task, research assistants collected the white envelopes with any remaining, unearned money. During collection of white envelopes, research assistants documented the amount of money the participants reportedly earned. Once the amount of money remaining in each white envelope was counted and recorded by research assistants, the remaining money in these envelopes was returned to participants followed by debriefing procedures. Thus, all participants who completed the experiment received \$10, even if they reported earning less.

Manipulations

The study used a 2x2x2 between-subjects design consisting of three manipulations and eight conditions. These manipulations were pilot tested in advance to ensure appropriate strength and comprehension by participants. The first manipulation, goal difficulty, was manipulated in the instructions of the experimental task by setting the goal that participants solve at least 14 problems correctly (difficult goal) or at least 10 problems correctly (moderate goal). The number of problems for difficult and moderate were based off of pilot testing, where the mean for problems correct was about 10 ($SD = 4$). As determined in previous literature, difficult goals were set at least one standard deviation above baseline performance while moderate goals were set between that and baseline performance (Epton et al., 2017; Kleingeld et al., 2011). The second manipulation, gain or loss outcome framing, occurred by explaining to participants that they will either receive or lose money based on correct or incorrect solutions. The third manipulation, piece-rate or lump sum incentive structures, was implemented by explaining to

participants that they will receive +\$.50 per correct solution (or -\$.50 per incorrect solution) or receive the maximum amount of \$10 if they achieve their goal (or \$0 if they fail to achieve their goal).

Covariates

Math skill. Participants' preexisting math skills were controlled for by counting the number of math problems they answered correctly on the 5 practice set problems. Other studies that have used math problems for their measure of performance have also included practice problems (Bavelas & Lee, 1978). By controlling for participants' prior math skills, we can ensure the effects on task performance are due to the manipulations and not participants' own skills. There were 5 practice problems, so scores could range from 0 to 5.

Need for cognition. Need for cognition (NFC) is an individual's tendency to engage in and enjoy effortful cognitive endeavors (Cacioppo, Petty, Feinstein, & Jarvis, 1996). Individuals high in NFC are more likely to have a positive attitude towards complexity and invest more effort on solving problems (Coutinho, Wiemer-Hastings, Skowronski, & Britt, 2005; Watts, Steele, & Song, 2017). It is typically measured by the 18-item NFC Scale (Cacioppo, Petty, & Kao, 1984), which includes items like "Thinking is not my idea of fun" and "I really enjoy a task that involves coming up with new solutions to problems." Each item was rated using a 5-point Likert-type format ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores indicate a greater level of NFC. The internal consistency coefficient for NFC was 0.83 in this study. Evidence for construct validity of NFC scores and its relationship to complex problem solving is provided by Cacioppo, Petty, Feinstein, and Jarvis (1996) and its relationship to ethical decision-making by Watts, Ness, Steele, and Mumford (2018).

Personality. The Mini-IPIP was used to assess the Big Five personality trait of Extraversion¹. This measure is a 4-item short form of the 50-item International Personality Item Pool—Five-Factor Model measure (Donnellan, Oswald, Baird, & Lucas, 2006; Goldberg, 1999). Each item is a phrase describing a behavior (e.g., ‘I am the life of the party’). Participants responded to the items using a 5-point Likert-type scale format ranging from 1 (strongly disagree) to 5 (strongly agree). Only Extraversion was used in the analysis. The internal consistency coefficient for Extraversion was 0.75. Validity evidence for these scales is provided in Donnellan, Oswald, Baird, and Lucas (2006), for personality’s association with task performance is provided in Lado and Alonso (2017), and for personality’s association with unethical behavior in O’Boyle, Forsyth, Banks, and McDaniel (2012) .

Dependent Variables

Task performance. Participants’ performance on the task was calculated by counting the number of math problems they actually solved correctly on the 20 math problems, based on their response sheet.

Cheating. Cheating behavior was measured by calculating the difference between the amount of money participants should have earned (\$0.50 per correct problem), based on their task performance (see above), and the amount of money participants actually took from their money envelope.

