The Effect of Sanction Target on Managers' Compliance with Regulations

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ABSTRACT

Regulators use sanctions to deter managers of organizations from harmful practices. Regulatory sanctions sometimes target individual violating managers but sometimes target entire violating organizations. We use an economic experiment to study the effect of targeting individuals versus entire organizations on managers' compliance decisions. In our setting, regulations prescribe full compliance (e.g., 'the spirit of the law') but enforce only minimal compliance (e.g., 'the letter of the law'). Following social identity theory and self-concept maintenance theory, we predict and find that managers are more likely to comply minimally and less likely to comply fully with regulations under firm-targeted sanctions than under manager-targeted sanctions. Consistent with self-concept maintenance theory, under firm-targeted sanctions, managers also express lower awareness of moral standards and less concern for investors' welfare. In effect, targeting firms resulted in a redistribution of minimal compliance and full compliance, but does not lead to higher overall compliance. Surprisingly, non-managers expect firm-targeted sanctions to have the opposite effect, expecting more managers to fully comply with regulations under firm-targeted sanctions than under manager-targeted sanctions. Our research suggests that regulatory regimes targeting firms may inadvertently reduce managers' willingness to comply with "the spirit of the law," leading to lower compliance quality.

Key Words: Regulatory Compliance, Regulatory Sanctions, Self-Concept Maintenance

1. Introduction

Sanctioning systems are commonly used to promote compliance with rules and regulations. For example, regulators frequently issue sanctions for bribing officials, insider trading, misreporting financial information, and under-reporting taxes, among others. Past research has examined the effect of both financial sanctions (e.g., fines) and non-financial sanctions (e.g., social disapproval), finding a complicated relationship between sanctions and compliance (Christ, 2013; Dugar, 2010; Masclet et al., 2003; Noussair and Tucker, 2005; Rege and Telle, 2004; Tenbrunsel and Messick, 1999). However, extant research has focused on using sanctions as direct feedback to the decision-maker, paying little attention to decision-makers' reactions to the collateral damage suffered by others in the organization. Collateral damage in sanctioning occurs when otherwise innocent individuals suffer because of penalties, such as when sanctions target a group or an entire organization even though many sanctioned coworkers did not actively participate in the violation.[1] This study investigates whether the knowledge that coworkers will also be sanctioned has an incremental effect on a manager's decision to comply with regulations.

Although it is important to understand the different consequences of targeting firms versus individual managers with sanctions, theory on the matter is not clear. Conventional economic theory suggests that managers incorporate only personal welfare into their decision-making, but more recent research in behavioral economics and psychology has established that concerns for affiliated others can increase cooperation (Dana et al., 2006; Gächter and Fehr,

[1] Recent examples of sanctions targeting firms include Franklin Templeton Investments (SEC administrative file number 3-19854), and Morgan Stanley (SEC administrative file number 3-15982). Recent examples of sanctions targeting individual managers include M. Tannen (SEC administrative file number 3-19853) and M. Dipp (SEC administrative file number 3-19843). Recent examples of sanctions concurrently targeting both firms and managers include Potomus Trading and E. Pritchett (SEC administrative file number 3-19844).

1999; Hannan et al., 2006; Mulder et al., 2009; Rege and Telle, 2004; White and Gerstein, 1987). This line of research suggests that managers may be more likely to comply with regulations when the sanctioning system can also negatively affect coworkers' welfare. In our study, we experimentally manipulate the target of sanctions (e.g., individual managers or entire firms) as well as the magnitude of the sanction (e.g., large or small financial penalty) to examine whether anticipated "collateral damage" to coworkers affects managers' compliance.

Our study incorporates important dimensions of a practical regulatory setting. Past research in behavioral economics has often used settings in which individuals must make a binary choice of whether or not to cooperate with others (cf. Gächter and Fehr, 1999). However, regulatory compliance decisions are often non-binary. Scholz (1984) asserts that, while legislation may have a simple goal, the world is complex, and it is difficult for regulators to anticipate every eventuality. As a result, compromises are made when the rules are created and enforced. Firms may take advantage of these compromises in the rules by doing just enough to satisfy officials while still falling short of the legislation's ideals (McBarnet, 2017). Accordingly, we present three compliance options in our setting - full compliance (representing the "spirit of the law"), minimal compliance (representing the "letter of the law"), and non-compliance.

We leverage research from social psychology to make our predictions. Social identity theory suggests that individuals sometimes forego economic gains to protect others, especially for members of a social group with a shared identity (Brewer and Kramer, 1986; De Cremer and Van Vugt, 1999; Turner and Tajfel, 1979). Consequently, the potential for collateral damage caused by firm-targeted sanctions should deter managers' non-compliance. However, social identity theory cannot inform managers’ tendency to fully comply with the 'spirit of the law' as it brings no extra benefit to group affiliates. Self-concept maintenance theory ('SCMT'; Mazar et

al. 2008) fills this gap. According to SCMT, individuals re-categorize selfish behavior to maintain a positive self-concept, by emphasizing any favorable outcomes also triggered by their behavior. In our setting, where regulators' enforcement actions do not differ between full and minimal compliance, firm-targeted sanctions facilitate one such favorable outcome of selfish behavior – managers may frame minimal compliance as protecting coworkers from penalties even though the regulation aims to protect outside stakeholders. As managers increasingly frame minimal compliance as a choice that protects coworkers, they become less concerned about the effect of less than full compliance on outside stakeholders' welfare. In comparison, when sanctions only target managers, managers are less able to rationalize actions harmful to outside stakeholders. In summary, SCMT suggests that managers are less likely to *fully comply* with regulations when sanctions also target coworkers. Lastly, we also examine as a research question the possibility that firm-targeted sanctions may interact with the magnitude of sanctions, which frequently vary in practice and which may be argued alternately to increase compliance (Mulder et al., 2009) or to decrease compliance (Tenbrunsel and Messick, 1999).

We test our predictions in an economic experiment. A total of 369 participants take part in a modified dictator game that is completed in triads. In each triad, a manager and coworker first work to generate profit for their firm, and then the manager must choose how much of the firm's profit to distribute to an investor. The regulation states that managers should distribute all firm profits to investors. However, managers can choose to keep up to 100 percent of the profit to themselves, where diverted profits increase the managers' pay, subject to a transaction cost (25 percent of diverted profits are removed from the payout pool). Managers who divert more than 20 percent of the firm's profit exceed an enforcement threshold (i.e.,' non-compliant') and trigger a potential audit and penalty. Our primary independent variables relate to dimensions of the

sanctions managers face if found to be non-compliant, *sanction target* (manager or firm), and *sanction magnitude* (low or high). *Sanction target* reflects whether levied penalties impact the manager or the firm, operationalized as a potential fine to only the non-compliant manager (manager) or both the manager and the coworker (firm). *Sanction magnitude* reflects the size of the fine. Real participants occupy all three roles in our experiment and make decisions for real incentives.

Consistent with our predictions, we find that more managers *minimally* comply with regulations, and fewer managers *fully* comply with regulations when sanctions target the firm than when sanctions target individual managers. The number of managers choosing not to comply does not differ between the conditions. Under manager-targeted sanction conditions, managers express concern for investors' welfare (the subject of the protective regulations), but managers in firm-targeted sanction conditions do not; instead, they express concern for coworkers' welfare. We also find that concern for investor welfare impacts managers' choices to fully comply in the manager-targeted condition but not in the firm-targeted condition. We do not find any interactive effect between *sanction magnitude* and *sanction target* on minimal or full compliance. Interestingly, participants in non-decision roles (e.g., coworkers and investors) appear to expect results opposite to those observed. We ask these participants to make hypothetical compliance choices, which reflect on their expectations of compliance in the setting (cf. Messick, 1999). Their choices suggest that these participants expect greater full compliance under firm-targeted sanctions in direct contrast to actual results.

