WHO GETS STITCHES? THE EFFECTS OF REWARDING WHISTLEBLOWERS AND PROTECTING THEIR IDENTITY ON SUBSEQUENT COOPERATION

BY

RYAN DAVID SOMMERFELDT

DISSERTATION

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Doctoral Committee:

Assistant Professor Laura Wang, Co-Chair
Professor Michael Williamson, Co-Chair
Professor Clara Chen
Associate Professor Gary Hecht
Associate Professor Denise Loyd

ABSTRACT

Companies are strongly encouraged to implement whistleblowing programs to help detect and deter misconduct in organizations. Rewarding the whistleblower and protecting the whistleblower's identity are two highly recommended features of whistleblowing programs. I use two experiments to examine the spillover effects of these whistleblowing program features on how willing employees are to cooperate with their co-workers, both the whistleblower and neutral co-workers who did not observe misconduct or blow the whistle. Replicating prior research, I find that, when the whistleblower's identity is known, employees prefer to cooperate less with a whistleblower than with a neutral co-worker (the "whistleblower effect"). Expanding beyond prior research, I find that providing a reward to the whistleblower results in employees choosing to cooperate even less with the whistleblower (the "reward effect"). I also find that protecting the identity of the whistleblower removes the reward effect but does not remove the whistleblower effect. As a result, when employees do not know the identity of the whistleblower, they act as though all of their co-workers are whistleblowers and, thus, are less willing to cooperate with all of their co-workers. My results contribute to the literature on whistleblowing and highlight potential costs firms should consider when determining whether to reward whistleblowers and protect their identities.

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CHAPTER 1: INTRODUCTION

A recent survey by the Ethics and Compliance Initiative (ECI) found that nearly half of workers in the United States observed at least one act of misconduct committed by someone in their organization during the prior year (ECI 2018). Thus, in order to detect misconduct, an important topic to regulators, practitioners, and accounting scholars is how to encourage employees to report observed misconduct (i.e., blow the whistle) (ERC 2012; MacGregor, Robinson, and Stuebs 2014; Expolink 2019; Gao and Brink 2017). In general, research and practitioners suggest that both providing a reward for blowing the whistle (Pearlman and Mufson 2012; Freiberger Haber LLP 2017; Duke 2003; Stikeleather 2016; Chen, Nichol, and Zhou 2017; Rose, Brink, and Norman 2018) and protecting the identity of the whistleblower (Hilder and Creech 2011; Curtis and Taylor 2009; Kaplan, Pany, Samuels, and Zhang 2009, 2012) can increase the frequency with which employees blow the whistle. However, cooperation is becoming increasingly important for companies to be successful (Mathieu, Maynard, Rapp, and Gilson 2008; Carr and Walton 2014), and I posit that these whistleblowing program features can negatively impact cooperation among employees. Thus, in this paper, I examine whether there is a negative spillover effect on subsequent cooperation among group members from providing a reward for blowing the whistle and protecting the whistleblower's identity.

Employees generally work in small groups (Thompson 2008), and whistleblowing is most likely to occur among individuals who work together (Dyck, Morse, and Zingales 2010; Stubben and Welch 2020; ACFE 2020). A representative survey of workers in the United States found that 32% of employees indicated that they reported a work colleague for engaging in misconduct (blew the whistle) during the past year (ECI 2018). In addition, whistleblowers often

continue to work in the same group after blowing the whistle (ERC 2010; ERC 2012; United States Office of Personnel Management 2019). Thus, while many employees never blow the whistle, a large percentage of them work with someone who has blown the whistle. Because employees often work in the same group as whistleblowers, it is important to understand how blowing the whistle affects other employees' desire to cooperate with the whistleblower as well as how the recommended features of rewarding the whistleblower and protecting the whistleblower's identity impact subsequent cooperation.

Employees sometimes decide not to cooperate with their co-workers based on how they perceive their co-workers will behave in the future. When assessing their co-workers' future behavior, employees use the past behavior of their co-workers (what they did) as well as their perception of their co-workers' motives (why they did it) to conjecture how their co-workers might behave in the future (Mischel, Jeffery, and Patterson 1974; Tyler and Mentovich 2010; Mentovich and Cerf 2014; Harris, Lee, Thompson, and Kranton 2016). This assessment happens when a co-worker blows the whistle. Prior research and anecdotal evidence suggest that employees may be less willing to cooperate with whistleblowers after they blow the whistle due to concerns about their future behavior, namely that the whistleblower will blow the whistle again in the future (ERC 2010; Bjørkelo, Ryberg, Matthiesen, and Einarsen 2008; Ben-Yehuda 2018; Smith 2014; Reuben and Stephenson 2013). I refer to this as the whistleblower effect, which is that employees, even honest employees, do not desire to cooperate with a whistleblower as much as with other employees who did not observe misconduct and blow the whistle (referred to as "neutral employees" throughout the remainder of the paper). Expanding beyond prior literature, I predict that, in addition to the whistleblower effect, both providing a reward to the

whistleblower and protecting the whistleblower's identity will further negatively influence cooperation among group members.

I expect that there is a reward effect when the whistleblower's identity is known, wherein employees desire to cooperate with a known whistleblower even less when the whistleblower receives a reward relative to when they do not. Prior research suggests that when someone receives a reward for engaging in an action, observers are more likely to assume the individual engaged in the action for selfish motives (Lin-Healy and Small 2013; Carlson and Zaki 2018; Capraro and Kuilder 2016; Hobson, Sommerfeldt, and Wang 2020). When people view someone as selfishly motivated, they are less willing to cooperate with that person (Crocker, Canevello, and Brown 2017; Hu and Liden 2015; Chen, Pesch, and Wang 2020). Thus, the whistleblower effect reduces cooperation from employees observing that a co-worker blew the whistle (e.g., their past behavior), but the reward effect reduces cooperation even further due to providing a signal about the motives of the whistleblower.

I expect that protecting the identity of the whistleblower mitigates the reward effect but does not mitigate the whistleblower effect. Prior literature suggests that people assess a known individual differently than they assess a collective group (Sherman and Percy 2010; Tyler and Mentovich 2010; Mentovich and Cerf 2014; Menon, Morris, Chiu, and Hong 1999; Hamilton and Sherman 1996). Specifically, when assessing a known individual (in this case, the whistleblower), people's assessments are driven by their perceptions of the individual's past behavior *and* the perceived motives for that behavior. However, when assessing a group (in this case, a group of co-workers with one unidentified whistleblower in the group), people do not infer motives and instead focus on the group's past behavior to assess the group collectively (Tyler and Mentovich 2010). Relying on this literature, I predict that the cooperation-reducing

effect of providing a reward occurs when employees know the whistleblower's identity but that there is no effect on cooperation from providing a reward when employees do not know the whistleblower's identity. I also predict that protecting the whistleblower's identity results in a spillover effect when considering cooperation with other co-workers (e.g., neutral employees). When employees do not know which of their co-workers blew the whistle, they perceive that their group or everyone in the group is likely to be a whistleblower. Because of the whistleblower effect, when the whistleblower's identity is not known, I predict that there will be lower levels of cooperation with everyone in the group relative to the baseline of how much employees cooperate with known neutral employees.

I test my research question using an experimental design with a contextually rich setting where I manipulate whether or not the whistleblower receives a reward and whether or not participants know the identity of the whistleblower. In the experiment, participants imagine working for a landscaping company installing a sprinkler system with three other employees. Participants learn the importance of cooperating with other employees and are instructed about the whistleblowing program that encourages all employees to report any observed misconduct by others. I tell all participants that one of their co-workers commits misconduct, has the whistle blown on them, and is removed from the group, leaving the group with three members – the participant, the whistleblower, and a neutral co-worker. I manipulate whether or not the whistleblower receives a $300 reward and whether or not the participant knows the whistleblower's identity. I then measure how willing participants are to cooperate with the whistleblower and the neutral co-worker.

The results support my expectations. Specifically, consistent with the whistleblower effect, I find that there is less cooperation with a known whistleblower than with a known neutral

employee. Consistent with the hypothesized reward effect, participants choose to cooperate with the whistleblower even less when the whistleblower receives a reward relative to when no reward is provided, and perceptions of selfish motives fully mediate this relation. Further supporting my theory, protecting the whistleblower's identity mitigates the reward effect but does not mitigate the whistleblower effect. Instead, protecting the whistleblower's identity duplicates the whistleblower effect to all group members, leading to lower levels of cooperation with everyone in the group relative to how much participants choose to cooperate with a known neutral employee.

I also run a follow-up experiment to further test the effect of protecting the whistleblower's identity. The follow-up experiment uses a different measure of cooperation and a larger group size to confirm that protecting the whistleblower's identity leads to less cooperation with the group overall. Mediation results suggest that this result occurs because participants who do not know the whistleblower's identity view all of their co-workers, as a collective group, as possible whistleblowers who are likely to blow the whistle again in the future.

My study contributes to the literatures on cooperation and whistleblowing. Prior research on whistleblowing focuses on how whistleblowing program features influence the frequency with which employees blow the whistle (e.g., Gao and Brink 2017; Brink, Lowe, and Victoravich 2013; Rose et al. 2018; Xu and Ziegenfuss 2008; Chen et al. 2017; Stikeleather 2016), but the whistleblowing literature has largely remained silent on the spillover effects of whistleblowing program features on subsequent cooperation. This consideration is important because a lower level of cooperation can negatively affect a company's operating effectiveness.

My study also has important implications for practice. There are currently mandatory requirements or strong encouragements for all types of firms to implement whistleblowing programs, and both rewarding whistleblowers and protecting their identity are highly recommended. This is particularly interesting given that one reason rewards are recommended is because "whistleblowers frequently incur significant social costs" (MacGregor et al. 2014, p. 39), yet providing a reward may make those social costs even greater. My findings suggest that rewarding a whistleblower whose identity is known to their co-workers has detrimental effects on how much employees want to cooperate with the whistleblower. These detrimental effects on cooperation not only decrease the efficiency with which the company operates, but they could also lead to perceptions of retaliation against the whistleblower (ERC 2010), which could result in increased legal costs. Further, my study demonstrates that while protecting the identity of the whistleblower can remove the negative effect on cooperation due to providing a reward, doing so has negative ramifications for how willing employees are to cooperate with all of their co-workers, even with those who did not blow the whistle. Thus, while rewarding whistleblowers and protecting whistleblowers' identities is certainly beneficial at deterring and detecting misconduct, practitioners and regulators should consider the costs of these whistleblowing features on group cooperation when determining whether they should reward whistleblowers and/or protect their identities.

CHAPTER 2: BACKGROUND

In this chapter, I review the literature and professional practices related to whistleblowing, rewarding whistleblowers, and protecting whistleblowers' identities.

2.1 OBSERVED MISCONDUCT AND WHISTLEBLOWING

Work in organizations is increasingly being done in groups and teams rather than individually (Allerton 1996; Mathieu et al. 2008; Hu and Liden 2015), [1] and, as a result, organizations are increasingly relying on employees to cooperate with one another in their joint efforts (Carr and Walton 2014; Sanders 2007; Coletti, Sedatole, and Towry 2005). When employees work with others, it puts them in a situation where they can observe one another's actions, thus increasing the chances of observing misconduct by a co-worker when it occurs. A study by the Ethics and Compliance Initiative found that 47% of workers in the United States observed at least some misconduct during 2017 (ECI 2018). Given that many employees observe at least some misconduct by others at their organization, whistleblowing programs that create a means for employees to report the observed misconduct are either required or strongly recommended in all types of organizations.[2, 3]

[1] Thompson (2008) indicates that the modal size of work groups is five people. I focus on similar sized work groups in this study.

[2] For example, the Sarbanes-Oxley Act of 2002 requires public firms to have a whistleblower program in place for employees to report misconduct. A 2014 Supreme Court ruling extends whistleblower requirements to private firms that are contractors or subcontractors for public firms (571 US 2014). For nonprofits, the National Council of Nonprofits strongly encourages organizations to have a whistleblowing program in place (National Council of Nonprofits 2018) and Form 990 (the form used to file for tax-exempt status that many nonprofits use) now includes a line item inquiring whether the nonprofit has a written whistleblower program.

[3] While whistleblowing programs are certainly in place to encourage reporting large forms of misconduct, whistleblowing programs are also designed to encourage reporting smaller forms of misconduct. For example, Macy's Code of Conduct discusses the need to report misconduct such as employees using their employee discount to buy items for friends and family members (see https://hr.macys.net/csw/u/pub/pdfs/1221.pdf), and Google's code of conduct encourages reporting small acts of misconduct (https://abc.xyz/investor/other/google-code-of-conduct/).