Results

4 responses were excluded from analysis based on notes from the data collectors that those participants did not follow directions appropriately. Correlations between the independent

¹ The other four personality traits of the Big Five (conscientiousness, agreeableness, intellect/imagination, and neuroticism) were also measured as covariates, but they were not used in the analysis since they were not statistically significant.

variables, covariates, and dependent presented in Table 1. Analysis of Covariances (ANCOVA) were run for each dependent variable (task performance and cheating behavior), controlling for the statistically significant covariates. Analyses were run first with all measured covariates, though none showed significance. Then, the least statistically significant covariate was removed, and the analysis was run again. Once a statistically significant covariate was identified for one of the dependent variables, it was retained for both to allow for direct comparisons of models across dependent variables. Covariates, main effects, and interactions from the ANCOVAs were interpreted as statistically significant if they had a p -value ≤ 0.05 .

----Insert Table 1----

Task Performance

Results from a 2x2x2 ANCOVA are summarized in Table 2. Significant effects were found for the covariate math skills, $F(1, 186) = 92.80, p = .00, \eta_p^2 = .33$. The correlation between math skills and performance ($r = .56$) indicates that participants who scored higher in math skills were more likely to perform better on the task. The test yielded a significant main effect for outcome framing, $F(1, 186) = 6.53, p < .01, \eta_p^2 = .03$, where those in a loss framing completed more math problems correctly ($M = 7.76, SE = 0.34$) than those in a gain framing ($M = 6.53, SE = 0.33$), supporting Hypothesis 2. Hypotheses 1 and 3 were not supported.

---- Insert Table 2 ----

In partial support to hypothesis 4, a significant interaction effect between goal difficulty and outcome framing was found, $F(1, 186) = 7.38, p < .01, \eta_p^2 = .04$, where those given difficult goals in a loss framing performed the highest of all the conditions ($M = 8.08, SE = .47$). However, those given difficult goals in a gain framing performed the worst of all the conditions ($M = 5.59, SE = .47$), which may be the driver of the significant findings. A second interaction

supporting hypothesis 6 was found between outcome framing and incentive structure, $F(1, 186) = 4.44, p < .05, \eta_p^2 = .02$, where those in the loss framing, piece-meal incentive structure performed better ($M = 8.18, SE = .47$) than those in the other conditions. We did not find a significant effect for hypothesis 5 or for the research question about the 3-way interaction between goal difficulty, outcome framing, and incentive structure. Figures 1 and 2 present these results.

---- Insert Figure 1 ----

---- Insert Figure 2 ----

Unethical Behavior

Results from a 2x2x2 ANCOVA are also summarized in Table 2. We found significant effects for the covariate need for cognition, $F(1, 181) = 6.13, p < .05, \eta_p^2 = .03$. The correlation between need for cognition and cheating ($r = -.14$) indicates that participants who scored higher in need for cognition were less likely to cheat on the task. We also found significant effects for the covariate extraversion, $F(1, 181) = 3.81, p < .05, \eta_p^2 = .02$. The correlation between extraversion and cheating ($r = .14$) indicates that participants who scored higher in extraversion were more likely to cheat on the task. The test yielded no main effects, providing no support for Hypotheses 7-9.

In support of hypothesis 12, a significant interaction effect was found between outcome framing and incentive structure, $F(1, 181) = 9.72, p < .01, \eta_p^2 = .05$, where cheating occurred in the loss framing, piece-rate structure ($M = 0.59, SE = 0.22$), but no cheating in the gain framing, piece-rate structure nor in the loss framing, lump sum structure. Interestingly and unexpectedly, cheating also occurred in the gain framing, lump sum structure ($M = 0.74, SE = 0.21$). Figure 3 presents these results. We did not find a significant effect for the other 2-way interaction as

predicted in hypotheses 10 or 11, or for the research question regarding the 3-way interaction between goal difficulty, outcome framing, and incentive structure.