Our study makes several significant contributions to research and practice. First, our study contributes to research investigating the effect of sanctions in social dilemmas. We examine a type of sanction that imposes collateral damage on the manager's coworkers. We use

social identity theory and SCMT to make separate hypotheses. Our finding that sanction target impacts managers' compliance decisions to avoid harming coworkers is consistent with social identity theory. The finding that managers rationalize *not* selecting full compliance because they have prevented harm to coworkers is further consistent with SCMT. Extant sanctioning research has typically investigated economic dimensions in sanctions (Fehr and Gächter, 2000; Fehr and Rockenbach, 2003; Gneezy and Rustichini, 2000; Karpoff et al., 2008; Schantl and Wagenhofer, 2020; Sefton et al., 2007; Tenbrunsel and Messick, 1999).[2] We investigate a non-economic dimension of sanctions, the target of sanctions, observing important and counterintuitive compliance differences between sanctions that target only managers versus those which also target coworkers. To the extent that sanctions in our setting introduced a novel rationalization for unethical behavior, the welfare of coworkers, our study also informs fraud and related research, for which rationalizations/justifications act as main antecedent to fraud (cf. Aguilera and Vadera, 2008; Free and Murphy, 2015; Schnatterly et al., 2018).

We also make methodological contributions to compliance and sanctioning research by constructing an experimental setting that incorporates differences between the 'spirit of the law' and 'letter of the law' compliance. We follow Mulder et al. (2006), who emphasized the need to study non-binary choice sets. We show that managers can take advantage of the situation when both full and minimal compliance choices are enforced similarly but impact the collective good differently. Our results suggest that regulators should be aware of such unintended consequences of policies that promote firm-targeted sanctions, especially when individuals who have the same information but do not make the decisions seem unable to anticipate the manager's actions.

[2] Related research investigating penalties in incomplete contracts borrow from and contribute to similar theory, and similarly focuses on economic dimensions of contracts (Chen et al., 2017; Christ et al., 2012; Nichol, 2019).

2. Theory and hypotheses

2.1. Basic setting

We investigate a setting where managers can determine the payoffs of themselves and others. Our setting is similar to various situations in which managers have private information and can abuse their power to take advantage of shareholders by consuming excessive perquisites, issuing deceptive forecasts, and overriding internal controls. We follow research related to Evans et al., (2001), who embed an economic dictator game in a managerial setting where managers trade-off economic incentives to misreport with social concerns including honesty and fairness (cf. Abdel-Rahim and Stevens, 2018; Church et al., 2012; Douthit and Stevens, 2015). In our setting, managers are asked to distribute a firm's profit to investors but may choose to keep some profits for personal use (e.g. perquisite consumption).

Our design incorporates three modifications to traditional economic dictator games. First, we introduce a *regulation* that prescribes a distribution threshold on the dictator (the 'manager' in the case), described as protecting the receiver (the 'investor'). The regulation states that managers transfer all firm profits to investors. However, regulators cannot legislate and prosecute this fully (consistent with the 'spirit of the law'), leaving actual enforcement to follow the 'letter of the law' (McBarnet, 2017). Consistent with this concept, we provide managers with three decision options that correspond to three thresholds: 100 percent distribution (full compliance), 80 percent distribution (minimal compliance), and 0 percent distribution (non-compliance). Sanctions exist in the form of a probabilistic audit, which triggers a sanction in the case of non-compliance. The risk-adjusted expected value of non-compliance exceeds that of minimal compliance, which, in turn, exceeds the expected value of full compliance. A self-interested and risk-neutral manager maximizes his/her payoff by choosing non-compliance in all conditions. Risk-averse managers

may react to the probabilistic fine and minimally comply. However, there are no additional economic benefits to complying fully, which lowers managers' payoffs and increases the investor's payoffs. Therefore, full compliance reflects on managers' non-economic motivations, as discussed below.

Our second modification introduces a third person, labeled a 'coworker.' Both the manager and the coworker receive the same fixed wage, but coworkers do not receive any portion of the dictator's diverted profits. Nevertheless, coworkers may be subjected to penalties when sanctions target the *firm* (comprised of the manager and his/her coworker). In such situations, the manager can "protect" the coworker from sanctions by minimally complying, removing the threat of sanctions. Prior studies, notably Church, Hannan, and Kuang (2012) and Batson et al. (1999), link financial interests of the affiliated person (coworker) and the receiver (investor) and examine the conflict between two different types of altruism as the affiliated person would benefit from the manager's dishonesty. Our setting differs from those studies in that the coworker does not benefit from non-compliance. This choice enables our study to more directly test our underlying theory.[3]

Lastly, we incorporate a welfare loss into the diversion choice. In our setting, the manager keeps only 75 cents of every dollar of funds diverted from the firm to him/herself, amounting to a 25 percent deadweight loss. This loss represents processing costs incurred by individuals who engage in illegal activity, such as payments to unscrupulous accountants,

[3] The violations we study may involve certain affiliated individuals who financially benefit from the violation. However, there will always be others who benefit significantly less than the manager (or not at all) in organizational contexts. We further limit the setting to the direct consequences of sanctions, omitting numerous indirect 'collateral consequences' that may moderate the effects we observe in our foundational setting and which sometimes follow from sanctioning. These include legal costs, civil litigation, lower present and future residual profits, reputational damage, among others.

lawyers, and banks for facilitating such transactions. From a design standpoint, it also signals the manager's willingness to violate utilitarianism by reducing overall welfare.

2.2. Regulatory enforcement and compliance

Individuals act ethically for various economic and non-economic reasons including altruism/concern for others, obedience, desire for social acclaim, and avoiding sanctions and reprimands (Gneezy and Rustichini, 2000; Grasmick and Bryjak, 1980; Pratt and Cullen, 2005). Despite these many motivations, unethical behavior frequently arises in business settings. Recent corporate scandals include notable companies such as Facebook, Purdue Pharma, Wells Fargo, and Boeing. These incidents suggest that even the largest and most scrutinized companies struggle with compelling managers to act ethically (The Economist, 2019). While internal ethical systems such as codes of ethics are undoubtedly crucial for these companies (Davidson and Stevens, 2013), external regulations are also necessary when information asymmetry is severe and private litigation cannot generate expedient and equitable settlements (cf. Shleifer, 2005).

Sanctions are an important dimension of regulation (Coffee, 2007), often including economic consequences (e.g., fines). Existing research observes a complicated relationship between economic sanctions and ethical behavior. From a high level, sanctions are typically intended to discourage unethical behavior but can sometimes encourage it (Tenbrunsel and Messick 1999). On the one hand, sanctions provide an economic disincentive to violate regulations; on the other hand, sanctions suggest that some others do not comply with regulations, potentially encouraging unethical behavior (Fehr and Gächter, 2000; Gneezy and Rustichini, 2000; Schnedler and Vadovic, 2011; Tenbrunsel and Messick, 1999; Xiao, 2013).

Research investigating compliance has often treated compliance as binary (Alm and McKee, 2004; Coletti et al., 2005; Morgan et al., 2019; Tenbrunsel and Messick, 1999). However, voices in practice frequently acknowledge gaps between the compliance that is enforced and the compliance desired (so-called 'letter of the law' versus 'spirit of the law') (Eberlein and Matten, 2009; McBarnet, 2017).[4] These gaps may arise for numerous reasons, relating to the challenges in codifying regulations, monitoring compliance, and enacting enforcement. Enforcement gaps create opportunities for managers to lower compliance costs without incurring a greater risk of sanctioning. However, both research and anecdotal evidence suggest that some individuals nevertheless select ideal 'spirit of the law' compliance, even when higher levels of compliance come at personal cost. Given the complex relationship observed between sanctions and compliance noted above, sanctions may differentially affect compliance to the 'spirit of the law' (we deem *full compliance*) and compliance to the 'letter of the law' (we deem *minimal compliance*). Understanding the impact of sanctions on different levels of compliance would be of great use to regulators. In particular, we investigate how sanctions that target the firm versus targeting individuals may affect the choice between full and minimal compliance.