An important question to practitioners, regulators, and academics is knowing how specific features of whistleblowing programs affect the frequency with which the whistle is blown on observed misconduct (e.g., ERC 2012; MacGregor et al. 2014; Expolink 2019; Chen et al. 2017; Stikeleather 2016; Gao and Brink 2017; Brink et al. 2013; Rose et al. 2018; Xu and Ziegenfuss 2008). Two recommended features of whistleblowing programs are providing a reward to the whistleblower and protecting the whistleblower's identity. Overall, this research has found that providing rewards to and protecting the identity of whistleblowers leads to fewer instances of misconduct occurring and a higher rate of reporting observed misconduct.

2.2 REWARD FOR WHISTLEBLOWING

Practitioners, regulators, and academics recommend that companies reward employees for blowing the whistle on observed misconduct (Pearlman and Mufson 2012; Freiberger Haber LLP 2017; Meinert 2011; Greenberg and Singer 2010; Duke 2003; MacGregor et al. 2014; Moraca and Hollinger 2018; Chen et al. 2017; Stikeleather 2016). For example, MacGregor et al. (2014, p. 39) indicate that companies should "provide incentives to employees who report wrongdoing." Meinert (2011) indicates that "some company officials are exploring offering rewards to encourage workers to report internally." Similarly, Freiberger Haber LLP (2017) note that "some businesses provide monetary and non-monetary incentives for employees to report illegal or unethical activities internally." The Department of Health and Human Services indicated that "pharmaceutical manufacturers may also consider rewarding employees for appropriate use of established reporting systems [e.g., whistleblowing programs] as a way to encourage the use of such systems" (Duke 2003, p. 23741). Further, while he was CEO and Chairman of Bear Stearns, Alan Greenberg wrote, "We want the people at Bear Stearns to cry

wolf," and the whistleblower "will be handsomely rewarded" (Greenberg and Singer 2010, p. 73). In addition, Moraca and Hollinger (2018, p. 9) indicate that a common practice for retail firms is to offer "honesty incentives (e.g., cash and gifts)" to employees who report dishonesty among their peers (e.g., employee theft), and Pearlman and Mufson (2012) include "reward[ing] good-faith whistleblowers" on a top ten list of whistleblowing best practices. Finally, anecdotal evidence from a retail firm indicates that employees receive a reward ranging from $250 to $1,000 for reporting a co-worker engaging in misconduct.

Prior research also supports the use of rewards to increase the effectiveness of whistleblowing programs. Specifically, research finds that providing rewards for blowing the whistle, both external and internal, leads to an increase in whistleblowing (Gao and Brink 2017; Stikeleather 2016; Rose et al. 2018; Xu and Ziegenfuss 2008). For example, Stikeleather (2016) uses a task where employees have the option to blow the whistle internally on misconduct or remain silent. When a reward is offered by the employer, the rate of whistleblowing in his experiment increased from 41.4% to 94.7%. Similarly, examining external rewards, Rose et al. (2018) find that managers are more likely to blow the whistle when they receive a large reward for doing so, but only when they are compensated with restricted stock, as opposed to unrestricted stock. Berger, Perreault, and Wainberg (2017) use a hypothetical situation where participants learn that their company is breaching a government contract, and the results also indicate that providing a reward leads to an increase in blowing the whistle.[4] Finally, providing consistent evidence with internal auditors as participants, Xu and Ziegenfuss (2008) use survey evidence to conclude that internal auditors are more likely to report observed misconduct when a

[4] Interestingly, Berger et al. (2017) not only find that providing a reward increases the extent to which individuals blow the whistle, but they also find that if a reward is mentioned to employees, but the size of the fraud is not large enough to be able to actually receive the reward, that the propensity to blow the whistle actually decreases due to the potential whistleblower questioning their moral motivation.

cash reward is provided relative to when no reward is provided, especially among internal auditors with lower levels of moral reasoning. In summary, both practice and academic research support the notion that providing a reward to the whistleblower can increase the propensity of employees to blow the whistle.

2.3 PROTECTING THE IDENTITY OF THE WHISTLEBLOWER

Another key feature of whistleblowing programs is protecting the identity of the whistleblower. As a law firm that deals with whistleblowing cases indicates, "keeping the identity of a whistleblower confidential is essential to any whistleblower program in order to protect against reprisals and to create a climate that will encourage future whistleblowers" (Hilder and Creech 2011). In addition, through the Sarbanes-Oxley Act, regulators require public firms to establish procedures for the confidential, anonymous submission of observed misconduct (SOX Sect. 301(4)). Academic research also supports protecting the identity of whistleblowers, finding that individuals are more likely to blow the whistle when their identity is protected or anonymous (Curtis and Taylor 2009; Kaplan et al. 2009, 2012).

However, despite recommendations and regulations in place to protect the identity of whistleblowers, in practice, there is significant variation in whether whistleblowers' identities are known or not known (Chen et al. 2017; ACFE 2020; Dyck et al. 2010; ERC 2010; Curtis 2006; Greenberg 2011). For example, the Association of Certified Fraud Examiners' 2020 report indicates that 50% of tips come from identified employees (ACFE 2020). When whistleblowers' identities become known, it is generally because whistleblowers choose to not remain anonymous (Dyck et al. 2010; ERC 2010), the organization's processes do not adequately protect the identity of the whistleblower (Curtis 2006; Greenberg 2011), the identity of the

whistleblower is made known through the investigation process (Society for Human Resource Management 2019; Lomer 2013), the whistleblower can sometimes better prove retaliation occurred if they choose to not remain anonymous (Gold 2019), and/or other employees can infer who blew the whistle based on work assignments or gossip among employees (Lomer 2013).

In summary, rewarding the whistleblower and protecting the whistleblower's identity are recommended both by practice and academic research. However, prior studies do not consider the effect of these whistleblowing program features on subsequent cooperation among group members after the whistle is blown, which is important to the operating effectiveness of many companies.

CHAPTER 3: HYPOTHESIS DEVELOPMENT

Whistleblowing generally occurs among individuals who work together (Dyck et al. 2010; Stubben and Welch 2020; ACFE 2020), and whistleblowers often continue to work in the same group after blowing the whistle (ERC 2010; ERC 2012).[5] As such, it is important to understand the effect of someone blowing the whistle on group members' willingness to cooperate with each other after the whistle is blown. The construct of cooperation is multifaceted and has many different dimensions with varying levels of synergy involved (e.g., Marwell and Schmitt 2013). I focus on an important and fundamental dimension of cooperation by examining one's willingness to work with another person. Importantly, prior literature has found that choosing to work with another individual is also correlated with other dimensions of cooperation (Coricelli, Fehr, and Fellner 2004; Wang, Suri, and Watts 2012). Further, while complete cooperation could be enforced by the company, I focus on the more common setting where employees can choose to voluntarily cooperate with their group members (Piderit 1993; Gratton 2009; Koloc 2014).[6]

Following prior research, I first examine the idea that employees desire to cooperate less with a whistleblower than with their other co-workers (Reuben and Stephenson 2013), which I label the "whistleblower effect." I then develop theory about a "reward effect" that further

[5] One reason whistleblowers continue to work in the same group is because it is illegal for companies to retaliate against whistleblowers, and transferring or reassigning employees is listed as a specific type of retaliation against whistleblowers that is prohibited by law (United States Office of Personnel Management 2019).

[6] I do not consider the uncommon setting where complete cooperation is enforced, and employees are required to cooperate or work with another employee. Contrary to my theory for voluntary cooperation, if employees are required to work with the whistleblower, and not cooperating is considered a form of misconduct, then employees may cooperate (or at least appear to cooperate) even more in order to avoid the whistleblower perceiving their lack of cooperation as a form of misconduct and choosing to report them. Coletti et al. (2005) provide some support for this argument, finding that participants cooperate more when there is a strong control system in place (and working with a whistleblower could be considered a strong control system), but I encourage future research to investigate the effects of whistleblowing program features when employees are required to cooperate with the whistleblower.

influences cooperation if the whistleblower receives a reward for blowing the whistle. Finally, I consider how protecting the whistleblower's identity impacts the whistleblower effect and the reward effect.

3.1 THE WHISTLEBLOWER EFFECT

People seek to understand the future behavior of those with whom they interact, and people use the past behavior of others (what they did) as well as their perceived motives (why they did it) to conjecture how others might behave in the future (Mischel et al. 1974; Tyler and Mentovich 2010; Mentovich and Cerf 2014; Harris et al. 2016). Related to whistleblowing, when someone blows the whistle, it sends a signal to other employees that the whistleblower will be watching their co-workers and may blow the whistle again in the future. While the co-workers may not be engaging in any type of misconduct, they may feel like the whistleblower is watching for them to make a mistake and will then choose to report it (Ben-Yehuda 2018; Smith 2014; Reuben and Stephenson 2013). As a result, people have an aversion to working with or cooperating with whistleblowers (i.e., the whistleblower effect).

Supporting the idea of the whistleblower effect, prior research and anecdotal evidence suggest that whistleblowers are often ostracized by those they work with, even those they previously considered friends (Curtis, Robertson, Cockrell, and Fayard 2020; Kenny 2018; Bjørkelo et al. 2008; Bjørkelo and Macko 2012; Miceli, Near, and Dworkin 2008; ERC 2010; Smith 2014). One whistleblower interviewed by Bjørkelo et al. (2008, p. 28) said the following about his interactions with his co-workers: "I realised I was kind of treated as if I was contagious or radioactive (…) I guess somebody had told them, that if you hang around him, he will report you, and you will get in trouble!" In addition, Reuben and Stephenson (2013) conducted an

experimental economics study that provides evidence of the whistleblower effect. Specifically, they found that participants (including those who were honest and did not engage in misconduct) chose to avoid working with other participants who had blown the whistle in earlier rounds because they worried the whistleblower might blow the whistle again in the future. Further, Curtis et al. (2020) provide evidence that employees ostracize the whistleblower even when there are injunctive (company policy supports whistleblowing) or descriptive norms (others in the organization blow the whistle) for whistleblowing, though ostracism occurs less when injunctive norms for whistleblowing are present. This finding indicates that the whistleblower effect is not simply created by a norm against whistleblowing, but the negative effects can be reduced when company policy supports whistleblowing. As such, before considering specific features of the whistleblowing program, I first establish the whistleblower effect as a baseline case, that, *ceteris paribus*, employees prefer to cooperate less with whistleblowers than with neutral employees.

3.2 THE REWARD EFFECT

In addition to the whistleblower effect, I build theory that suggests that rewarding whistleblowers creates a "reward effect" that leads to an even lower level of cooperation with the whistleblower. I expect that when individuals receive a reward for blowing the whistle, others will perceive the whistleblower as someone who is selfishly motivated (e.g., seeking to receive a personal gain). Employees thus not only have information about what the whistleblower did (blew the whistle) but also have a reason for why they might have done it (to receive a reward).[7] As such, not only will cooperation decrease with a rewarded whistleblower because of what they

[7] When there is no reward provided, employees may also attempt to infer motives for why the whistleblower decided to blow the whistle (e.g., they wanted to help the company, they had a grudge against another employee, they wanted to look good to their supervisor, etc.), but when a reward is provided, it creates a direct signal for employees' assessments of why the whistleblower blew the whistle (e.g., they did it to receive the reward).

did, but cooperation will also further decrease with the whistleblower because others will assume the reason why they did it – they were acting under selfish motives to receive the reward.