---- Insert Figure 3 ----

Discussion

Limitations

Before discussing the findings and implications of these results, a number of limitations should be noted. Most these limitations arise because the study was conducted in a laboratory setting, which limits the generalizability of the findings to actual work settings. Nevertheless, a laboratory design allows careful isolation of cause and effect relationships, the main purpose of this effort.

First, the study sample consisted of undergraduate students, typically younger than most workplace employees. However, our sample was unusually diverse in terms of race and collecting data from this convenient sample allowed us to use the lab design to determine the cause and effect relationship of interest.

Second, the task used in this study involved solving arithmetic math problems, a much simpler and contained task than the complex, multi-step tasks that many workers engage in. Despite this, the task is equivalent to many of the tasks that have been used in developing goal-setting theory (Locke & Bryan, 1969). Since this study aims to explore the unintended consequences of goal-setting, we felt it necessary to replicate the type of tasks that the literature has used.

Third, the amount of money at stake, \$10, differs significantly from the thousands of dollars in bonuses or commission employees could potentially earn. Conceivably, higher rewards may alter how individuals would react to the incentive structures presented to them. For instance,

behaving unethically to achieve higher rewards may come with a higher punishment if caught, thus impacting whether individuals behave unethically to achieve them. Nevertheless, cheating behavior has been found with similarly low incentives in previous literature and may in fact occur more often with lower values (Balasubramanian, Bennett, & Pierce, 2017; Mazar et al., 2008).

Fourth, unlike in most workplace settings, the timeframe to cheat in this study was short. Participants had just a few minutes to decide whether to cheat or not, which may not reflect the longer time-periods employees have when considering ethical decisions in real organizations. However, we theorize similar to Barsky (2008) that individuals do not consciously chose to behave unethically, but rather act in response to certain scenarios which interfere with their moral reasoning. Thus, the type of unethical behavior of interest in the current effort would not need additional time for individuals to weigh their decisions to act in such a manner. It would happen more automatically in response to the situation. Additionally, the short time frame when participants could cheat may reflect the small windows of opportunity that periodically occur in organizations.

Fifth, we designed the study to make cheating particularly effortless and seamless for participants. We did not enact any accountability processes to ensure participants did not cheating, and the procedures were clear to participants that they could get away with such behavior. Most organizations however do have systems of checks and balances that would discourage unethical behavior more so than our design. Furthermore, the study's lack of safeguards against cheating allowed us to measure this elusive phenomenon, since often individuals would refrain from cheating if they feared getting caught.

Overview of Findings

With these limitations in mind, this study makes a few major contributions to the literature on performance and unethical behavior. This study explores the interactions of goal difficulty, outcome framing, and incentive structures. None of these features of organizations were strong influences on task performance or unethical behavior. Only through their joint impact did meaningful results appear, yet most of the literature on these topics tend to discuss them in isolation. Our results suggest that more studies should ensure they explore these predictors together.

Similarly, we ask about potential tradeoffs between task performance and ethical behavior. Most of the literature on these topics tend to look at just one or the other. By incorporating both dependent variables in our design, we were able to compare how the independent variables impact both and assess whether there are scenarios where one occurs at the expense of the other. Our findings demonstrate that certain combinations of goals and incentives may encourage unintended consequences. First,

In terms of our main effect hypotheses, we could replicate only the literature on outcome framing (Chon et al., 2018; Goldsmith & Dhar, 2013; Merriman & Deckop, 2007) and found that loss framing motivates task performance, supporting hypothesis 2. Individuals are more motivated to keep something they already have than to try to gain something they do not, as prospect theory explains (Kahneman & Tversky, 1979). Thus, individuals will work harder and increase their performance in response to loss framing.