2.3. The effect of sanction target on managers' compliance

First, it is crucial to recognize that our setting provides managers with the opportunity to 'extract economic rents' based on their position. Conventional economic theory would predict that individuals will maximize expected value subject to risk preferences. As a result, some managers will not comply, some will minimally comply, but none will fully comply with external regulation. Potential collateral damage to coworkers is not expected to affect their

[4] Other research notes instances of 'over compliance' and ethical non-compliance, consistent with notions that compliance should not be evaluated in a strictly binary sense (Evans et al., 2001).

actions. However, social identity theory (Ashforth and Mael, 1989; Hogg and Terry, 2000) provides different predictions. Social identity theory suggests that when individuals perceive themselves as part of a group, they derive utility from achieving the group's goals and often sacrifice their own goals to achieve them. In an organizational setting, affiliations with the same employer and experience of working together serve as catalysts to group identity formation. Further, the formation of an in-group is usually accompanied by hostility toward an out-group. Research shows that individuals consistently favor in-group goals over out-group goals (Brewer, 1979). Therefore, consistent with social identity theory, we predict that when sanctions target the firm (both manager and coworker) in our setting, managers will be more likely to comply minimally because doing so will prevent coworkers from being hurt.[5]

> ***H1****: The percentage of managers choosing minimal compliance will be higher under firm-targeted sanctions than under manager-targeted sanctions.*

However, social identity theory does not directly inform whether targeting individual managers will increase or reduce the number of individuals who fully comply with the regulation. We turn to *self-concept maintenance theory* (Mazar et al. 2008) to understand how targeting the firm may affect the number of managers choosing to comply with the regulations fully. According to SCMT, individuals develop internal standards for morality through socialization. Actions that help people meet these standards positively update self-concepts, which provide utility (Mazar et al. 2008). In contrast, actions that do not meet these standards can negatively update self-concepts, generating disutility. Often, individuals face dilemmas where they can financially enrich themselves at the expense of others. However, instead of trading-off financial rewards with negative self-concept, SCMT documents channels whereby

[5] While we expect this to be true for most instances, our predictions and results may not appear in extreme cases where employees in the same organization have very low joint identity.

individuals rationalize otherwise selfish actions to avoid negatively updating their self-concepts (Mazar et al. 2008).

One way that individuals rationalize immoral actions is by re-categorizing them as compatible with current self-concepts. Mazar et al. (2008) suggest that the re-categorization process is more likely to occur when the perception of an action is malleable, such as when the context surrounding the action supports multiple interpretations. For instance, individuals may construe self-serving behavior in terms of any desirable externalities that may also occur, enabling them to focus on positive consequences and overlook negative consequences. In our setting, when both the manager and the coworker face sanctions, the decision to minimally comply can be interpreted differently. First, the manager may perceive minimal compliance as taking money away from the investor, which will lead to negative updating of the manager's self-concept. Second, the manager may perceive minimal compliance as preventing the coworker from facing sanctions, which will not trigger negative updating of the manager's self-concept. Indeed, this interpretation may even *enhance* the manager's self-concept. In contrast, re-categorization is less likely when only sanctions target the manager, who perceives minimal compliance as a tradeoff between financial reward and negative self-concept. In other words, minimal compliance is less malleable when sanctions target the manager. However, when sanctions target the firm, choosing minimal compliance has a positive effect on the self-concept. Thus, we predict that more managers will select minimal compliance when sanctions target the firm than when sanctions target individual managers.

> ***H2****: The percentage of managers choosing full compliance will be lower under firm-targeted sanctions than under manager-targeted sanctions.*

2.4. Interaction between sanction magnitude and sanction target

Conventional economic theory suggests if managers attend primarily to the economic magnitude of sanctions, the regulator should increase sanction magnitude so that the expected value of compliance exceeds the expected value of non-compliance. Empirical research suggests that sanction magnitude only weakly predicts compliance (Frey, 2007; Pratt and Cullen, 2005) and that compliance often greatly exceeds so-called 'rational choice' models (Cooter, 2000; Evans et al., 2001; Gibson et al., 2016; Kaplan et al., 2009). Theoretical research, too, has begun to acknowledge that compliance may not be strictly increasing in sanction magnitude, even when modeled in terms of its economic dimensions (cf. Schantl and Wagenhofer, 2020).

To better illuminate the role of economic dimensions in compliance, we select a sanction magnitude that *does not exceed* the expected value of non-compliance. This choice enables our study to analyze if increasing magnitude could lead to at least some individuals to comply more. Because the expected value condition is not met, we do not formally advance predictions relating to the main effect of sanction magnitude on compliance. Instead, we focus on the possible interaction of sanction magnitude and sanction target.

Consistent with the null argument for H1, one could argue that self-interested managers do not care about the sanctions affecting others, such as those imposed on coworkers. Under this reasoning, sanction magnitude should not interact with sanction target because targeting others with sanctions is of no consequence to managers. Relaxing the assumption of pure economic self-interest, one could also argue that sanction target may influence compliance choices when the magnitude of sanctions is low because the manager can sacrifice some economic benefit to signal virtue and manage impressions. However, if managers are looking to maximize financial welfare, sanctions high in magnitude could generate high compliance levels, and other sanction

dimensions will show minimal incremental effect. If so, the interaction between sanction target and sanction magnitude will be *negative*, as the benefits of firm-targeted sanctions will be lower for strong than for weak sanctions.[6] Thus, under the economic perspective, the interaction between sanction target and sanction magnitude will have a negative effect or have no effect. Because this economic perspective contrasts with our predictions based on social identity theory and SCMT (H1 and H2), we investigate whether the effects predicted in H1 and H2 will interact with sanction magnitude as a research question.

> ***RQ1****: Will the interactive effect of sanction target and sanction magnitude impact managers' compliance both at the minimal and the full compliance level?*

3. Method

3.1. Experimental design and task overview

As noted in Section II, we employ a modified dictator game conducted in triads. In each triad, we randomly assign individuals to the role of manager, coworker, and investor. We use the name Coworker 1 and Coworker 2 to describe the coworker and the manager in the study respectively because want to avoid inducing unintended hierarchical perceptions related to information-rich labels. The manager and coworkers are told that they work for a firm that generates a profit of €75,000 in experimental currency. Managers are asked to decide how much of the firm's profit to distribute to the investor. Regulations require the firm to distribute 100 percent of the profits because the investor owns the firm. However, managers can report less than the full amount, keeping a portion of the difference as perquisites, which we operationalize

[6] Directionally similar predictions also follow from sanctioning research investigating signals conveyed by the strength of sanctions, noted in the prior section (Xiao 2013; Schnedler and Vadovic 2011; Tenbrunsel & Messick 1999). To the extent that firm-targeted sanctions signal stronger norms of violation and/or injustice than individual-targeted sanctions, compliance may decrease as managers abandon the moral standard of 'doing right by the investor' because they believe it is inappropriate or because they wish to spite an unjust system. This logic similarly supports a negative interaction between sanction magnitude and sanction target.

as extra pay for the manager. The manager chooses among three distribution options: 0 percent (*Non-Compliance*), 80 percent (*Minimal Compliance*), or 100 percent (*Full Compliance*).[7] There is a 50 percent chance of being audited, which triggers a financial penalty for managers who chose to distribute 0 percent to the investor. Last, a welfare loss is triggered if the manager chooses to distribute 0 percent or 80 percent of the profits, leaving the manager with only 75 percent of the diverted profit (25 percent of the diverted profit is lost). Penalties lower the payoffs of targeted participants without increasing others' pay (the pay is removed from the payoff pool).

The experiment uses a 2 (*Sanction Target*: Manager / Firm) x 2 (*Sanction Magnitude*: Low / High) between-participants factorial design. *Sanction Target* reflects which participant(s) must pay penalties in the event of sanctions, either the manager alone (*Manager-Targeted*) or both the manager and the coworker (*Firm-Targeted*). In the case of firm-targeted sanctions, we impose the same penalty on both the decision-making manager and the coworker, in effect doubling the total value of the sanction. This design choice holds constant the penalty that decision-making managers face, avoiding confounding of *Firm Targeted* sanctions with a reduction of penalties to the manager.[8] Our second manipulation is *Sanction Magnitude*. Specifically, the financial penalty for distributing 0 percent is either €30,000 *(Low Magnitude)* or €75,000 *(High Magnitude)*. In all conditions, the certain benefit of non-compliance is €56,250 (corresponding to 75 percent of diverting €75,000 of profit). Thus, the unadjusted value of the

[7] We conducted a pilot study that provided five compliance levels with increments of 20 percent each between 0 percent and 80 percent, but with other aspects of the study held constant (e.g. enforcement only changed at the 80 percent level). Participants' choices overwhelmingly gravitated toward 0 percent, 80 percent, and 100 percent.
[8] We note that regulators rarely sanction individuals and firms at the same rate. However, we hold sanction magnitude constant between conditions to isolate the effect of interest. This choice biases against effects by lowering the potential benefit of protecting coworkers. In our study, coworkers targeted by firm sanctions do not subsidize the penalty by splitting the associated fine. Instead, both coworkers equally bear the same fine (i.e. the total penalty is doubled). This design both serves to disentangle competing explanations for compliance, and also models broad welfare losses experienced by other employees when firms bear penalties.

low magnitude fine is less than the economic benefits of non-compliance. The unadjusted value of the high magnitude fine is greater than the economic benefits of non-compliance. However, the probability of paying the fine is 50 percent, making the risk-adjusted expected value of non-compliance higher than the value of compliance. All the potential payoffs for each role by every experimental condition are listed in Figure 1.