Supporting the idea of the reward effect, prior research suggests that when someone receives a reward as a result of engaging in an action, observers are more likely to assume the individual engaged in the act for selfish motives (Capraro and Kuilder 2016; Carlson and Zaki 2018; Lin-Healy and Small 2013). For example, in Carlson and Zaki (2018) participants read several vignettes about individuals engaging in prosocial acts (e.g., donating blood). When the individual in the vignette received a reward as a consequence of their action, participants were more likely to perceive them as being selfishly motivated than if the only consequence of their action was helping other people. Similarly, Capraro and Kuilder (2016) find that people who choose to look at what their payoff will be for completing an altruistic task before completing the task are perceived as being more selfish than people who do not look at their payoff, and that this may reflect some sort of perceived personality trait of being selfish. Barasch, Berman, and Small (2016) found that people who received incentives to collect donations for a charity were perceived as being less sincere about the cause than people who did not receive incentives. Newman and Cain (2014) find that if someone personally benefits in addition to benefiting a charity, they are perceived as less moral and ethical than someone who only benefits the charity and even than someone who only benefits personally. In general, this research suggests that when people appear to be motivated by a reward, they are perceived by others as being less sincere, less moral, and more selfish, relative to when they engage in the same action without receiving a reward. Relating these studies to whistleblowing, I expect that when someone receives a reward for blowing the whistle, observers will assume the whistleblower was motivated by the reward and that the whistleblower is selfish. Because the perception of

selfishness is associated with less cooperation (Hu and Liden 2015; Kraft-Todd, Yoeli, Bhanot, and Rand 2015; Crocker et al. 2017; Fischbacher, Gächter, and Fehr 2001; Chen et al. 2020), I expect that other employees will want to cooperate with the rewarded whistleblower even less. Therefore, I predict the presence of a reward effect, such that cooperation with the whistleblower decreases when the whistleblower receives a reward relative to when they do not receive a reward.

In summary, the whistleblower effect leads to a lower level of cooperation with the whistleblower relative to a neutral employee, and the reward effect is an additional effect that decreases cooperation with the whistleblower even further. However, the two effects occur for different reasons. The whistleblower effect occurs because the whistleblower blew the whistle (i.e., what they did), which leads other employees to assume the whistleblower is likely to blow the whistle again in the future. The reward effect occurs on top of the whistleblower effect because people also perceive the *motives* of the whistleblower (i.e., why they did it). Due to this difference, I expect that protecting the whistleblower's identity, such that their identity is not known to other co-workers, will impact the reward effect and the whistleblower effect differently.

3.3 THE EFFECT OF PROTECTING THE WHISTLEBLOWER'S IDENTITY

I expect that protecting the whistleblower's identity mitigates the reward effect. When the whistleblower's identity is protected, co-workers are no longer able to assess the whistleblower as an individual, but rather assess all of their co-workers as a collective group (Sherman and Percy 2010). Prior research indicates that people assess collective groups differently than they assess individuals (Sherman and Percy 2010; Hamilton and Sherman 1996; Susskind, Maurer,

Thakkar, Hamilton, and Sherman 1999; Menon et al. 1999). Specifically, when people assess an individual to predict how the individual might behave in the future, they consider both the individual's past actions as well as their perception of the individual's motives for those actions. However, inferring motives is a person-level issue, and, thus, while people can infer the motives of an individual, they are inherently limited when trying to assess or even think about motives of a group (Tyler and Mentovich 2010; Mentovich and Cerf 2014).

Due to the inherent limitations in assessing the motives of a group, it is much easier and more natural for people to infer motives when assessing an individual than when assessing a group. Thus, when people assess a group to determine how the group will behave in the future, they do not consider motives, and instead focus primarily on the group's past actions (Tyler and Mentovich 2010; Mentovich and Cerf 2014). For example, Tyler and Mentovich (2010) examine what factors influence participants' assessments when they assess an individual versus a collective group of individuals. Across two studies examining employees, they find that "people more strongly link evaluations of conduct to motive inferences when they are dealing with a person," relative to when they are dealing with a group. Further, in a third study, they find that when participants are asked to assess a specific individual police officer, participants primarily rely on their inferences of the police officer's motives. However, when participants assess the police department as a collective group, they do not consider motive inferences in their assessment and instead consider the past behavior of the police department.

In the context of whistleblowing, I expect that when the whistleblower's identity is not known, employees will assess their group's future behavior based on the group's past actions (that the group or someone in the group blew the whistle), but they will not also consider the motives of the group. Thus, even when the whistleblower receives a reward, if employees do not

know the whistleblower's identity, they will not assume that their co-workers, or possible whistleblowers, are selfishly motivated. As a result, I expect the reward effect to occur when employees know the whistleblower's identity (due to perceiving the whistleblower as having selfish motives) but not when they do not know the whistleblower's identity. This leads to my first hypothesis, stated in two parts based on (1) whether employees know the whistleblower's identity and thus make cooperation decisions with the whistleblower as an individual or (2) whether employees do not know the whistleblower's identity and thus make cooperation decisions with their co-workers as a group:

> **Hypothesis 1a:** *If employees know the whistleblower's identity, they cooperate less with the whistleblower when the whistleblower receives a reward relative to when the whistleblower does not receive a reward.*
>
> **Hypothesis 1b:** *If employees do not know the whistleblower's identity, they cooperate the same amount with their co-workers (both the whistleblower and neutral employees) regardless of whether the whistleblower receives a reward or not.*

While protecting the whistleblower's identity mitigates the reward effect, I do not expect it to mitigate the whistleblower effect. As a result, the whistleblower effect is duplicated to neutral employees, leading to a lower level of cooperation with everyone in the group. As mentioned earlier, when the whistleblower's identity is not known, whistleblowers and neutral employees are indistinguishable from one another, leading employees to assess their co-workers as a collective group (Sherman and Percy 2010). Thus, employees do not assess their co-workers and their future behavior based on perceived motives, but instead only consider the group's past actions in their assessments (Tyler and Mentovich 2010; Sherman and Percy 2010; Menon et al. 1999; Hamilton and Sherman 1996). In this case, the group's past action is blowing the whistle.

Because employees assess their group members collectively when they do not know the whistleblower's identity, they are likely to act as though everyone in the group is a

whistleblower. In essence, when the whistleblower's identity is unknown, it creates an environment or a perceived norm where people assume it would be normal for any of their co-workers to blow the whistle in the future and thus view all of their co-workers as whistleblowers. This leads employees to not want to work with their group members due to feeling like all of their group members are monitoring others and may blow the whistle in the future. As such, because they are indistinguishable from one another and viewed collectively as a group, whistleblowers *and* neutral employees become subject to the whistleblower effect when the whistleblower's identity is not known, leading employees to not only desire to cooperate less with the whistleblower, but also with everyone else in the group. This leads to my second hypothesis, stated formally as follows:

> **Hypothesis 2:** *Employees desire to cooperate with all members of their group less when the whistleblower's identity is not known relative to when it is known.*

See Figure 1 for a graphical representation of my hypotheses.

CHAPTER 4: METHOD

4.1 PARTICIPANTS AND TASK

To test my hypotheses, I conduct an experiment using a hypothetical but contextually-rich setting, where participants imagine they work for a landscaping company installing sprinkler systems. The setting of a landscaping company is easy for participants to internalize and captures the necessary elements to test my theory. I expect results from this setting to generalize to other settings where people work in groups and cooperation is important to the success of the organization. I recruit business students from a large state university in the United States to participate in my study. Participants access the study using a Qualtrics link and receive extra credit for completing the study.

Participants begin the study by reading about their hypothetical job as an employee of Lawn-O-Matic Inc., a large landscaping company that values high quality work and has a high standard of integrity in its business operations. Participants are informed that they work in the sprinkler installation division at Lawn-O-Matic, along with over 100 other employees. Their job consists of working in small groups to install sprinkler systems to water grass, trees, bushes, and flowers at commercial and residential properties. Participants are told that they work in groups because they can most efficiently install a high-quality sprinkler system when they work together and cooperate with other group members.

After learning about their job, participants learn about Lawn-O-Matic's whistleblowing program. They are told that because there are over 100 employees in the sprinkler installation division, their manager is not able to efficiently monitor everyone to ensure company policies and ethical practices are followed. As such, Lawn-O-Matic asks that anyone who views

misconduct among their co-workers report it to management. Participants are told that some examples of misconduct that could be observed include reporting more hours worked than are actually worked, using company funds for personal expenses, and charging customers more money for additional work and pocketing the extra money. Note that the design choice to have Lawn-O-Matic ask everyone to report any misconduct they observe creates an injunctive norm for blowing the whistle. Importantly, Curtis et al. (2020) find that injunctive (descriptive) norms for whistleblowing (do not) decrease ostracism towards a whistleblower. Thus, if anything, this design choice biases against results.

After learning about the whistleblowing program, participants read about the job they are currently working on with three other employees: David, Kevin, and John.[8] Their group seems to get along well with one another, but, after working on the job for a few days, the manager lets the team know that David committed misconduct and is being removed from the group to face disciplinary action. The misconduct was observed by one person in the group and that group member chose to blow the whistle. Participants know that they themselves did not blow the whistle or observe the misconduct.

4.2 MANIPULATIONS OF INDEPENDENT VARIABLES

4.2.1 Reward Manipulation

In the description of the whistleblowing program, I manipulate whether the whistleblower receives a reward for blowing the whistle and whether the whistleblower's identity is known or not known (see Appendix A, Panel A for Lawn-O-Matic's whistleblowing program). To

[8] Given that a majority of workers in the landscaping industry are males, I select names that are typically associated with males. However, I note that results in both the main and follow-up experiments remain unchanged when controlling for the gender of the participant.

manipulate whether a reward is present or absent for blowing the whistle, participants read that Lawn-O-Matic either does not provide incentives for reporting observed misconduct (*Reward Absent)* or provides a $300 reward for reporting observed misconduct to management (*Reward Present*).

4.2.2 Identity Known Manipulation

To manipulate whether the identity of the whistleblower is known or not known, participants are told that they either do or do not know the whistleblower's identity (*Identity Known* or *Identity Not Known*). Specifically, participants in the *Identity Not Known* conditions read that "*management does not disclose the identity of the whistleblower to the other employees.*" In contrast, participants in the *Identity Known* conditions read that "*management discloses the identity of the whistleblower to the other employees.*"

Note that in the *Identity Known* conditions, participants learn the identity of the whistleblower from management. However, in practice, the identity of the whistleblower can be discovered through various channels (e.g., see the discussion in Chapter 2). Consequently, I also include a nested condition where the identity of the whistleblower is made known by inference. Participants in this condition read that management does not disclose the identity of the whistleblower (with the same wording that participants see in the *Identity Not Known* conditions), but, after learning that a co-worker blew the whistle, they read the following: "*While Lawn-O-Matic does not disclose the identity of whistleblowers, because Kevin was the one working with David when the misconduct occurred, you know that Kevin was the one who observed and reported David for misconduct.*" I manipulate how the identity of the whistleblower is made known across two channels (by management or by inference) in the *Identity Known* conditions to confirm that the theoretical construct driving my results is whether

the identity of the whistleblower is known or not known, rather than how the identity of the whistleblower is made known.[9]

4.3 DEPENDENT VARIABLES

After reading about the misconduct that occurred and learning that one of their co-workers blew the whistle, participants make judgements and decisions designed to measure their desired level of cooperation with each group member. Specifically, participants learn that they have about 30 hours of work left on their current job, and they indicate how much they want to cooperate with each group member by allocating the 30 hours between working with Kevin (the whistleblower), working with John (the neutral co-worker), or working on their own (note that only participants in the *Identity Known* conditions know that Kevin is the whistleblower and that John is the neutral co-worker).[10] I use the number of hours allocated to work with Kevin to measure the level of cooperation with the whistleblower and the number of hours allocated to work with John to measure the level of cooperation with neutral employees. Because the whistleblower and neutral co-worker are indistinguishable to participants in the *Identity Not Known* conditions, I also consider the average number of hours allocated to both Kevin and John for these conditions. Following the measurement of my dependent variables, participants answer questions in a post-experimental questionnaire where I collect process and demographic data. See Figure 2 for a visual depiction of the experimental timeline.

[9] In line with the theoretical driver being whether the identity of the whistleblower is known or not known, rather than how the identity is made known, I do not find any differences in participants' desire to cooperate with others based on how the identity of the whistleblower is made known (e.g., all two-tailed p-values > 0.25). As such, I collapse the two identity known conditions for my analyses.

[10] See Appendix A, Panel B for the screen participants use to indicate their preferences.

4.4 DESIGN CHOICES

4.4.1 Attention Check Questions

To ensure participants understand the information about the hypothetical scenario as well as information related to my manipulations, I include attention check questions throughout my experimental instrument.[11] If participants answer these questions incorrectly, they are told that they answered incorrectly and are asked to review the information on the page and try again. Participants must answer the questions correctly before proceeding with the study.

4.4.2 Neutral Employee

In my experiment, the neutral employee is someone who does not view the misconduct and thus does not report it. Another type of employee would be one who does observe the misconduct but who chooses not to report it. I choose to examine a neutral employee as one who does not view the misconduct to be able to use the neutral employee is a control. In essence, the neutral employee is one who is completely unrelated to the misconduct, so the amount participants choose to cooperate with the neutral employee proxies for their standard level of cooperation with employees absent the whistle being blown. I leave it to future research to examine how employees perceive co-workers who view misconduct and choose to not report it.