However, we did not replicate the findings from the goal-setting literature, that difficult goals will increase performance more than moderate goals (Locke & Latham, 2019) nor that they will increase unethical behavior (Schweitzer et al., 2004). This may have occurred due to the time limit imposed on the task, which has been shown to decrease the strength of the relationship

between goal difficulty and performance, since difficult goals tend to motivate persistence, which is underutilized under time pressure (Schweitzer et al., 2004). Without that motivation to perform, the motivation to behave unethically will presumably not occur either. Additionally, we explored the difference between difficult goals and moderate goals, as we considered organizations more likely to use these goals over easy goals. Nevertheless, some literature does suggest that difficult goals provide a performance enhancement over only easy goals and not moderate goals (Kleingeld et al., 2011), which may explain why we did not find that effect.

In terms of the covariates, math skill was significantly related to task performance, which makes sense given that the task involved math problems. Need for cognition was negatively related to unethical behavior, which matches with previous research which found that individuals high in need for cognition were more likely to demonstrate moral thinking (Strobel, Grass, Pohling, & Strobel, 2017; Watts et al., 2018). This is probably because individuals high in need for cognition are more likely to rely on reasoning, thinking, and problem-solving tactics to cope with issues that arise, instead of resorting to unethical behavior to solve their problems. Extraversion was also a significant covariate, positively related to unethical behavior. This may be due to extraversion's relationship to narcissism (Wang, 2017), since narcissists will use their extraverted personality to get what they want. Since narcissists tend to believe the rules do not apply to them, they are more likely to engage in unethical behavior to achieve their goals (O'Boyle et al., 2012).

In terms of interacting effect, although we found significant findings, they were often in the direction of the opposite of how we theorized or between conditions we did not theorize about. Thus, these interpretations should be considered cautiously.

First, we found in support of hypothesis 4 that difficult goals, when framed as a loss, seemed to outperform all other conditions. However, we also found that difficult goals, framed as a gain, performed worse than all other conditions. It seems that when goals become too challenging, gain framing demotivates task performance. A potential explanation for this phenomenon may be related to individuals' lower self-efficacy in the face of particularly challenging tasks (Lee et al., 1997; Wright, 1992). Without the additional motivation from loss-aversion, where individuals will try anything to keep what they already have (Kahneman & Tversky, 1979), difficult goals may lack the power to motivate higher performance. Individuals are not willing to put in the effort to achieve a difficult goal if just to gain something. They have to be motivated to keep something instead.

Second, the fear of losing incremental rewards appears to motivate higher task performance, in support of hypothesis 6, but also higher cheating, in support of hypothesis 12. This double-edged sword probably stems from loss-aversion's propensity to both motivate higher performance (Bonner et al., 2000; Chon et al., 2018) and higher risk behaviors like cheating, (Kern & Chugh, 2009; Kühberger, 1998; Schindler & Pfattheicher, 2017). Coupled with piece-rate incentives, which are easier to protect from loss than lump sums (Wright, 1992) and which are easier to justify cheating on morally, since individuals will feel more comfortable acting unethically for small units (Mazar et al., 2008; Schweitzer et al., 2004), this tradeoff between performance and ethical behavior occurs.

Finally, and somewhat unexpectedly, the anticipation of gaining lump sum rewards motivates cheating but not task performance. This finding is particularly surprising given that individuals are probably cheating for the sake of improving their performance. Since it does not, this is especially relevant for the many organizations that motivate employees by offering lump

sum bonuses when certain performance milestones are reached. These findings seem to indicate that such a reward structure may not be helping the organization's performance and may instead just motivate unethical behavior.

Implications

Our findings have important implications for organizations to consider. Setting highly challenging goals and associating their achievement with gaining a lump-sum reward is a popular tactic used in organizations that is assumed to motivate task performance. Many sales, recruiting, customer service, and quota-defined jobs all use lump-sum gain strategies for employees. Unfortunately, these appear to be the very conditions that lead to lower task performance and increase the likelihood of cheating—a lose-lose strategy. If organizations intend to continue to use these incentive structures for whatever reasons, they should consider other ways to motivate performance in addition to establishing strong safeguard against unethical behavior.