[Insert Figure 1 Here]

Separate from the profit distribution choice, the manager and the coworker (but not the investor) are provided with an endowment of €75,000, described as a fixed salary. The endowment enables us to impose sanctions that exceed the benefits of non-compliance without creating negative payoffs. As shown in Figure 1, if the manager allocated 100 percent of the profits, all three individuals receive equal amounts of money. The manager could make more money for him/herself by distributing 80 percent of profits; the manager maximizes pay by distributing 0 percent. The expected value of the payoffs increases for the manager as the percentage of distribution decreases. However, a risk-averse manager might not choose 0 percent distribution because the payoff under high magnitude sanctions is lower than the initial endowment in the case of an audit.

3.2. Experimental procedures

Before the study, all participants complete a registration survey that collects data on their willingness to take risks.[9] After completing the survey, participants are invited to an in-lab session on a future date. In the in-lab session, participants receive instructions that relay essential details about the study. Participants do not find out their assigned role until they have reviewed

[9] We collect risk preference information as a potential covariate to analyze participants who choose not to comply. In untabulated analysis, we observe that risk preference is not a significant predictor nor is it non-randomly distributed among conditions. We exclude it from further analysis.

the material for all three roles and correctly answer comprehension check questions. Instructions and comprehension check questions are conducted using a Qualtrics survey.

After completing instructions, participants proceed to the experimental task, hosted on Ztree (Fischbacher, 2007). Participants first complete a team-building exercise used to establish social bonds between managers and coworkers. The team-building exercise consists of asking the manager and the coworker to generate a firm name and then work on a slogan-guessing game adapted from Kelly and Presslee (2017).[10] In the slogan-guessing game, the manager and coworker in each firm work together to identify 25 corporate slogans. We explain to the participants that firms would be ranked at the study's conclusion based on the total number of slogans they could correctly identify. Following Kelly and Presslee (2017), we withhold performance information until the session concludes to reduce a potential source of variation in in-group identity. All four conditions complete the same exercise.

After completing the team-building exercise, managers make their profit distribution choice. To ensure that participants understand the payoffs for each role triggered by each choice, we also provide paper versions of the payoff tables so that participants can trace their decisions to outcomes. The payoff tables present the same information as in Figure 1. While the managers make their decisions, investors and coworkers make a similar but hypothetical compliance choice, as if they were managers. Our game includes only one period. Thus, investors and coworkers have no information about how the manager might act and reciprocity motivations do not influence them. A sample decision interface is shown in Appendix A.

[10] Considering that participants in our study only communicate anonymously through the computer network, the team-building exercise was necessary to raise group identity to an acceptable level for social identity theory to take effect. We find that average team identity is 3.85 out of 7 among all managers. We do not observe statistically different identity levels among different conditions.

After participants make their respective decisions, they return to Qualtrics to complete a post-experimental questionnaire (PEQ) containing questions about group identity, the motivations behind the distribution choice, and whether they perceive the potential penalties as fair and just. We use a mixture of Likert scale questions and open-ended narrative response questions to understand participants' actions better. The PEQ concludes with the 27-question short Dark Triad Scale (Jones and Paulhus, 2014) and demographic questions. Feedback regarding the outcome of the profit distribution decision is displayed after the PEQ is complete to avoid contaminating the coworkers' and investors' responses with knowledge of the manager's decision. At the end of the study, firm rankings for the slogan-guessing task are displayed, and participants receive Canadian Dollars at an exchange rate of €15,000 to $1. Figure 2 shows a diagram of the experimental procedures.

[Insert Figure 2 Here]

3.3. Dependent variables

Our two dependent variables are *Minimal Compliance* and *Full Compliance*. Both variables are dichotomous. *Minimal (Full) Compliance* takes the value of 1 for managers who distribute 80 percent (100 percent) of the profits to their investor. Managers who meet the 80 percent minimum compliance level avoid financial penalties for themselves and their coworkers. Thus, fully complying with regulations requires the managers to favor the investor over themselves and forego the extra pay that minimal compliance provides. While the decision of whether to fully comply can be viewed as a matter of avoiding risk in the real world, our experimental design ensures that the decision to fully comply rather than minimally comply is not risk related since there is no enforcement of this rule beyond the minimal compliance level. It is important to note that higher minimal compliance could be related to lower non-compliance

levels, which takes the value of 1 for managers choosing not to distribute any profits to the investor, or lower Full Compliance level. That is, increased minimal compliance levels may reflect decreases in either non-compliance (a favorable outcome) or full compliance (an unfavorable outcome). Therefore, the results for *Full* and *Minimal Compliance* must be interpreted jointly and we do not construct an ordinal variable reflecting all three levels of compliance together.

3.4. Control variables

We construct the variable *Moral Standard* from the responses to the 7-point Likert scale question "how much you thought about what was the right thing to do when making the profit distribution decision." Because SCMT suggests that internal awareness of moral standards will make individuals adhere to a stricter delineation of moral and immoral behaviors and such awareness differs by person, including the covariate will control for individual differences and increase the test's precision.

3.5. Process variables

Lastly, we predict that managers' compliance decisions may be driven by concerns for coworker's pay and the investor's pay, in addition to their concern for their own pay. In the post-experimental questionnaire, we ask participants to indicate their agreement with three related statements (7-point Likert, Strongly Agree to Strongly Disagree). First, reflecting the managers' tendency to emphasize his/her own pay in the dilemma (*Maximize Pay*), *'it was important to consider how to maximize my earnings'*. Second, reflecting managers' concerns for the investor's welfare (*Investor Concern*), *'it was important to consider how the distribution choice impacted the investor'*. Third, reflecting managers concerns for the coworker's welfare (*Coworker Concern*), *'it was important to consider how the distribution choice impacted my coworker'*.

These questions illuminate the degree to which each of the three parties weighs on the manager's decision-making, rather than measuring the positive or negative consideration *per se* (i.e. giving or taking). We use these measures in our additional analysis to gain more insight into the relative salience of the three parties in managers' decision-making process.

4. Analysis of results

4.1. Participants

We recruited three hundred sixty-nine participants from a participant pool affiliated with the business school at a large public Canadian university.[11] Participants receive research credit for their participation and receive monetary compensation based on experiment choices, described below. On average, participants receive $4.75 of additional compensation (managers receive, on average, $6.00). Participants average 19.5 years of age, and 57 percent report their gender as male (for managers, 19.5 years of age, 55 percent male). Post-hoc analysis reveals that age is unequally distributed among conditions, with participants in the *Target Both / High Magnitude* condition reporting higher age than participants in other conditions. The inclusion of age as a covariate does not affect our results' direction nor magnitude, so we exclude it from tabulated results for ease of presentation.

4.2. Descriptive statistics

Table 1 presents descriptive statistics for *Full Compliance* (100 percent distribution), *Minimal Compliance* (distribute 80 percent), and *Non-Compliance* (distribute 0 percent) by experimental condition. Panel A displays the decisions made by the managers, whose decisions are the focus of this study. When sanctions target only the manager, managers' rate of *Full*

[11] We removed 12 participants (4 managers) for repeatedly failing attention and/or knowledge retention check questions in the exit survey. Our final sample is 96.9% of our original sample.

Compliance is 23.53 percent. However, when sanctions target both managers and coworkers, the rate of *Full Compliance* falls to only 9.09 percent. *Non-compliance* rates remain similar in both conditions. The rate of *Minimal Compliance* is 70.91 percent when the sanction targets both managers and coworkers, up from 47.06 percent when the sanction targets only the manager.