[11] For example, one question asks participants, "Who is responsible to blow the whistle at Lawn-O-Matic," with answer choices of "managers," "anyone who observes misconduct," and "customers." This question helps ensure participants are paying attention to information on the page presenting the whistleblowing program. Another question asks, "Who reported the misconduct (e.g., blew the whistle)," with responses of "David," "Kevin," "John," and "I don't know because Lawn-O-Matic does not disclose the identity of whistleblowers" (the last option was only shown to participants in the *Identity Not Known* conditions). This question helps ensure participants attend to the manipulation about whether the identity of the whistleblower is known or not known.

4.4.3 Reward Structure

The reward for blowing the whistle in my experiment is a fixed amount of $300. First, I choose a smaller reward size to be consistent with what occurs in practice for internal whistleblowing. As mentioned in the background section, anecdotal evidence from one company indicates that employees receive a reward ranging from $250 to $1,000 for blowing the whistle internally. I select a fixed amount in my experiment so that participants do not infer anything about the misconduct based on the size of the reward. In addition, a smaller reward size would bias against my finding results, as employees are likely to view their co-workers as being even more selfish if they blow the whistle and receive a large reward relative to a small reward.

CHAPTER 5: RESULTS

5.1 PARTICIPANT INFORMATION

My final sample consists of 227 participants.[12] A power analysis using G*Power 3 shows that my sample size provided 89% power to detect a medium sized two-way interaction effect ($f = 0.25$) (Faul, Erdfelder, Lang, and Buchner 2007). The average age of participants is 19.6 years, 56.4% of participants are female, and 78.0% have current or past work experience.[13]

5.2 TEST OF THE WHISTLEBLOWER EFFECT

I first test the baseline case of whether the whistleblower effect occurs, such that participants choose to cooperate less with a whistleblower than with a neutral employee. To test the whistleblower effect, I examine whether participants choose to work fewer hours with the whistleblower than they do the neutral employee when they know the whistleblower's identity and the whistleblower does not receive a reward. Table 1 contains summary statistics for the number of hours participants allocate to the whistleblower (Panel A) and to the neutral employee (Panel B). My results provide support for the whistleblower effect, such that participants in the *No Reward / Identity Known* condition choose to work significantly fewer hours with the

[12] Prior to beginning the study, participants agree with the statement: "I understand that to receive extra credit I have to respond with coherent answers that address the questions being asked." I initially recruited 229 participants, but two participants did not respond with coherent answers and thus did not receive extra credit and were removed from the analyses. Results are inferentially identical when including these two participants.

[13] Results in both my main experiment and follow-up experiment continue to be inferentially the same when only examining participants with work experience.

whistleblower than they do with the neutral employee (9.299 < 12.338; $t_{76} = 3.09$; $p = 0.001$).[14, 15] I next consider the effects of rewarding the whistleblower and protecting their identity.

5.3 TEST OF HYPOTHESIS 1

Hypotheses 1a and 1b predict that providing a reward will lead to a lower level of cooperation with the whistleblower relative to when no reward is provided, but that this will only occur when the whistleblower's identity is known. When the whistleblower's identity is not known, there will be no difference across the *Reward Absent* and *Reward Present* conditions in how much participants choose to cooperate with their co-workers (both the whistleblower and neutral employee). Table 2 presents planned comparison tests which indicate that in the *Identity Known* conditions, participants choose to work fewer hours with the whistleblower when the whistleblower receives a reward (7.782 hours) relative to when they do not receive a reward (9.299 hours) ($t_{153} = 2.09$; $p = 0.019$), consistent with Hypothesis 1a. In contrast, and consistent with Hypothesis 1b, in the *Identity Not Known* conditions, the average number of hours participants choose to work with their co-workers (both the whistleblower and the neutral employee) does not change based on whether a reward is provided or not (10.434 hours vs. 10. 265 hours; $t_{70} = 0.27$; two-tailed $p = 0.790$).[16]

Further, Hypotheses 1a and 1b jointly predict an interaction when considering how much employees cooperate with the whistleblower. Specifically, Hypothesis 1 predicts that employees cooperate with the whistleblower less if they know the whistleblower's identity and the

[14] All p-values are one-tailed unless indicated otherwise.
[15] Because I do not expect to observe any differences when the whistleblower's identity is not known (e.g., see Hypothesis 2), my main test of the whistleblower effect is a paired t-test in the condition when the whistleblower's identity is known and a reward is absent.
[16] The same effect is observed when only looking at the unidentified whistleblower (10.447 hours vs. 10.265 hours; $t_{70} = 0.29$; two-tailed $p = 0.773$) or the unidentified neutral employee (10.421 hours vs. 10.265 hours; $t_{70} = 0.25$; two-tailed $p = 0.806$).

whistleblower receives a reward relative to when the whistleblower does not receive a reward or if employees do not know the whistleblower's identity.[17] I test the interactive nature of my first hypothesis when examining how much participants cooperate with the whistleblower by conducting a planned contrast test following Guggenmos, Piercey, and Agoglia (2018). My predictions yield contrast weights of +1, +1, +1, −3 for the following respective conditions: *Identity Not Known* / *Reward Absent*, *Identity Not Known* / *Reward Present*, *Identity Known* / *Reward Absent*, *Identity Known* / *Reward Present*. The descriptive statistics presented in Table 1, Panel A, and presented visually in Figure 3, Panel A, provide visual support for this interaction.

Table 3, Panel A demonstrates that the planned contrast is statistically significant ($F_{1,226}$ = 14.906; $p < 0.001$).[18] In addition, the contrast residual from the planned contrast test, q^2, is 0.055, indicating that most (94.5%) of the systematic variance is explained by the planned contrast. Collectively, these results provide strong support for Hypothesis 1, demonstrating that a reward effect exists, such that participants choose to cooperate less with the whistleblower when the whistleblower receives a reward, but only when the whistleblower's identity is known.

5.3.1 Test of Theory for Hypothesis 1

Recall that I predict that the reward effect occurs as a result of employees perceiving that the whistleblower is selfishly motivated when they know the whistleblower's identity but not perceiving individual motives when they do not know the whistleblower's identity. As such, I expect that participants' perception of how selfish the whistleblower is will mediate how many

[17] Because the whistleblower effect is duplicated to neutral employees when the whistleblower's identity is not known, I expect the same level of cooperation between identified and unidentified whistleblowers in the Reward Absent conditions.

[18] For completeness, I also include the results from an ANOVA in Table 3, Panel C. The results of the ANOVA yield a marginally significant interaction between Reward Present and Identity Known ($F_{1,226}$ = 2.19; p = 0.070). However, because my theory predicts an ordinal interaction (and an ANOVA tests for a disordinal interaction), I focus my analysis on the results using the planned contrast test (Guggenmos et al. 2018).

hours participants choose to work with the whistleblower when the whistleblower's identity is known, but not when it is not known. To measure participants' perception of selfishness of the whistleblower (Kevin), I ask participants the following three questions adapted from Carlson and Zaki (2018): (1) "How selfish or altruistic is Kevin as a person," (2) "How selfish or altruistic was Kevin on the job," and (3) "How selfish or altruistic were Kevin's motives on the job?"[19] Participants answered these questions on an 11-point-Likert scale with endpoints of "Extremely selfish" and "Extremely altruistic (selfless)." I conduct a factor analysis with varimax rotation to confirm that the three questions measuring how selfish participants perceive the whistleblower to be all load on the same factor. A factor analysis yields only one factor with an eigenvalue greater than one (eigenvalue = 2.51), and all of the factor loadings are greater than 0.90, indicating that the three questions all load on the same factor. As such, I create a combined measure by averaging the responses to the three questions (coded so that larger numbers indicate greater perceptions of selfishness) and label it Perceived Selfishness.[20]

When the whistleblower's identity is known, participants perceive the whistleblower to be significantly more selfish when the whistleblower receives a reward relative to when they do not (6.299 > 5.091; $t_{153} = 3.60$; $p < 0.001$; untabulated).[21] In contrast, there is no difference across reward conditions in how selfish participants perceive the whistleblower to be when the identity of the whistleblower is not known (5.725 vs. 5.588; $t_{70} = 0.45$; two-tailed $p = 0.651$;

[19] Participants answer the questions for Kevin (whistleblower) and for John (neutral co-worker). The order of the three questions is randomized as well as whether they answer the questions about Kevin or John first.
[20] Results are inferentially identical when using any single measure on its own.
[21] An alternative explanation for this finding is that participants in the reward present condition may think that the misconduct is less severe than those in the reward absent condition, and thus they may be more likely to view the whistleblower as being selfish. However, I ask participants in the post-experimental questionnaire how serious and how unethical they perceive the misconduct to be, and I do not find any significant differences across the reward conditions (all two-tailed p-values > 0.23).

untabulated).[22] I further examine this effect by conducting a test of moderated mediation following Hayes (2018) (Model 7) to test whether Perceived Selfishness mediates the relation between Reward Present and Cooperation with the whistleblower when the whistleblower's identity is known but not when the identity is not known. Table 4, Panel A, graphically portrays my results. As expected, I find that Perceived Selfishness fully mediates the relation between Reward Present and Cooperation with the whistleblower when the identity of the whistleblower is known (β = −0.784; SE = 0.280; 90% CI = [−1.276, −0.365]), but not when the identity is not known (β = 0.089; SE = 0.191; 90% CI = [−0.219, 0.411]) (see Table 4, Panel B). The index of moderated mediation in Table 4, Panel C indicates that the difference between the two indirect effects is significant (Index = −0.873; SE = 0.354; 90% CI = [−1.503, −0.347]).

5.4 TEST OF HYPOTHESIS 2

Hypothesis 2 predicts that protecting the whistleblower's identity will duplicate the whistleblower effect, such that cooperation will be lower with both the whistleblower and neutral employees. To test Hypothesis 2, I examine the number of hours participants choose to work with the unidentified whistleblower and unidentified neutral employee in the *Identity Not Known* conditions compared to the number of hours participants work with the identified neutral employee in the *Identity Known* conditions. I consider the identified neutral employee to be a good control representing a baseline level of cooperation because the identified neutral employee represents a co-worker who participants know was uninvolved in the whistleblowing process. Consistent with Hypothesis 2, cooperation with the whistleblower in the *Identity Not Known*

[22] There is also no difference resulting from providing a reward to the whistleblower in how selfish participants perceive the neutral employee to be when the whistleblower's identity is not known (5.676 vs. 5.518; $t_{70} = 0.61$; two-tailed p = 0.542; untabulated).

conditions is significantly lower than cooperation with the neutral employee in the *Identity Known* conditions (10.361 < 12.465; $t_{225} = 3.50$; $p < 0.001$; untabulated), consistent with protecting the whistleblower's identity not removing the whistleblower effect.[23] However, to fully test Hypothesis 2, I also examine whether participants choose to cooperate with the neutral employee less in the *Identity Not Known* conditions than in the *Identity Known* conditions. Figure 3, Panel B graphically portrays results suggesting that the whistleblower effect is duplicated to neutral employees when the whistleblower's identity is not known. Providing further support for Hypothesis 2, the first column of Panels A and B in Table 5 demonstrates that participants allocate significantly fewer hours to work with the neutral employee when the whistleblower's identity is not known than when the whistleblower's identity is known (10.347 < 12.465; $t_{225} = 3.52$; $p < 0.001$).[24] This result implies that not only does protecting the identity of the whistleblower fail to remove the whistleblower effect for whistleblowers, but it duplicates this negative effect to neutral employees, leading to less cooperation with everyone in the group.

5.4.1 Test of Theory for Hypothesis 2

As described in my theory section, I expect that the whistleblower effect is duplicated to neutral employees because individuals perceive their co-workers as a collective group, and perceive that it is normal for the group, or anyone in the group, to blow the whistle. As such, I expect that participants will perceive that it would be more normal for their co-workers to blow the whistle in the future when they do not know the whistleblower's identity than when they do

[23] As demonstrated in Table 2, Panel A, this effect continues to be significant when only looking at participants in the *Reward Absent* condition (10.265 < 12.338; $t_{109} = 2.19$; $p = 0.015$) or in the *Reward Present* condition (10.447 < 12.590; $t_{114} = 2.81$; $p = 0.003$).