In fact, we were unable to identify an ideal arrangement of these conditions that facilitates task performance without cheating. Yet, this does not mean organizations should stop setting goals, but rather they should just be paired with interventions to mitigate any unintended consequences. For instance, these findings point to a promising strategy for motivating task performance that is currently underutilized by organizations—goals paired with piece-rate, loss-framed incentives. Yet, this approach to motivating performance should be paired with other strategies that might help to reduce the likelihood of cheating (e.g. removing the opportunity for cheating, removing the potential for rewards that are gained via cheating, etc.). One caveat is the need to pair

Future Directions

A future study could test a sample of office workers, offer a more valuable payment, and provide a longer time frame for cheating behavior to occur. Similarly, future studies can introduce more complex tasks that reflect true worker tasks as a way to test for these effects. Together, these may demonstrate findings that are more generalizable than the current effort.

Additionally, we only compared highly difficult goals with moderate goals. Future studies can compare a variety of different difficulty levels to see their effects on performance and cheating behavior when coupled with these incentive systems, in addition to potentially other monetary incentive structures used by organizations (e.g. commission as a percent of sales) or non-monetary incentives (e.g. training opportunities, extra paid time off, etc.).

This study supports the concern from researchers that goal-setting may have unintended consequences for organizations in the form of cheating behavior (Ordóñez & Welsh, 2015). As our findings suggest, goals paired with piece-rate, loss-framed incentives can increase performance at the expense of increased cheating. Future studies can also explore how to pair this incentive structure with organizational policies and accountability practices to maintain the increase in performance while ameliorating cheating behaviors. Other interventions to improve performance could be explored in conditions that already have low cheating.

Outside of organizations, these findings also have implications in educational settings. While a gain framing, lump sum structure is common in organizational settings, loss framing, piece-rate structure may be more common in schools, where students may have the expectations that they start with a grade of A and will subsequently lose points for each wrong answer. Considering the pervasiveness of cheating in education, future studies should look at how these findings play out in those settings and explore what type of interventions could mitigate those behaviors.

Conclusion

While it may never be fully known how or why Wells Fargo employees unethically opened fake bank accounts, the present study begins to unpack the potential contextual factors that may have contributed to those behaviors. We have demonstrated that instead of just a few “bad apples”, organizational policies that pair rewards with goals that are framed as losses can motivate employees to turn to dishonest behavior to achieve those rewards. Although this may also demonstrate performance increases, this may force companies to choose between a tradeoff between performance and ethics. Hopefully, future research can extend these findings to provide companies with options on how to pair rewards with goals that engender both performance and ethical behavior so employees at Wells Fargo do not have to engage in such distasteful tradeoffs ever again.

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Table 1 Means, standard deviations, and correlations among variables

	Variables	Mean	SD	1	2	3	4	5	6	7	8
1	Goal Difficulty			-							
2	Outcome Framing			-.01	-						
3	Incentive Structure			.04	-.04	-					
4	Math skill	2.45	1.63	.12	.02	-.03	-				
5	Need for Cognition	3.37	0.49	-.03	-.18**	-.04	-.04	-			
6	Extraversion	2.89	0.85	.09	-.12	-.02	-.09	.06	-		
7	Task Performance	7.15	4.06	-.01	.16*	-.01	.56**	-.04	-.04	-	
8	Unethical Behavior	.35	1.52	.02	-.03	.04	-.10	-.14*	.14	-.03	-

N = 197, except for Unethical Behavior (*N* = 192)

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2 Analysis of Covariance of Task Performance and Unethical Behavior