[Insert Table 1 here]

4.3. Hypotheses testing

H1 predicts that firm-targeted sanctions (targeting both managers and coworkers) will lead more managers to minimally comply with regulations. **H2** predicts that firm-targeted sanctions will lead fewer managers to fully comply with the regulations. We test these hypotheses using logistic regressions with *Minimal Compliance* and *Full Compliance* as the respective dependent variables. We include *Sanction Target, Sanction Magnitude*, and their interaction term as independent variables. We also include *Moral Standard* as a control because individuals with higher awareness of their moral standards will be more likely to comply with regulations. We report the results in Table 2, Panel A and B.

[Insert Table 2 here]

Consistent with our prediction, *Sanction Target* positively predicts the likelihood of *Minimal Compliance* (Odds Ratio = 3.00, z-score = 2.09, one-tailed p = 0.018). Moreover, *Sanction Target* negatively predicts the likelihood of *Full Compliance* (Odds Ratio = 0.13, z-score = -1.82, one-tailed p = 0.035).[12] The drop in *Full Compliance* levels is consistent with SCMT, which suggests that managers are more able to rationalize *Minimal Compliance* under

[12] Using similar regressions but excluding *Moral Standard*, *Sanction Target* positively (negatively) predicts *Minimal Compliance* (*Full Compliance)* with an Odds Ratio of 2.90 (0.12) and one-tailed p of 0.021 (0.026). Although the odds ratios are directionally consistent and similarly significant, we observe a significant improvement in model fit when *Moral Standard* is included in the regression with *Full Compliance* as the dependent variable. The model fit does not change with the inclusion of *Moral Standard* if *Minimal Compliance* is the dependent variable.

firm-targeted sanctions as helping their coworker (rather than harming the investor). We also note that in Panel B, *Moral Standard* is positively associated with *Full Compliance* (Odds Ratio = 1.31, z-score = 1.87, two-tailed p = 0.061). This result is consistent with SCMT's prediction that awareness of the "right thing to do" will lead to less rationalization and more altruism, manifesting in *Full Compliance*. Note that *Moral Standard* is not significantly associated with *Minimal Compliance* in Panel A (Odds Ratio = 1.18, z-score = 1.12, two-tailed p-value = 0.264). This result indicates that *Full Compliance* is affected by ethics, unlike *Minimal Compliance*.

Finally, we find that *Sanction Target* has no effect on *Non-Compliance* as shown on Table 2 Panel C (Odds Ratio = 0.69, z-score = -0.63, two-tailed p = 0.53). This result suggests that there is no meaningful change in the proportion of individuals complying with the regulation. Combined, results from Table 2 document a concurrent increase in *Minimal Compliance* and a corresponding decrease in *Full Compliance*, demonstrating an overall undesirable decrease in compliance quality against the 'spirit of the law'.[13]

4.4. Additional analysis for H1 and H2

We next present post-hoc analysis using data from the post-experimental questionnaire to shed light on how the compliance decision was perceived. In particular, we are interested in whether managers considered how their decisions would impact the welfare of the investor and the coworker differently in the two sanction target conditions and the strength of these concerns relative to the managers' desire to maximize their earnings. We use the three process variables

[13] In untabulated analysis, we also test our results for sensitivity to participants' dark triad personality traits. Senior managers with decision authority demonstrate high levels of dark triad personality traits associated with self-interested choice (Johnson et al., 2021; O'Reilly et al., 2014). We measure participants' dark triad personality traits using the short dark triad scale (Jones and Paulhus, 2014), observing no statistically significant relationship between dark triad personality traits and compliance in our setting.

Maximize Pay, *Investor Concern*, and *Coworker Concern,* collected in the post-experimental questionnaire as described in Section III.

When sanctions target only the manager, we expect that managers' decision to comply will be significantly impacted by concern for the investor. When sanctions target both manager and investor, we expect the manager's decision to comply to be also affected by concern for the coworker. This prediction follows SCMT which suggests that certain managers might convince themselves that minimal compliance is sufficient for maintaining a positive self-concept. If so, concern about the investor would be overshadowed by the concern for the coworker.

To test these predictions, we split the data by *Sanction Target* and separately regressed *Minimal Compliance* and *Full Compliance* on *Sanction Magnitude*, incorporating covariates for *Maximize Pay, Investor Concern*, and *Coworker Concern*.[14] Table 3 shows the regression results with *Minimal Compliance* as the dependent variable. Results from Panel A suggest that, when sanctions target only managers, managers indicate concerns about how to maximize their own pay (Odds Ratio = 1.62, z-score = 2.30, two-tailed p = 0.021) as well as their decision's impact on the investor (Odds Ratio = 1.71, z-score = 2.77, two-tailed p = 0.006). We interpret these results as suggesting that the managers perceive the dilemma as a trade-off between their welfare and the investor's welfare. Note that our PEQ questions are worded to capture the degree of attention paid to the party mentioned in the question and we did not predict the sign of the test coefficients because participants could either report a giving or taking mentality. When sanctions target the firm, the results from Panel B suggest that the concern about coworker pay is the only significant consideration for whether to comply minimally (Odds Ratio = 1.95, z-score

[14] We excluded *Moral Standard* to focus on comparing the effect of concerns for each person's pay on the distribution choice. Awareness of a moral standard cannot be theoretically separated from concerns for the investor and coworker. Further, including *Moral Standard* the regression would lead to multi-collinearity issues.

= 2.86, two-tailed p = 0.004). Contrasted with the results from Panel A, managers appear to have perceived a different decision, prompting them to prioritize the coworkers and relegate consideration of the conflict of interest between the investors and themselves.

[Insert Table 3 here]

Table 4 displays the analysis of regressing *Full Compliance* on the same list of independent variables. Panel A shows that when sanctions targeted only managers, managers are concerned by maximizing their own pay (Odds Ratio = 1.43, z-score = -3.15, two-tailed p = 0.002) and marginally concerned about the investor's pay (Odds Ratio = 1.55, z-score 1.67, p = 0.094). These results suggest that managers are still thinking about the conflict of interest between themselves and the investor. But in the firm targeted sanction condition, managers are less concerned about the investor (Odds Ratio = 1.07, z-score 0.16, two-tailed p = 0.874). The results in Panel B stand in contrast to those in Table 3, Panel B. It appears that managers recognize full compliance does not change the coworker's welfare relative to minimal compliance. However, at the same time, the existence of the sanction on the coworker, means that the investor no longer weighs on the manager.

[Insert Table 4 here]

4.5. Empirical Findings for the Research Question

RQ1 investigates a possible interaction between *Sanction Target* and *Sanction Magnitude*. On the one hand, increasing *Sanction Magnitude* could have an additive effect on *Sanction Target* such that managers looking to protect coworkers' welfare will be more motivated to do so but, at the same time, become less interested in protecting investors' welfare. On the other hand, if managers are more concerned about the signal they send about themselves using the decision, they may not be sensitive to changes in sanction magnitude. We interpret the

interaction term for the regression with *Minimal Compliance* as the dependent variable (Table 2 Panel A, Odds Ratio = 0.85, z-score = -0.21, p = 0.77) and the coefficient on the interaction term for the regression with *Full Compliance* as the dependent variable (Table 2 Panel B, Odds Ratio = 4.79, z-score = 1.17, p = 0.243). Since neither interaction term is significant, we conclude that there is no evidence that *Sanction Magnitude* strengthens the effects of *Sanction Target*.

4.6. Supplemental Analysis

4.6.1. Are firm-targeted sanctions unjust?

A competing explanation for our findings for **H2** is that managers become less likely to fully comply under firm-targeted sanctions because they feel that the sanctions are unjust and want to negatively reciprocate. For instance, Xiao (2013) observes that individuals generally perceive punishment as conveying social norms but do not perceive this when the punishers benefit from sanctions (cf. Mulder et al., 2009; Van Prooijen et al., 2008). Therefore, managers may comply minimally because they perceive a regime that would punish the coworker who is not involved with the decision to be unfair. Anticipating this potential confound, we asked participants to indicate their agreement to the questions "justice was served when a penalty was imposed by regulators", and "the penalty imposed for violating regulations was fair." Regression analyses show no statistically significant association between *Sanction Target* and fairness perceptions measured by either question nor does fairness perceptions predict the likelihood of *Full Compliance*. We conclude that perceptions of injustice cannot explain our findings.