[24] As demonstrated in Table 2, Panel B, this effect continues to be significant when only looking at participants in the *Reward Absent* condition (10.265 < 12.338; $t_{109} = 2.19$; $p = 0.015$) or in the *Reward Present* condition (10.421 < 12.590; $t_{114} = 2.84$; $p = 0.003$).

know the whistleblower's identity. In my post-experimental questionnaire, I ask participants for their agreement with the following statement using a 7-point Likert scale: "If an employee at Lawn-O-Matic observes misconduct, it is normal for them to blow the whistle." As column 2 of Table 5 demonstrates, consistent with my theory, I find that participants believe that it is significantly more normal for their co-workers, as a collective group, to blow the whistle in the future when the identity of the whistleblower is not known relative to when it is known (5.444 > 4.697; $t_{225} = 3.91$; $p < 0.001$).[25] However, the extent to which participants view blowing the whistle as normal does not mediate the relation between Identity Known and Cooperation in my main experiment. I further address this in a follow-up experiment discussed in the next section.

[25] This effect continues to be significant when only looking at the *Reward Absent* conditions (5.441 > 4.584; $t_{109} = 2.98$; $p = 0.002$; untabulated) or the *Reward Present* conditions (5.447 > 4.808; $t_{114} = 2.51$; $p = 0.007$; untabulated).

CHAPTER 6: FOLLOW-UP EXPERIMENT

I conduct a follow-up experiment to further investigate the whistleblower effect adversely impacting overall group cooperation when the whistleblower's identity is not known and to rule out an alternative explanation for the results in my main experiment. The results of my main experiment indicate that cooperation decreased with both employees (the whistleblower and the neutral employee) when participants did not know the whistleblower's identity, relative to an identified neutral employee. However, these results were based off of how many hours (out of 30) participants chose to allocate to work with each employee, and a large number of participants in the *Identity Not Known* conditions simply allocated the same number of hours to the whistleblower, the neutral employee, and themselves.[26] Thus, an alternative explanation is that participants in the *Identity Not Known* conditions did not know how to allocate their hours and simply decided to evenly allocate 10 hours of time to work with each of their co-workers and on their own. This follow-up study addresses this alternative explanation by showing that, when using a different measure for cooperation, cooperation with the group overall is lower when participants do not know the whistleblower's identity relative to when they do.

6.1 DESIGN

Because of my focus on testing the whistleblower effect on neutral employees when the whistleblower's identity is not known, I conduct an experiment with a 1×2 design where I manipulate whether participants know the identity of the whistleblower or do not.[27] In both

[26] For example, in the main experiment, 58.33% participants in the *Identity Not Known* conditions assigned 10 hours to themselves and 10 hours to each of their co-workers, compared to 29.68% in the *Identity Known* conditions.
[27] In the *Identity Known* condition for the follow-up experiment, participants learn the identity of the whistleblower from management.

conditions, the whistleblower does not receive a reward. The design for my follow-up experiment closely follows that of my main experiment, with a few differences. Specifically, I continue to tell participants that they work in the sprinkler installation division for Lawn-O-Matic, they work in groups, and they have the same whistleblowing program as in the main experiment. In my follow-up experiment, however, I use a different approach to measure cooperation that does not allow participants to evenly allocate hours to all of their group members and instead captures overall cooperation with the current group.

I follow Reuben and Stephenson's (2013) approach to measure cooperation by measuring how likely participants are to select working with current group members on future assignments. Specifically, I tell participants that their manager gives them the choice of which three people they would like to work with on the next job (after finishing the current job). In order for this approach to measure cooperation with the current group, participants need to have several co-workers to choose from to work with on the next job (in the main experiment there would have only been two co-workers). Thus, I tell participants that on the current job they work in a group with seven employees: the participant, David, Kevin, John, Mike, Jack, and Will. This design choice also helps test my theory with a larger group size, where there is a smaller probability that any particular group member could be the whistleblower. Similar to my main experiment, Kevin blows the whistle on David for committing misconduct, and David is removed from the group. To measure cooperation, participants can choose up to three people from a list of each of their current co-workers (Kevin, John, Mike, Jack, or Will) or up to three new individuals not from their current group (these three options are labeled in the experimental instrument as "Someone not from my current group"). Thus, my measure for cooperation ranges from zero (if participants

select to not work with anyone from the current group) to three (if participants select to work only with people from the current group).

To measure my mediator, I ask participants for their agreement with the following statement: "All of my group members are likely to be whistleblowers in the future," with a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). This question directly captures my theory that the reason people cooperate with everyone in their group less when the identity of the whistleblower is not known is because they view all of their group members collectively as likely to blow the whistle in the future.

6.2 RESULTS

6.2.1 Participant Information

Using students from the same university, I recruit 156 accounting students who did not participate in my main experiment. A power analysis using G*Power 3 shows that my sample size provided 93% power to detect a medium sized mean-comparison effect (d = 0.5) (Faul et al. 2007). The average age of participants is 22.5 years, 46.2% of participants are female, and 75.0% have current or past work experience.

6.2.2 Test of Hypothesis 2

The results of my follow-up experiment provide further support for Hypothesis 2. Specifically, as indicated in the third column of Panels A and B, Table 5, participants are significantly less likely to select current group members to work with on the next job in the *Identity Not* Known condition relative to the *Identity Known* condition ($1.731 < 2.449$; $t_{154} = 3.763$; $p < 0.001$). In addition, consistent with my theory, the fourth column of Panels A and B,

Table 5, demonstrates that participants are significantly more likely to view all of their group members as future whistleblowers in the *Identity Not* Known condition relative to the *Identity Known* condition ($4.731 > 3.872$; $t_{154} = 3.869$; $p < 0.001$).

To further test my theory, I conduct a mediation analysis following Hayes (2018) (Model 4) to test whether viewing all group members as future whistleblowers (All Are Whistleblowers) mediates the relation between whether participants know the identity of the whistleblower (Identity Known) and the extent to which they want to cooperate with their group members (Cooperation). Table 6, Panel A, graphically portrays my results, and Panel B presents the results of a bootstrap test following Hayes (2018). I find that All Are Whistleblowers partially mediates the relation between Identity Known and Cooperation with their group members ($\beta = 0.102$; SE $= 0.067$; 90% CI $= [0.006, 0.222]$).[28]

In summary, the results of my follow-up experiment provide additional evidence for my second hypothesis that protecting the identity of the whistleblower leads to less cooperation with everyone in the group, even when the group size is larger.

[28] My results indicate partial mediation because, while the indirect path through the mediator (All Are Whistleblowers) significantly affects the dependent variable (Cooperation), my independent variable (Identity Known) continues to be significant in the presence of the mediator.

CHAPTER 7: CONCLUSION

While providing rewards to whistleblowers and protecting whistleblowers' identities has been shown in prior literature to be effective at increasing whistleblowing (Gao and Brink 2017; Rose et al. 2018; Stikeleather 2016; Kaplan et al. 2012), my theory and results suggest that there are negative spillover effects of these whistleblowing program features on cooperation among group members. Specifically, I demonstrate that there is a whistleblower effect such that employees prefer to not cooperate with the whistleblower. Further, I find that providing a reward introduces a reward effect which leads to even less cooperation with the whistleblower because participants view the whistleblower as being selfishly motivated. I also find that protecting the identity of the whistleblower removes the reward effect but does not remove the whistleblower effect. As a result, because whistleblowers and neutral employees are indistinguishable from one another when the whistleblower's identity is not known, protecting the whistleblower's identity duplicates the whistleblower effect to neutral employees, leading to lower levels of cooperation with everyone in the group. I confirm this latter finding in a follow-up experiment and demonstrate that when employees do not know the whistleblower's identity, they believe that all of their co-workers are likely to blow the whistle in the future, which leads to a decrease in cooperation with everyone, relative to when the whistleblower's identity is known.

My study contributes to the whistleblowing literature and to practice by investigating the effects of whistleblowing program features on subsequent cooperation. Currently, practice and academic research encourage organizations to provide rewards to whistleblowers and ensure that whistleblowers' identities are protected from other employees in order to increase the likelihood that employees will blow the whistle when they witness misconduct (e.g., Gao and Brink 2017;

Brink, Lowe, and Victoravich 2013; MacGregor et al. 2014; Kaplan et al. 2012), but the whistleblowing literature has largely remained silent on the spillover effects of whistleblower program features on subsequent cooperation.[29] While it is certainly important to encourage whistleblowing when misconduct is observed, it is also important to consider how subsequent cooperation will be impacted by these whistleblowing program features. While my theory and results do not consider all of the costs and benefits of whistleblowing program features, I do highlight the cost on cooperation from rewarding whistleblowers and protecting their identity.

Given the cost on cooperation, for companies where cooperation is critical to achieving successful operations, it may be beneficial to not reward the whistleblower and to disclose the whistleblower's identity to other employees in order to avoid reducing cooperation among all employees. For other companies, cooperation among employees is critical, but they also operate in environments where there is an increased likelihood of employees engaging in misconduct. In these companies, cooperation and blowing the whistle need to be encouraged. One possible strategy may be to disclose the whistleblower's identity, thus avoiding harming cooperation among all employees, but to also create a strong ethical culture in organizations (ECI 2018; Dalton and Radtke 2013; Berry 2004). Doing so could lead other employees to view whistleblowing more favorably and reduce the negative influence of the whistleblower effect. I encourage future research to investigate the efficacy of different organizational cultures influencing how employees perceive whistleblowers.

[29] One study that does examine the impact of whistleblowing program features on cooperation is Wallmeier (2019). He finds that, when whistleblowers make false whistleblowing reports against their manager (claiming misconduct occurred when it did not), the manager (the alleged perpetrator of the misconduct) does not want to cooperate with the whistleblower as much. Wallmeier (2019) finds that cooperation is hurt most when these false whistleblowing reports are most likely to occur – when the manager doesn't know the whistle was blown until after making cooperation decisions and when the employee is provided with insurance against retaliation for blowing the whistle.

Further, I test my theory in a setting in which (1) the group size is relatively small, (2) neither the misconduct nor the whistleblowing directly help or harm the other employees in the organization, and (3) the employees have a collegial relationship with one another rather than a strong positive or strong negative relationship. These characteristics are common in practice. For example, Thompson (2008) indicates that the modal group size for work groups is five people, most whistleblowing reports are for smaller acts of misconduct and, thus, neither the misconduct nor the whistleblowing would generally have a direct impact on other employees in the organization (ECI 2018), and, while employees may have a collegial relationship with their co-workers, they only view 15% of their co-workers as real friends and 2% as enemies (Olivet 2018). However, changes to these setting characteristics may interact with my results and establish boundary conditions for my theory, which I discuss in the subsequent paragraph.

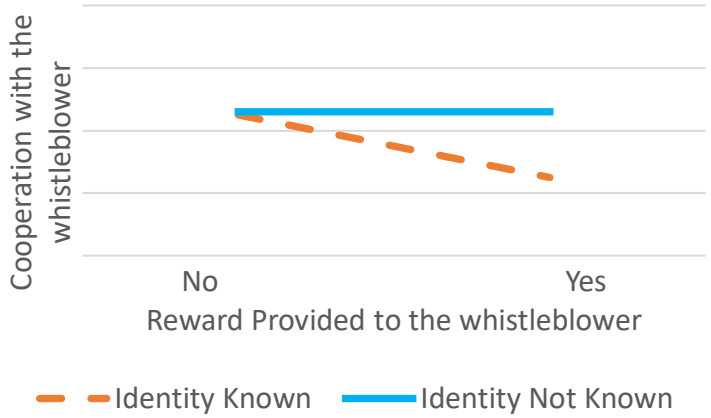
Related to group size, Lickel et al. (2000) do not find an effect of group size on perceptions of viewing the group collectively as one entity, but they only examine group sizes up to 10 people. A sufficiently large group could possibly lead employees to not view their co-workers as a collective group, which could reduce the whistleblower effect and establish a boundary condition for my theory. Related to whether the misconduct or blowing the whistle helps or hurts other employees, if an employee committed misconduct that directly benefitted their co-workers, blowing the whistle would likely increase the magnitude of the whistleblower effect, because the benefit would be removed. In contrast, if the misconduct directly harmed other co-workers, then blowing the whistle would likely decrease the magnitude of the whistleblower effect (and also decrease the duplicating effect to neutral employees). Finally, related to relationship strength, while a strong relationship between an employee and the whistleblower could decrease the whistleblower effect, it is interesting to note that prior

qualitative research finds that whistleblowers report that even co-workers they viewed as close friends shunned them after they blew the whistle (Kenny 2018). I do not directly test these setting characteristics in my study, but I encourage future research to explore these and other potential boundary conditions that could help further our understanding of the effects of whistleblowing programs on subsequent cooperation after the whistle is blown.