Source	Task Performance (<i>N</i> = 197)			Unethical Behavior (<i>N</i> = 192)		
	<i>F</i>	<i>p</i>	η_p^2	<i>F</i>	<i>p</i>	η_p^2
Math Skills	92.80	.00	.33	2.02	.16	.01
NFC	0.21	.65	.00	6.13	.01	.02
Extraversion	0.17	.68	.00	3.81	.05	.03
Goal Difficulty (G)	1.71	.19	.01	0.07	.80	.02
Outcome Framing (O)	6.53	.01	.03	0.20	.66	.00
Incentive Structure (I)	0.09	.76	.00	0.07	.80	.00
GxO	7.38	.01	.04	1.05	.31	.01
GxI	0.01	.94	.00	0.75	.39	.00
OxI	4.44	.04	.02	9.72	.00	.05
GxOxI	0.28	.60	.00	0.13	.72	.00

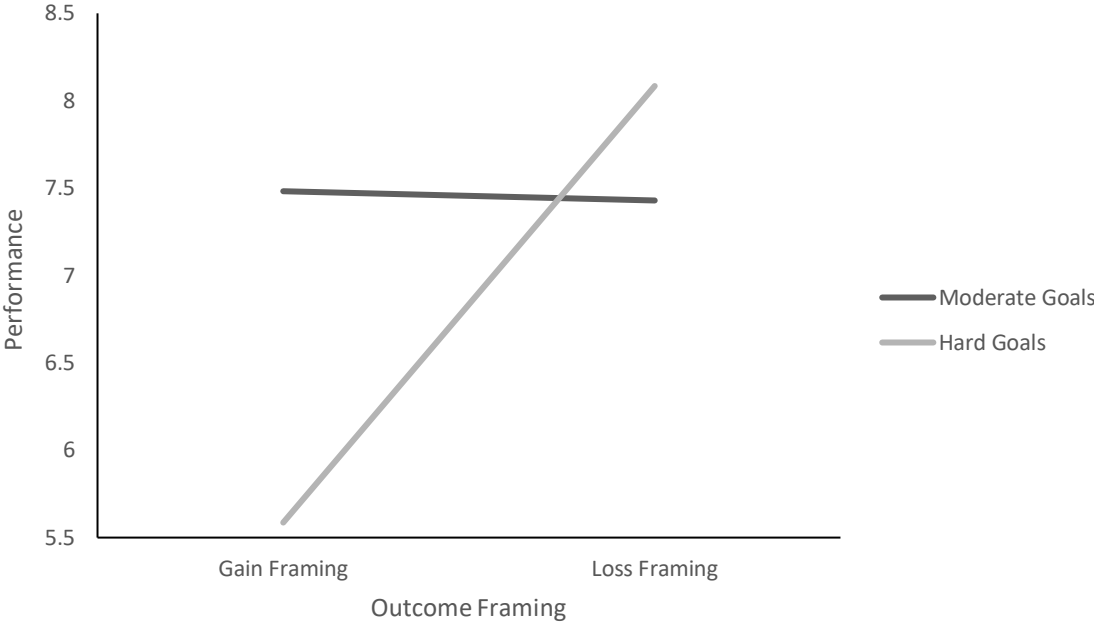


Fig. 1 Goal Difficulty by Outcome Framing on Task Performance

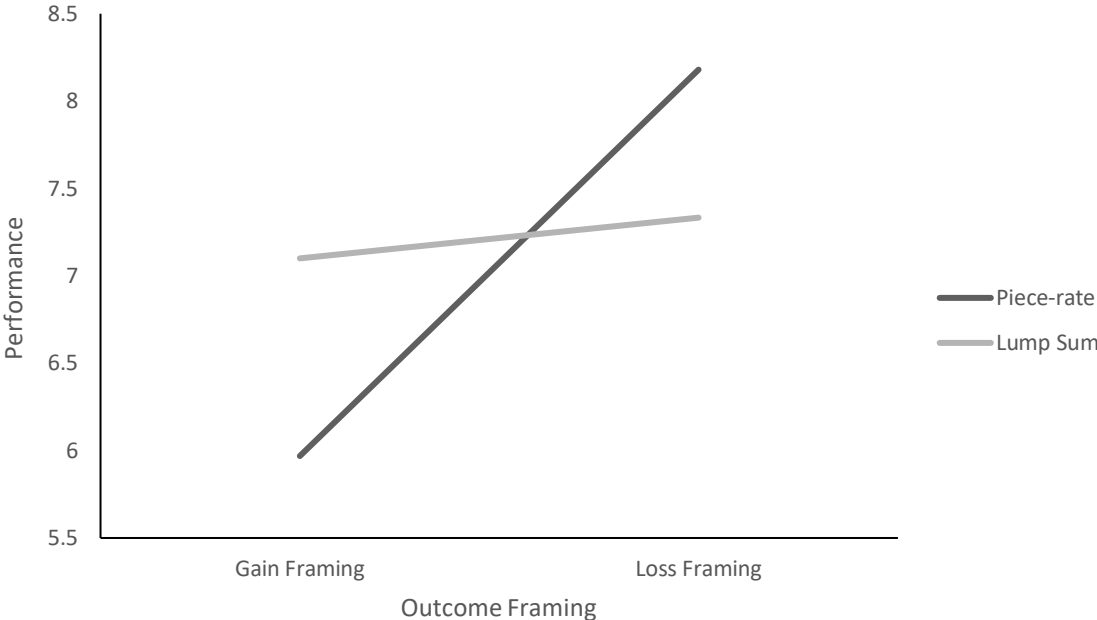


Fig. 2 Outcome Framing by Incentive Structure on Task Performance

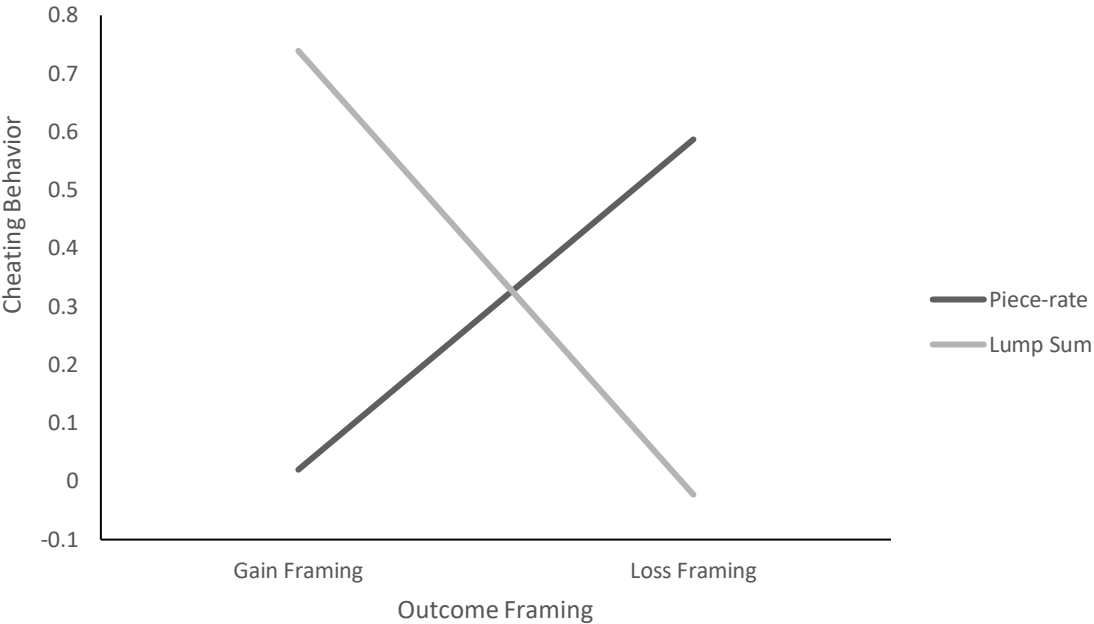


Fig 3. Outcome Framing by Incentive Structure on Unethical Behavior