4.6.1. Are the managers' reactions to sanction target predictable?

Finally, we explore the possibility that non-manager participants would be able to anticipate managers' reactions to *Sanction Target*. This analysis reflects on the ability of those protected by regulations (e.g., the public) to anticipate the effect of sanctions on those governed

by regulations (e.g., managers). In our study, coworkers and investors receive the same information as the managers in each condition. When managers are asked to make their compliance decisions, coworkers and investors are asked to make hypothetical decisions reflecting the choice they believe that they would make if they were making the compliance choice. We construct this question to reflect on individuals' expectations of managers' choices following decision-making research suggesting that individuals jointly determine both their expectations for their own and for others' behavior (Messick, 1999). Thus, the hypothetical decisions made by coworkers and investors reflect on their expectations of managers' behavior.

[Insert Table 5 here]

Table 1 Panel B displays the grouped hypothetical decisions made by coworkers and investors. It appears that, when the firm is targeted, coworkers and investors overestimate *Full Compliance* rates (22.81 percent expected vs. 9.09 percent actual) and underestimate *Minimal Compliance* rates (58.77 percent expected vs. 70.91 percent actual). Table 5 replicates the logistic regressions in Table 2 but replaces the sample of managers with a combined sample of non-managers (coworkers and investors). We confirm that these differences are statistically significant, suggesting that non-managers could not accurately anticipate the actions taken by the managers. We do not find that *Sanction Target* increased the level of *Minimal Compliance* (Odds Ratio = 1.08, z-score = 0.21, two-tailed p = 0.83) nor is it associated with decreases in the level of *Full Compliance* (Odds Ratio = 1.79, z-score = 1.19, two-tailed p = 0.236). [15] However, we observe that coworkers and investors appear to expect that higher *Sanction Magnitude* will

[15] We formally confirm the significance of these differences in untabulated logistic regressions pooling both manager and non-manager observations, incorporating an indicator variable for managers fully interacted with the other variables of interest. We observe that managers and non-managers perceive sanction target differently (*ManagerXTarget)* for both minimal compliance (z-score: 1.61, p-value: 0.05) and for full compliance (z-score: -2.14, p-value: 0.02)

reduce the level of *Noncompliance* (Odds Ratio = 0.47, z-score = -2.03, two-tailed p = 0.043) and that firm-targeted sanctions will interact with higher sanction magnitude to reduce Noncompliance further (Odds Ratio = 0.31, z-score= -1.64, two-tailed p = 0.10), which is not the case for the managers.[16]

5. Discussion

This study investigates the effect of government sanctions on managerial compliance. We construct an ethical decision-making setting where managers can be non-compliant, minimally compliant, or fully compliant. Minimal compliance conforms to the 'letter of the law' but not to the 'spirit of the law,' an undesirable outcome from the perspective of government and society at large. Specifically, we investigate whether sanctions targeting the firm that also cause collateral damage to innocent coworkers, instead of targeting managers alone, can effectively increase compliance quality. We also investigate the possibility that stronger sanctions may interact with who gets targeted with sanctions.

Consistent with our prediction using social identity theory and self-concept maintenance theory, we find that firm-targeted sanctions increase minimal compliance but reduce full compliance, leading to lower compliance quality. Further analysis shows that firm-targeted sanctions reduce (increase) managers' concern for investors (coworkers). The result suggests that the additional penalty endured by innocent coworkers does not generate additional motivation to comply but merely shifts the psychological motivation from protecting the investor to protecting the coworkers. Through the lens of self-concept maintenance theory, we explain that firm-

[16] The fact that non-managers cannot predict actual manager decisions is consistent with results by Mazar et al. (2008) who repeatedly find that observers do not anticipate self-concept maintainence to have a significant impact on others' behavior. In their study, lay persons appear to both underestimate the effect of categorization as well as awareness of moral standards.

targeted sanctions may inadvertently allow managers to perceive minimal compliance more favorably.

We also find mixed evidence regarding the effects of sanction magnitude on manager compliance. The results do not support the idea that sanction magnitude could interact with sanction target to impact managers' compliance. However, we note that coworkers and investors in our study nevertheless appear to *expect* that sanction magnitude will increase compliance and that sanction magnitude will interact with sanction target. The divergence between what managers do and what observers expect them to do suggests that the public may not anticipate manager actions even if they have the same set of information as managers. To the extent public disclosure may shape regulation, this mismatch may contribute to ineffective regulatory decisions.

Our study suggests several opportunities for future research. First, the firm sanction is simplified in our study and represent fines paid by the coworkers. In reality, managers in a firm may face lost income and damages to reputation, and the firm's shareholders also suffer the loss from a fine (e.g., Wells Fargo and Volkswagen), although the investors' losses may be very diffused and negligible. In a similar vein, regulators do not need to impose large penalties to cause losses of reputation - exposures of wrongdoing to the media may be sufficient. Separately, hierarchical differences between the managers who benefit from malfeasance and the employees who may share potential consequences (e.g., Wells Fargo) may interact with identity and concern for others. Second, we restricted managers' choice set to distribute 0 percent, 80 percent, or 100 percent of the profits to achieve experimental control as we needed a precise minimal compliance level. In real life, managers may not know precisely when they have crossed the threshold, just like motorists do not know exactly when the police will enforce speeding

regulations. Although we expect that our logic would hold under uncertainty, additional testing under uncertain conditions would be welcome. Several additional non-financial dimensions of sanctions are frequently employed in practice but remain largely unexplored in research (e.g., censure, deferred enforcement, etc.). We hope that future research will examine the effects of these penalties on managers' distribution choices.

Appendix A

Sample Profit Distribution Screenshot

Manager (Coworker 2) – Low Penalty / Target Both Condition

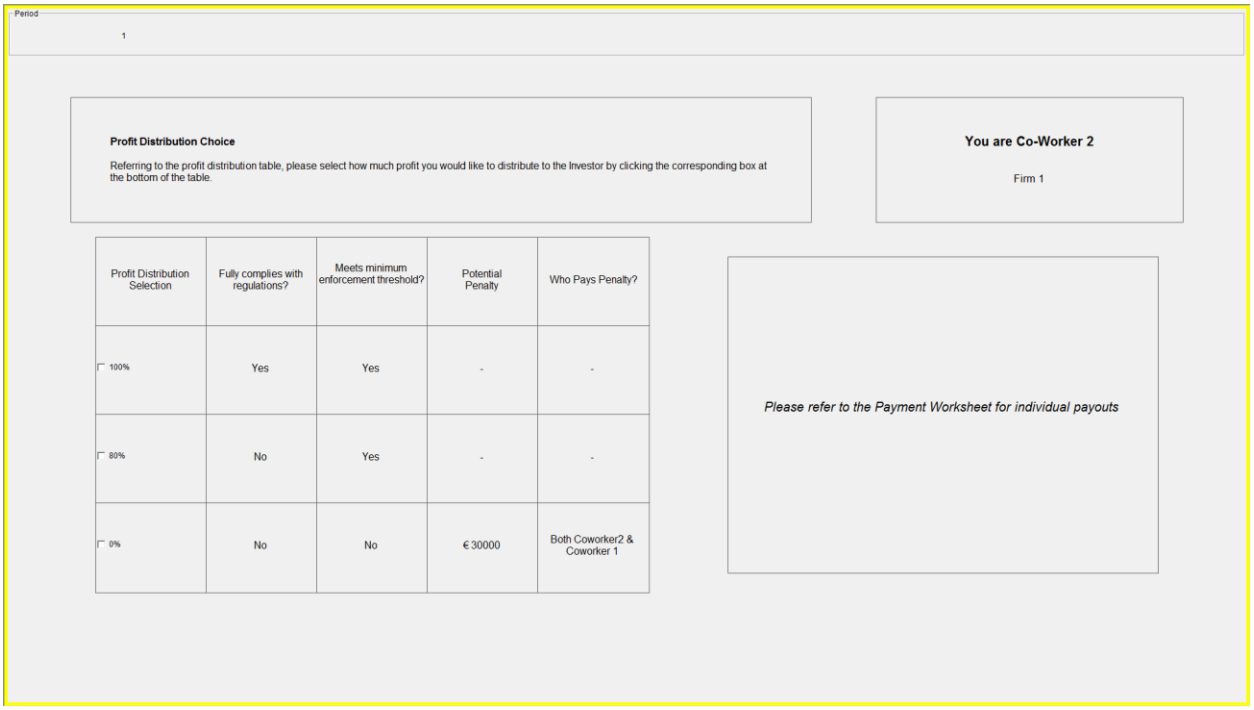

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Figure 1

Expected Values of Payoffs for Each Role

Target Both / High Penalty Condition

	Profit Distribution by Manager					
	Endowment	*0% (No Audit)*	*0% (Audit)*	*0% (EV)*	*80%*	*100%*
Manager	75,000	131,250	56,250	93,750	86,250	75,000
Coworker	75,000	75,000	-	37,500	75,000	75,000
Investor	-	-	-	-	60,000	75,000
Total Welfare				€ 131,250	€ 221,250	€ 225,000