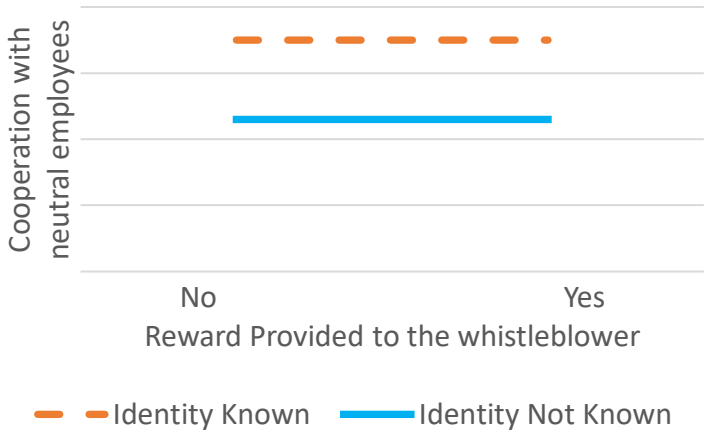
FIGURES AND TABLES

Figure 1: The expected predictions for the effects of a whistleblowing program with (or without) a reward provided to the whistleblower and when the whistleblower's identity is known or not known on cooperation with the whistleblower and neutral employees.

Panel A:



Panel B:



Panel A shows the prediction for Hypotheses 1a and 1b, that when employees know the whistleblower's identity, they will choose to cooperate with the whistleblower less when the whistleblower receives a reward relative to when no reward is provided for blowing the whistle. In contrast, when employees do not know the whistleblower's identity, providing a reward to the whistleblower will not negatively influence employees' cooperation with their co-workers (demonstrated by the flat solid lines in both Panels A and B).

Panel B combined with the Identity Not Known line in Panel A shows the prediction for Hypothesis 2, that the level of cooperation with the group is lower when the identity of the whistleblower is protected, relative to a neutral employee whose identity is known.

Figure 2: Experimental Timeline – Main Experiment

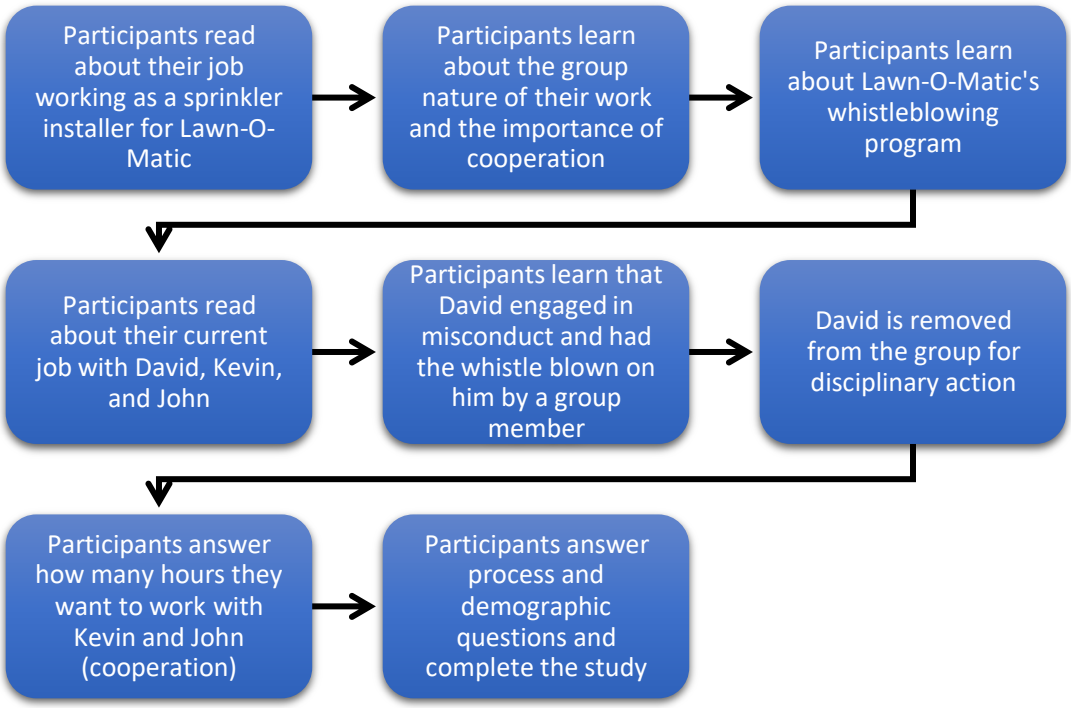


Figure 2 presents the experimental timeline for participants in the main experiment.

Figure 3: Results from my main experiment for how many hours participants choose to work with (cooperate) the whistleblower (Panel A) and the neutral employee (Panel B), by condition.

Panel A:

Panel B:

Participants learn that they have about 30 hours of work left on their current job, and they indicate how much they want to cooperate with each group member by allocating the 30 hours between working with Kevin (the whistleblower), working with John (the neutral co-worker), or working on their own (note that only participants in the *Identity Known* conditions know that Kevin is the whistleblower and that John is the neutral co-worker).

Panel A shows the number of hours participants allocated to work with the whistleblower (Kevin), by condition.

Panel B shows the number of hours participants allocated to work with the neutral co-worker (John), by condition.

Table 1: Descriptive Statistics and Test of the Whistleblower Effect – Main Experiment

Panel A: Means [standard deviations] for Number of Hours Worked with the Whistleblower, by condition

	Identity Not Known *(Participants do not know if this is the whistleblower or the neutral employee)*	Identity Known *(Participants know this is the whistleblower)*
Reward Absent	10.265 [2.72] *n = 34*	9.299 [4.82] *n = 77*
Reward Present	10.447 [2.63] *n = 38*	7.782 [4.18] *n = 78*

Panel B: Means [standard deviations] for Number of Hours Worked with the Neutral Employee, by condition

	Identity Not Known *(Participants do not know if this is the whistleblower or the neutral employee)*	Identity Known *(Participants know this is the neutral employee)*
Reward Absent	10.265 [2.72] *n = 34*	12.338 [5.20] *n = 77*
Reward Present	10.421 [2.66] *n = 38*	12.590 [4.31] *n = 78*

Panel C: Test of the Whistleblower Effect

Comparison	**df**	**t-statistic**	**p-value**
Hours with whistleblower vs. neutral employee when Identity is Known and Reward is Absent	76	3.09	**0.001**

Panel A presents descriptive statistics for the number of hours participants choose to allocate (out of 30) to work with the whistleblower, by condition.

Panel B presents descriptive statistics for the number of hours participants choose to allocate (out of 30) to work with the neutral Employee, by condition.

Panel C presents the test of the whistleblower effect, examining whether participants desire to cooperate less with a whistleblower than a neutral employee, absent my manipulations.

One-tailed p-values are indicated in **bold** face (two-tailed otherwise).

Table 2: Test of the Reward Effect and Moderating role of Identity Known on Hours with the Whistleblower and Neutral Employee (Hypothesis 1) – Main Experiment

Panel A: Planned Comparison Tests for the Number of Hours Worked with the Whistleblower			
Comparison	**df**	**t-statistic**	**p-value**
Effect of Reward given Identity Known (H1a)	153	2.09	**0.019**
Effect of Reward given Identity Not Known (H1b)	70	0.29	0.773
Effect of Identity Known given Reward Absent	109	1.09	0.277
Effect of Identity Known given Reward Present	114	3.60	**<0.001**

Panel B: Planned Comparison Tests for the Number of Hours Worked with the Neutral Employee			
Comparison	**df**	**t-statistic**	**p-value**
Effect of Reward given Identity Known	153	0.33	0.743
Effect of Reward given Identity Not Known (H1b)	70	0.25	0.806
Effect of Identity Known given Reward Absent (H2)	109	2.19	**0.015**
Effect of Identity Known given Reward Present (H2)	114	2.84	**0.003**

Panel C: Planned Comparison Test for the Average Number of Hours Worked with the Whistleblower and the Neutral Employee when Identity is Not Known			
Comparison	**df**	**t-statistic**	**p-value**
Effect of Reward given Identity Not Known (H1b)	70	0.27	0.790

Panel A presents the results of planned comparison tests for the number of hours worked with the whistleblower.

Panel B presents the results of planned comparison tests for the number of hours worked with the neutral employee. Note that Panel B also includes two tests that provide support for Hypothesis 2.

Panel C presents the results of a planned comparison test for the average number of hours worked with the whistleblower and the neutral employee when the whistleblower's identity is not known (i.e., [hours with the whistleblower + hours with the neutral employee] / 2). Note that in the *Identity Not Known* conditions, the whistleblower and the neutral employee are indistinguishable from one another to participants.

Table 3: Test of the Interactive Nature of Hypothesis 1 when Considering Cooperation with the Whistleblower – Main Experiment

Panel A: Contrast Testing					
Source	**SS**	**df**	**MS**	**F-statistic**	**p-value**
Contrast	241.268	1	241.268	14.906	<0.001
Residual between-cells variance	12.317	2	6.159	0.380	0.684
Total between-cells variance	253.585	3	84.528	5.222	0.002
Error	3609.437	223	16.186		
Total	3863.022	226			

Panel B: Effect Size Metrics	
Metric	**Value**
R	0.972
r^2 – proportion of between-cells variance explained by the contrast	0.945
q^2 – proportion of between-cells variance not explained by the contrast	0.055
Power Loss Index - proportion of statistical power relative to an equal-n design	1.149

Panel C: ANOVA					
Source	**SS**	**df**	**MS**	**F-statistic**	**p-value**
Reward	21.825	1	21.825	1.35	0.247
Identity Known	161.728	1	161.728	9.99	0.002
Reward*Identity Known	35.416	1	35.416	2.19	**0.070**
Error	3609.437	223	16.186		
Total	3863.022	226			

Panel A presents the results of my planned contrast test following Guggenmos et al. (2018) using contrast weights of +1, +1, +1, −3 for the following respective conditions: Identity Not Known / Reward Absent, Identity Not Known / Reward Present, Identity Known / Reward Absent, Identity Known / Reward Present.

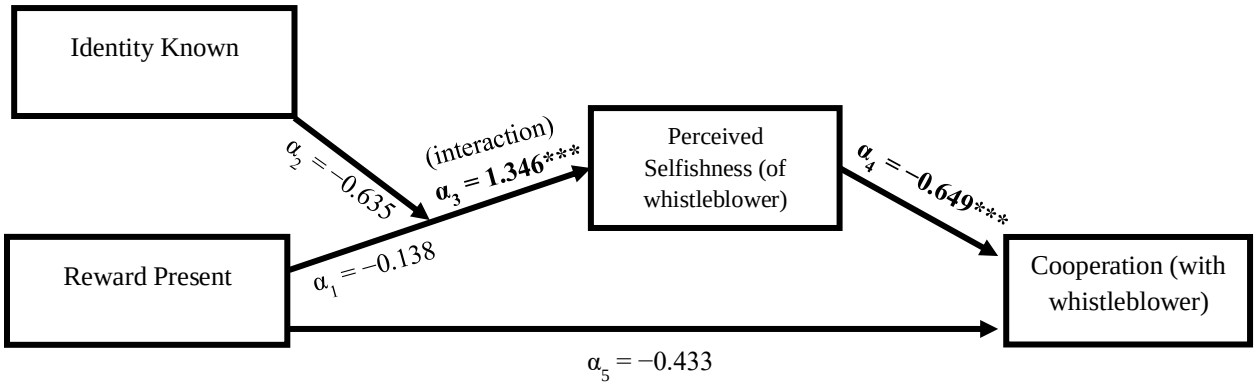
Panel B presents the effect size metrics of the contrast testing in Panel B, following Guggenmos et al. (2018).

Panel C presents the results of my ANOVA examining the effect of Identity Known vs. Not Known and Reward Present vs. Absent on the number of hours participants allocate to cooperate with the whistleblower.

One-tailed p-values are indicated in **bold** face (two-tailed otherwise).