Target Manager / High Penalty Condition

	Profit Distribution by Manager					
	Endowment	*0% (No Audit)*	*0% (Audit)*	*0% (EV)*	*80%*	*100%*
Manager	75,000	131,250	56,250	93,750	86,250	75,000
Coworker	75,000	75,000	75,000	75,000	75,000	75,000
Investor	-	-	-	-	60,000	75,000
Total Welfare				€ 168,750	€ 221,250	€ 225,000

Target Both / Low Penalty Condition

	Profit Distribution by Manager					
	Endowment	*0% (No Audit)*	*0% (Audit)*	*0% (EV)*	*80%*	*100%*
Manager	75,000	131,250	101,250	116,250	86,250	75,000
Coworker	75,000	75,000	45,000	60,000	75,000	75,000
Investor	-	-	-	-	60,000	75,000
Total Welfare				€ 176,250	€ 221,250	€ 225,000

Target Manager / Low Penalty Condition

	Profit Distribution by Manager					
	Endowment	*0% (No Audit)*	*0% (Audit)*	*0% (EV)*	*80%*	*100%*
Manager	75,000	131,250	101,250	116,250	86,250	75,000
Coworker	75,000	75,000	75,000	75,000	75,000	75,000
Investor	-	-	-	-	60,000	75,000
Total Welfare				€ 191,250	€ 221,250	€ 225,000

Notes:

Expected Value (EV) is calculated as the average of the No Audit and Audit outcomes

The manager's payoff is calculated as the endowment plus 75% of the diverted profits less penalty if audited.

The coworker's payoff is calculated as the endowment less penalty if audited

The investor's payoff is calculated as the percentage of the €75,000 profit controlled by the manager

Figure 2

Experimental Procedures Flowchart

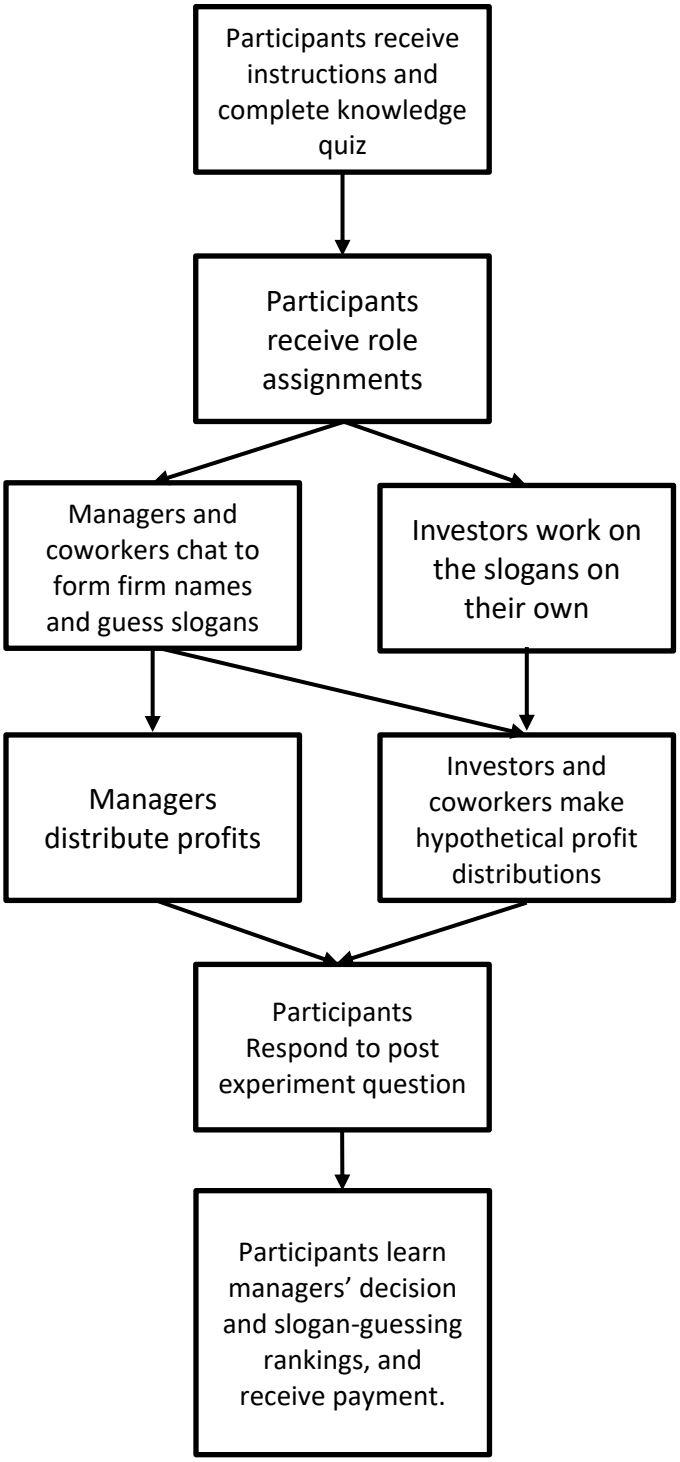

Table 1

Proportion of Managers and Non-Managers Complying with Regulation at each Compliance Level by Experimental Condition

Panel A: Percentages of Compliance Choices of Managers by Experimental Condition

		Penalty of Low Magnitude [b]	Penalty of High Magnitude	Average
Sanctions Target Manager [a]	*Full* [c]	23.68%	23.33%	23.53%
	Minimal [c]	42.11%	53.33%	47.06%
	No [c]	34.21%	23.33%	29.41%
	N	38	30	68
Sanctions Target Firm and Manager	*Full* [c]	3.57%	14.81%	9.09%
	Minimal [c]	67.86%	74.07%	70.91%
	No [c]	28.57%	11.11%	20%
	N	28	27	55

Panel B: Percentages (Std) of Compliance Choices of Coworkers and Investors by Experimental Condition

		Penalty of Low Magnitude	Penalty of High Magnitude	Average
Sanctions Target Manager	*Full* [c]	11.84%	20.31%	15%
	Minimal [c]	46.05%	53.12%	50%
	No [c]	42.11%	26.56%	35%
	N	76	64	140
Sanctions Target Firm and Manager	*Full* [c]	19.64%	24.14%	22.81%
	Minimal [c]	48.21%	70.69%	58.77%
	No [c]	32.14%	6.90%	19.30%
	N	56	58	114

[a] We manipulated *Sanction Target* at two levels. *Target Manager* = the manager pays a financial penalty for non-compliance. *Target Both* = the manager and the coworker both pay financial penalties for non-compliance.
[b] We manipulated *Sanction Magnitude* at two levels. *Low Magnitude* = the fine is €30,000 which is 40% of the endowment. *High Magnitude* = the fine is €75,000, which is 100% of the endowment.
[c] *Full* means that the decision is to fully comply and to distribute 100% of the profits to the investor. *Minimal* means minimally comply and distribute 80%. *No* means the decision is to violate and distribute 0%. Since only these choices are available, the percentages must add to 100%

Table 2

The Effect of Sanction Target and Sanction Magnitude on Full Compliance by Managers (N = 123)

Panel A: Minimal Compliance [a] as dependent variable

Model [b]	***Odds Ratio***	***SE***	***z***	***p***	***95% Confidence Interval***	
Constant	0.04	0.25	-1.45	0.147	0.12	1.37
Sanction Target	3.00	1.58	2.09	**0.018**	1.07	8.40
Sanction Magnitude	1.61	0.80	0.97	0.300	0.61	4.30
Interaction(ST x SM)	0.85	0.66	-0.21	0.771	0.19	3.90
Moral Standard	1.18	0.18	1.12	0.260	0.88	1.58

Panel B: Full Compliance [a] as dependent variable

Model [b]	***Odds Ratio***	***SE***	***z***	***p***	***95% Confidence Interval***	
Constant	0.01	0.01	-3.81	0.000	0.00	24.69
Sanction Target	0.13	0.15	-1.82	**0.035**	1.11	9.02
Sanction Magnitude	1.19	0.76	0.27	0.786	0.63	4.49
Interaction(ST x SM)	4.79	6.43	1.17	0.243	0.17	1.58
Moral Standard	2.55	0.71	3.36	0.001	1.47	4.42

Panel C: Noncompliance [a] as dependent variable

Model [b]	***Odds Ratio***	***SE***	***z***	***p***	***95% Confidence Interval***	
Constant	7.45	5.40	2.75	0.006	1.78	31.11
Sanction Target	0.69	0.41	-0.63	0.530	0.21	2.22
Sanction Magnitude	0.48	0.30	-1.19	0.233	0.14	1.61
Interaction(ST x SM)	0.53	0.53	-0.64	0.525	0.07	3.76
Moral Standard	0.44	0.09	-4.15	0.000	0.30	0.65

[a] Full Compliance = 1 if the decision is to distribution 100% of the profits to the investor, Minimal Compliance = 1 if the decision is to distribute 80%, Non-compliance = 1 if the decision is to distribution 0%. Managers much decide to pick one of the three options.

[b] Sanction Target = 1 if the sanction targets both the manager and the coworker, 0 if the sanction only targets the manager; Sanction Magnitude = 1 if the penalty is €75,000, 0 if the penalty is €30,000; Moral Standard is the response to the 7-point Likert question "how much you thought about what is the right thing to do when making the profit distribution decision."

[c] p-values are two-tailed unless bolded, which represent a predicted effect

Table 3

The Effect of Manager Motivations on Minimal Compliance

Panel A: Manager-Targeted Sanction Condition (Managers only; N = 68)

Dependent variable: Minimal Compliance [a]

Model [b]	***Odds Ratio***	***SE***	***z***	***p***	***95% Confidence Interval***	
Sanction Magnitude	2.73	1.56	1.76	0.079	0.89	8.38
Maximize Pay	1.62	0.34	2.30	0.021	1.07	2.43
Coworker Concern	0.79	0.14	-1.33	0.184	0.56	1.12
Investor Concern	1.71	0.33	2.77	0.006	1.17	2.49
Constant	0.02	0.03	-2.54	0.011	0.00	0.39

Panel B: Firm-Targeted Sanction Condition (Managers only; N = 55)

Dependent variable: Minimal Compliance [a]

Model [b]	***Odds Ratio***	***SE***	***z***	***p***	***95% Confidence Interval***	
Sanction Magnitude	1.23	0.85	0.30	0.761	0.32	4.77
Maximize Pay	0.86	0.21	-0.62	0.536	0.53	1.40
Coworker Concern	1.95	0.45	2.86	0.004	1.23	3.08
Investor Concern	0.87	0.19	-0.65	0.517	0.57	1.33
Constant	0.44	0.75	-0.48	0.629	0.02	12.21

[a] *Full Compliance = 1 if the decision is to distribution 100% of the profits to the investor, Minimal Compliance = 1 if the decision is to distribute 80%, Non-compliance = 1 if the decision is to distribution 0%. Managers much decide to pick one of the three options.*

[b] *Sanction Magnitude = 1 if the penalty is €75,000, 0 if the penalty is €30,000. Maximize Pay is the response to the 7-point Likert question "it was important to consider how to maximize my earnings", Investor Concern "it was important to consider how the distribution choice impacted the investor", and Coworker Concern "it was important to consider how the distribution choice impacted my coworker"*

Table 4

The Effect of Manager Motivations on Full Compliance

Panel A: Manager-Targeted Sanction Condition (Managers only; N = 68)

Dependent variable: Full Compliance [a]

Model [b]	***Odds Ratio***	***SE***	***z***	***p***	***95% Confidence Interval***	
Sanction Magnitude	1.43	1.09	0.47	0.637	0.32	6.40
Maximize Pay	0.45	0.11	-3.15	0.002	0.27	0.74
Coworker Concern	0.97	0.24	-0.14	0.888	0.58	1.58
Investor Concern	1.55	0.40	1.67	0.094	0.93	2.58
Constant	3.69	6.06	0.80	0.426	0.15	91.99

Panel B: Firm-Targeted Sanction Condition (Managers only; N = 55)

Dependent variable: Full Compliance [a]

Model [b]	***Odds Ratio***	***SE***	***z***	***p***	***95% Confidence Interval***	
Sanction Magnitude	3.14	4.47	0.81	0.420	0.19	50.89
Maximize Pay	0.34	0.15	-2.37	0.018	0.14	0.83
Coworker Concern	0.85	0.39	-0.35	0.724	0.34	2.10
Investor Concern	1.07	0.47	0.16	0.874	0.45	2.55
Constant	14.44	35.04	1.10	0.271	0.12	1677.84

[a] *Full Compliance = 1 if the decision is to distribution 100% of the profits to the investor, Minimal Compliance = 1 if the decision is to distribute 80%, Non-compliance = 1 if the decision is to distribution 0%. Managers much decide to pick one of the three options.*

[b] *Sanction Magnitude = 1 if the penalty is €75,000, 0 if the penalty is €30,000. Maximize Pay is the response to the 7-point Likert question "it was important to consider how to maximize my earnings", Investor Concern "it was important to consider how the distribution choice impacted the investor", and Coworker Concern "it was important to consider how the distribution choice impacted my coworker"*

Table 5

The Effect of Sanction Target and Sanction Magnitude on Full Compliance by Non-Managers (N = 254)

Panel A: Minimal Compliance [a] as dependent variable

Model [b]	*Odds Ratio*	*SE*	*z*	*p*	*95% Confidence Interval*	
Sanction Target	1.08	0.38	0.21	0.830	0.54	2.16
Sanction Magnitude	1.43	0.49	1.05	0.296	0.73	2.79
Interaction(ST x SM)	1.67	0.87	0.99	0.321	0.61	4.62
Moral Standard	1.11	0.13	0.93	0.350	0.89	1.40
Constant	0.63	0.25	-1.16	0.247	0.29	1.38

Panel B: Full Compliance [a] as dependent variable

Model [b]	*Odds Ratio*	*SE*	*z*	*p*	*95% Confidence Interval*	
Sanction Target	1.79	0.88	1.19	0.236	0.68	4.70
Sanction Magnitude	1.77	0.85	1.19	0.234	0.69	4.56
Interaction(ST x SM)	0.80	0.53	-0.34	0.732	0.22	2.92
Moral Standard	1.31	0.19	1.87	0.061	0.99	1.75
Constant	0.06	0.03	-4.92	0.000	0.02	0.19

Panel C: Noncompliance [a] as dependent variable

Model [b]	*Odds Ratio*	*SE*	*z*	*p*	*95% Confidence Interval*	
Sanction Target	0.67	0.25	-1.06	0.288	0.32	1.40
Sanction Magnitude	0.47	0.18	-2.03	0.043	0.22	0.98
Interaction(ST x SM)	0.31	0.22	-1.64	0.100	0.08	1.25
Moral Standard	0.67	0.10	-2.76	0.006	0.51	0.89
Constant	2.16	0.98	1.69	0.091	0.88	5.26

[a] Full Compliance = 1 if the decision is to distribution 100% of the profits to the investor, Minimal Compliance = 1 if the decision is to distribute 80%, Non-compliance = 1 if the decision is to distribution 0%. Managers much decide to pick one of the three options.

[b] Sanction Target = 1 if the sanction targets both the manager and the coworker, 0 if the sanction only targets the manager; Sanction Magnitude = 1 if the penalty is €75,000, 0 if the penalty is €30,000; Moral Standard is the response to the 7-point Likert question "how much you thought about what is the right thing to do when making the profit distribution decision"

[c] p-values are two-tailed unless bolded, which represent a predicted effect