Table 4: Moderated Mediation Analysis – Main Experiment

Panel A: Moderated Mediation Model



Panel B: Bootstrap Results				
	Effect	**SE**	**Lower 90% CI**	**Upper 90% CI**
Indirect effect when Identity Not Known	0.089	0.191	−0.219	0.411
Indirect effect when Identity Known	−0.784	0.280	−1. 276	−0.365

Panel C: Index of Moderated Mediation				
	Index	**SE**	**Lower 90% CI**	**Upper 90% CI**
Difference between indirect effects	−0.873	0.354	−1.503	−0.347

Panel A presents my moderated mediation model graphically. The numbers on the arrows represent the coefficients from the following system of equations:

(1) Perceived Selfishness = α_1 Reward Present + α_2 Identity Known + α_3 Reward Present*Identity Known + ε_1

(2) Cooperation = α_4 Perceived Selfishness + α_5 Reward Present + ε_2

Panel B presents the results of my bootstrap tests following Hayes (2018), with bias-corrected confidence intervals.

Panel C presents the results of the index of moderated mediation which tests the difference between the conditional indirect effects (e.g., when identity is known vs. when identity is not known).

*, **, and *** denote two-tailed significance (**one-tailed if bold**) at 10%, 5%, and 1%, respectively.

Table 5: Tests of Identity Not Known Reducing overall group cooperation (Hypothesis 2) – Main Experiment and Follow-up Experiment

Panel A: Means [standard deviations] for Cooperation and Process Measure, by condition				
	(Main Experiment)		**(Follow-up Experiment)**	
Condition	**Cooperation**	**Normal to Blow Whistle**	**Cooperation**	**All Blow Whistle**
Identity Not Known	10.347	5.444	1.731	4.731
	[2.67]	[1.09]	[1.37]	[1.30]
	n = 72	n = 72	n = 78	n = 78
Identity Known	12.465	4.697	2.449	3.872
	[4.76]	[1.44]	[0.98]	[1.47]
	n = 155	n = 155	n = 78	n = 78

Panel B: The Effects of Identity Known on Cooperation and Process Measure				
	(Main Experiment)		**(Follow-up Experiment)**	
Identity Not Known vs. Identity Known	**Cooperation**	**Normal to Blow Whistle**	**Cooperation**	**All Blow Whistle**
df	225	225	154	154
t-stat	3.522	3.910	3.763	3.869
p-value	**< 0.001**	**< 0.001**	**< 0.001**	**< 0.001**

Panel A presents the summary statistics from the main experiment and a follow-up experiment testing Hypothesis 2, that employees desire to cooperate with everyone in their group less when the whistleblower's identity is not known relative to when it is known. The first two columns are from the main experiment and the last two columns are from the follow-up experiment.

Panel B presents t-tests comparing cooperation and my process measures across the two Identity Known conditions. As in Panel A, the first two columns are from the main experiment, and the last two columns are from the follow-up experiment.

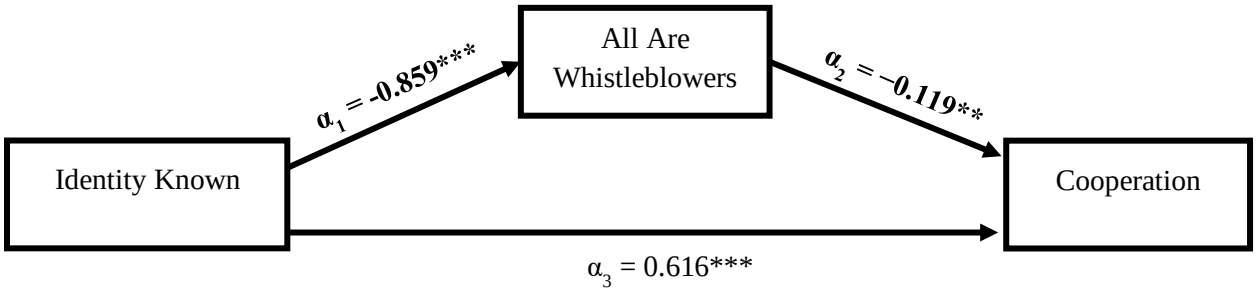
In the main experiment, cooperation (column 1) is measured by the number of hours participants select to work with the neutral employee (John). The process measure question from the main experiment (column 2) asks participants to rate their agreement with the following: "If an employee at Lawn-O-Matic observes misconduct, it is normal for them to blow the whistle."

In the follow-up experiment, cooperation (column 3) is measured by how many current group members participants select to continue working with on the next job (ranges from 0 to 3). The process measure question from the main experiment (column 4) asks participants to rate their agreement with the following: "All of my group members are likely to be whistleblowers in the future."

One-tailed p-values are indicated in **bold** face (two-tailed otherwise).

Table 6: Mediation Analysis – Follow-up Experiment

Panel A: Mediation Model



Panel B: Bootstrap Results

	Effect	SE	Lower 90% CI	Upper 90% CI
Indirect effect	0.102	0.067	0.006	0.222

Panel A presents my mediation model graphically. The numbers on the arrows represent the coefficients from the following system of equations:

(1) All Are Whistleblowers = α_1 IdentityKnown + ε_1

(2) Cooperation = α_2 All Are Whistleblowers + α_3 Identity Known + ε_2

Panel B presents the results of my bootstrap tests following Hayes (2018), with bias-corrected confidence intervals.

*, **, and *** denote two-tailed significance (**one-tailed if bold**) at 10%, 5%, and 1%, respectively.

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APPENDIX A: EXPERIMENTAL MATERIAL EXCERPTS

Panel A: *Whistleblowing program for Lawn-O-Matic, including the manipulations*

Whistleblowing Program

Because there are over 100 employees in the sprinkler installation division for Lawn-O-Matic, your manager is not able to efficiently monitor everyone to ensure that they all comply with company policies and ethical practices. As such, Lawn-O-Matic has a whistleblowing policy in place requesting that if anyone views any type of misconduct among their co-workers, they should report it to management (i.e., "blow the whistle"). Some types of misconduct employees may observe that management would not be able to easily detect include the following: reporting more hours worked than actually worked, using company funds for personal expenses, charging customers more money for additional work and pocketing the extra money, etc. When misconduct occurs, management takes action against the employee who engaged in the misconduct.

Shown to Reward Absent conditions:
Management encourages all employees to report whenever they observe misconduct but provides no monetary incentives for doing so.
Shown to Reward Present conditions:
Management encourages all employees to report whenever they observe misconduct and provides a reward if observed misconduct is reported. Specifically, if someone observes a co-worker engaging in misconduct and reports it to management, they will receive a $300 reward from the company.

Shown to Identity Not Known conditions:
If misconduct is reported, management does not disclose the identity of the whistleblower to the other employees.

Participants in the Identity Known Conditions either saw the following:
If misconduct is reported, management discloses the identity of the whistleblower to the other employees.
Or they saw the manipulation for the Identity Not Known conditions, then later read the following about Kevin (the whistleblower):
While Lawn-O-Matic does not disclose the identity of whistleblowers, because Kevin was the one working with David when the misconduct occurred, you know that Kevin was the one who observed and reported David for misconduct.

Panel B: *Dependent Variable – Main Experiment*

With David being removed from your group, you need to allocate how much of your remaining time on this job you want to work with the other group members, Kevin and John, and how much time you want to work on your own. You estimate about 30 more hours of work on this job.

Please allocate how many of the 30 hours you want to work with the other group members and how many hours you want to work on your own. Note that the total must equal 30.

Hours to work with Kevin:	0	hours
Hours to work with John:	0	hours
Hours to work on your own:	0	hours
Total	0	hours

APPENDIX B: EXPERIMENTAL INSTRUMENT – MAIN EXPERIMENT

{Note that text in green was not displayed to participants}

Consent Form

We are researchers at the University of Illinois. You are being invited to participate in a research study. The purpose of the study is to better understand people's preferences and decisions in organizations. In this study you will imagine that you are an employee at a hypothetical company. You will read information about your job at the company and answer various questions about decisions you make as an employee. Although your participation in this research may not benefit you personally, it will help us understand people's preferences and decisions in organizations. You must be at least 18 years old to participate. Your participation is completely voluntary and you may stop the study at any time without consequences. To the best of our knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life. Your response is completely anonymous. We will not collect any identification information from you (e.g., we will not collect your name, social security number, driver's license number, etc.). Your participation in this study should take about 15 minutes.

Faculty, students, and staff who may see your responses will maintain confidentiality to the extent of laws and university policies. Personal identifiers will not be published or presented.

You will receive 0.5% extra credit for participating in this study as long as you respond with coherent answers that address the questions being asked.

If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact Laura Wang at 217-265-5402 or via email at lauraww@illinois.edu. Alternatively, you can direct any questions about your rights as a participant in this study or any concerns or complaints to the University of Illinois Office for the Protection of Research Subjects at 217-333-2670 or via email at irb@illinois.edu.

Your willingness to proceed will be taken as evidence of your consent to participate in this study.

If you choose to participate, please continue to the next page of the study. Thank you!

(If desired, you may print the IRB consent form here.)

{Page Break}

Study Overview

Thank you for participating in our study. In this study you will imagine that you are an employee for a company, Lawn-O-Matic Inc. You will answer various questions, including free-response questions, about decisions you make in this capacity. However, no related work experience is required.

It is important that you read each question carefully before providing a response. You will receive extra credit for participating in this study **as long as you respond with coherent answers that address the questions being asked**. This study should take about 15 minutes.

We require that you do not discuss the content of this study with fellow students. Communication among students will jeopardize what we can learn from this study.

Thank you again for your participation.

I understand that to receive extra credit I have to respond with coherent answers that address the questions being asked.

- Yes
- No

I understand that I cannot discuss the content of this study with fellow students. Doing so will jeopardize the study.

- Yes
- No

{Page Break}

Your Job

Imagine that you are an employee at Lawn-O-Matic Inc., a large landscaping company in the United States. Lawn-O-Matic focuses on providing high-quality work and maintains a high standard of integrity in its business operations, including customer and employee relations.

You work in the sprinkler installation division at Lawn-O-Matic, which employs about 100 employees who install sprinkler systems designed to water grass, bushes, and flowers at commercial and residential properties. As part of your job, you work together with other employees in groups of three to seven people, depending on the size of the job. The typical job takes about one week to complete, after which employees are assigned to new jobs.

When you work on a job, you are best able to efficiently install a high-quality sprinkler system when you cooperate with your group members. Specifically, you can cooperate with your group members to design a plan for the sprinkler system, dig trenches, bury the water pipes, install sprinkler heads and drains throughout the yard, adjust each sprinkler head to ensure the whole yard is watered evenly, fill in the trenches with dirt, and clean up the yard so that grass, bushes, trees, and flowers can be planted. These tasks generally go much faster when employees cooperate while working together. As long as all employees working together cooperate, then you are able to get the job completed faster and with higher quality than if employees work separately. However, if an employee you are working with does not cooperate, then the job will take longer, and you will have to work even harder than if you had worked on your own.

You are compensated by the job, such that you make more money when your group works more efficiently. You are happy with your compensation, and Lawn-O-Matic provides great benefits compared to other companies in the industry. Overall, you enjoy your job, and your employer treats you and other employees well.

Please answer the following questions based on what you read above about your job at Lawn-O-Matic:

In a couple of sentences, please describe Lawn-O-Matic.

In a couple of sentences, please describe your job at Lawn-O-Matic.

In a couple of sentences, please describe the pros and cons of cooperating with other employees in your group.

{Page Break}

Whistleblowing Policy

Because there are over 100 employees in the sprinkler installation division for Lawn-O-Matic, your manager is not able to efficiently monitor everyone to ensure that they all comply with company policies and ethical practices. As such, Lawn-O-Matic has a whistleblowing policy in place requesting that if anyone views any type of misconduct among their co-workers, they should report it to management (i.e., “blow the whistle”). Some types of misconduct employees may observe that management would not be able to easily detect include the following: reporting more hours worked than actually worked, using company funds for personal expenses, charging customers more money for additional work and pocketing the extra money, etc. When misconduct occurs, management takes action against the employee who engaged in the misconduct.

{Shown to Reward Absent conditions}
Management encourages all employees to report whenever they observe misconduct but provides no monetary incentives for doing so.

{Shown to Reward Present conditions}
Management encourages all employees to report whenever they observe misconduct and provides a reward if observed misconduct is reported. Specifically, if someone observes a co-worker engaging in misconduct and reports it to management, they will receive a $300 reward from the company.

{Shown to Identity Not Known conditions and Identity Known by Inference Conditions}
If misconduct is reported, management does not disclose the identity of the whistleblower to the other employees.

{Shown to Identity Known by Management Conditions}
If misconduct is reported, management discloses the identity of the whistleblower to the other employees.

In a couple of sentences, please describe Lawn-O-Matic's whistleblowing policy.

Who is responsible to blow the whistle at Lawn-O-Matic?

- Managers
- Anyone who observes misconduct
- Customers

How large is the incentive for blowing the whistle?

- $0 (e.g., not provided)
- $20
- $100
- $300
- $500

Does management disclose the identity of the whistleblower?

- Yes
- No

{Page Break}

Current Job

You are currently working on a job with four people in the group: David, Kevin, John, and you. This work group has been typical of other groups you have worked with, and, while you don't know each other very well, you all seem to get along well with one another.

After working on the job for a few days, your manager lets you know that David is being removed from the group to face disciplinary action due to misconduct that David engaged in. You learn that one of your group members observed the misconduct and that they chose to blow the whistle. You and the other employee did not observe the misconduct.

{Shown to Reward Absent / Identity Not Known condition}
Because Lawn-O-Matic does not disclose the identity of whistleblowers, you do not know if it was Kevin or John that observed and reported David for misconduct.

{Shown to Reward Present / Identity Not Known condition}
Because Lawn-O-Matic does not disclose the identity of whistleblowers, you do not know if it was Kevin or John that observed and reported David for misconduct. Whoever did report the misconduct will receive a $300 reward for doing so.

{Shown to Reward Absent / Identity Known by Management condition}
Because Lawn-O-Matic discloses the identity of whistleblowers, you know that Kevin was the one who observed and reported David for misconduct.

{Shown to Reward Present / Identity Known by Management condition}
Because Lawn-O-Matic discloses the identity of whistleblowers, you know that Kevin was the one who observed and reported David for misconduct. Kevin will receive a $300 reward for doing so.

{Shown to Reward Absent / Identity Known by Inference condition}
While Lawn-O-Matic does not disclose the identity of whistleblowers, because Kevin was the one working with David when the misconduct occurred, you know that Kevin was the one who observed and reported David for misconduct.

{Shown to Reward Present / Identity Known by Inference condition}
While Lawn-O-Matic does not disclose the identity of whistleblowers, because Kevin was the one working with David when the misconduct occurred, you know that Kevin was the one who observed and reported David for misconduct. Kevin will receive a $300 reward for doing so.

Who engaged in misconduct?

- David
- Kevin
- John

Who reported the misconduct (e.g., blew the whistle)?

- David
- Kevin
- John
- I don’t know because Lawn-O-Matic does not disclose the identity of whistleblowers
  {The last option was only included for those in the Identity Not Known conditions}

{Page Break}

{Note that the display order of this page and the next page was randomized}

{Shown to Reward Absent / Identity Not Known condition}
In summary, you know that:

- David committed misconduct and someone in your group blew the whistle on him.
- You did not observe the misconduct and neither did the other group member who did not blow the whistle (Kevin or John).
- You do not know if it was Kevin or John, but one of the other group members observed the misconduct and blew the whistle on David.

{Shown to Reward Present / Identity Not Known condition}
In summary, you know that:

- David committed misconduct and someone in your group blew the whistle on him.
- You did not observe the misconduct and neither did the other group member who did not blow the whistle (Kevin or John).
- You do not know if it was Kevin or John, but one of the other group members observed the misconduct and blew the whistle on David.
- Whoever did blow the whistle will receive a $300 reward for blowing the whistle.

{Shown to Reward Absent / Identity Known conditions}
In summary, you know that:

- David committed misconduct and someone in your group blew the whistle on him.
- You did not observe the misconduct and neither did John.
- Kevin is the group member who observed the misconduct and blew the whistle on David.

{Shown to Reward Present / Identity Known conditions}
In summary, you know that:

- David committed misconduct and someone in your group blew the whistle on him.
- You did not observe the misconduct and neither did John.
- Kevin is the group member who observed the misconduct and blew the whistle on David.
- Kevin will receive a $300 reward for blowing the whistle.

For the remaining time spent on the current job, you can choose how much you want to cooperate with the other members of your group, Kevin and John.

How willing are you to cooperate with Kevin?

Extremely unwilling	Moderately unwilling	Slightly unwilling	Neither willing nor unwilling	Slightly willing	Moderately willing	Extremely willing
○	○	○	○	○	○	○

{Page Break}

{Summary information repeated at the top of the page}

For the remaining time spent on the current job, you can choose how much you want to cooperate with the other members of your group, Kevin and John.

How willing are you to cooperate with John?

Extremely unwilling	Moderately unwilling	Slightly unwilling	Neither willing nor unwilling	Slightly willing	Moderately willing	Extremely willing
○	○	○	○	○	○	○

{Page Break}

{Summary information repeated at the top of the page}

With David being removed from your group, you need to allocate how much of your remaining time on this job you want to work with the other group members, Kevin and John, and how much time you want to work on your own. You estimate about 30 more hours of work on this job.

Please allocate how many of the 30 hours you want to work with the other group members and how many hours you want to work on your own. Note that the total must equal 30.

Hours to work with Kevin:	0	hours
Hours to work with John:	0	hours
Hours to work on your own:	0	hours
Total	0	hours

{Page Break}

{Summary information repeated at the top of the page}

Based on what you know, please answer the following questions about your job and your group members.
{Note that whether participants saw questions about Kevin or John first was randomized}

Please answer the following questions about Kevin:

	-5 Extremely selfish	-4	-3	-2	-1	0	1	2	3	4	5 Extremely altruistic (selfless)
How selfish or altruistic is Kevin as a person?	○	○	○	○	○	○	○	○	○	○	○
How selfish or altruistic was Kevin on the job?	○	○	○	○	○	○	○	○	○	○	○
How selfish or altruistic were Kevin's motives on the job?	○	○	○	○	○	○	○	○	○	○	○

Please answer the following questions about John:

	-5 Extremely selfish	-4	-3	-2	-1	0	1	2	3	4	5 Extremely altruistic (selfless)
How selfish or altruistic is John as a person?	○	○	○	○	○	○	○	○	○	○	○
How selfish or altruistic was John on the job?	○	○	○	○	○	○	○	○	○	○	○
How selfish or altruistic were John's motives on the job?	○	○	○	○	○	○	○	○	○	○	○

{Page Break}

{Summary information repeated at the top of the page}

Based on what you know, please answer the following questions about your job and your group members.

Please indicate how much you agree with each of the following statements:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Kevin is a trustworthy individual.	○	○	○	○	○	○	○
Kevin is a team player.	○	○	○	○	○	○	○
John is a trustworthy individual.	○	○	○	○	○	○	○
John is a team player.	○	○	○	○	○	○	○

How willing do you think Kevin is to cooperate with you?

Extremely unwilling	Moderately unwilling	Slightly unwilling	Neither willing nor unwilling	Slightly willing	Moderately willing	Extremely willing
○	○	○	○	○	○	○

How willing do you think John is to cooperate with you?

Extremely unwilling	Moderately unwilling	Slightly unwilling	Neither willing nor unwilling	Slightly willing	Moderately willing	Extremely willing
○	○	○	○	○	○	○

Please indicate how much you agree with the following statements:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
If an employee at Lawn-O-Matic observes misconduct, it is normal for them to blow the whistle.	○	○	○	○	○	○	○
As an employee at Lawn-O-Matic, I would feel obligated to blow the whistle if I observed misconduct.	○	○	○	○	○	○	○

{Page Break}

{Summary information repeated at the top of the page}

Based on what you know, please answer the following questions about your job and your group members.

In your opinion, how serious do you suspect the misconduct is that David committed?

Not at all serious	Slightly serious	Moderately serious	Very serious	Extremely serious
○	○	○	○	○

In your opinion, how unethical do you suspect the misconduct is that David committed?

Not at all unethical	Slightly unethical	Moderately unethical	Very unethical	Extremely unethical
○	○	○	○	○

In your opinion, how cohesive or united is your group (after David was removed for committing misconduct)?

Not at all cohesive	Slightly cohesive	Moderately cohesive	Very cohesive	Extremely cohesive
○	○	○	○	○

How likely are you to leave Lawn-O-Matic and seek employment at a different company?

Extremely unlikely	Moderately unlikely	Slightly unlikely	Neither likely nor unlikely	Slightly likely	Moderately likely	Extremely likely
○	○	○	○	○	○	○

{Page Break}

{Summary information repeated at the top of the page}

In a couple of sentences, please indicate why you answered the previous questions about Kevin and John in the way you did (e.g., questions about how much you want to cooperate with them, how selfish or altruistic they are, how much you trust them, etc.).

{Page Break}

Please answer the following questions about the whistleblowing policy at Lawn-O-Matic:

What incentive was provided by Lawn-O-Matic to blow the whistle?

- A $300 reward if the whistle was blown on misconduct that occurred
- No incentive was provided

Did you know who the whistleblower was?

- Yes
- No

{Page Break}

{Only shown if "Yes" was selected on previous question}
How did you learn the identity of the whistleblower?

- Lawn-O-Matic discloses the identity of the whistleblower.
- Lawn-O-Matic does not disclose the identity of the whistleblower, but Kevin was the one working with David when the misconduct occurred.
- I did not learn the identity of the whistleblower.

{Page Break}

Your answers to the following questions should reflect your own demographic information and opinions (i.e., please do NOT answer the following questions from the perspective of a hypothetical employee at Lawn-O-Matic).

What is your age (in years)?

What is your gender?

- Male
- Female
- I prefer not to answer

What is your current year in school?

- Freshman
- Sophomore
- Junior
- Senior
- Graduate student

What is your major?

What is your current GPA?

What is your native language?

Do you currently have a job, or have you had a job in the past?

- Yes
- No

If yes, what is your current job (or was your most recent job)?

In your schooling or employment experience, have you ever observed another student or employee cheating or committing misconduct, and reported them?

- Yes
- No

In your schooling or employment experience, have you ever witnessed someone else report a student or employee for cheating or committing misconduct?

- Yes
- No

{Page Break}

{These questions were only shown to participants if they selected “Yes” on the applicable question on the previous page}

You indicated on the previous page that you have blown the whistle in the past on cheating or misconduct you observed. Please briefly describe the cheating or misconduct, who you blew the whistle on (e.g., co-worker, supervisor, classmates, etc.), why you chose to blow the whistle, and how the company and other employees responded to you. (Please do not disclose any identifying information of the individual who engaged in misconduct.)

You indicated on the previous page that in the past you have witnessed the whistle being blown on someone. Please briefly describe what you know about the cheating or misconduct, what the relation was between the whistleblower and the person who committed misconduct (e.g., co-workers, supervisor/employee, classmates, etc.), why you think they chose to blow the whistle, and how the whistleblower was treated by the other students or employees. (Please do not disclose any identifying information of the individual who engaged in misconduct or the individual who blew the whistle.)

{Page Break}

{Shown to Reward Absent / Identity Not Known condition}
In the hypothetical situation you responded to earlier, the person that blew the whistle (either Kevin or John) did not receive a reward for blowing the whistle. If the whistleblower were to have received a $300 reward for blowing the whistle, how would your level of cooperation with Kevin and John change?

{Shown to Reward Present / Identity Not Known condition}
In the hypothetical situation you responded to earlier, the person that blew the whistle (either Kevin or John) received a $300 reward for blowing the whistle. If the whistleblower were to not have received a reward for blowing the whistle, how would your level of cooperation with Kevin and John change?

{Shown to Reward Absent / Identity Known conditions}
In the hypothetical situation you responded to earlier, Kevin (the person who blew the whistle) did not receive a reward for blowing the whistle. If Kevin were to have received a $300 reward for blowing the whistle, how would your level of cooperation with Kevin and John change?

{Shown to Reward Present / Identity Known conditions}
In the hypothetical situation you responded to earlier, Kevin (the person who blew the whistle) received a $300 reward for blowing the whistle. If Kevin were to not have received a reward for blowing the whistle, how would your level of cooperation with Kevin and John change?

Cooperation with Kevin?

- I would increase my level of cooperation with Kevin
- I would decrease my level of cooperation with Kevin
- I would not change my level of cooperation with Kevin

Cooperation with John?

- I would increase my level of cooperation with John
- I would decrease my level of cooperation with John
- I would not change my level of cooperation with John

{Page Break}

Congratulations! You have completed the study. You will receive extra credit through the SONA system for participating as long as you answered the questions with coherent answers that addressed the questions being asked. Your extra credit will be processed within three business days of completion of the study.

Please refrain from sharing details of this study with other students as doing so will affect the usability of the data we collect. Thank you for participating.

{End of Study}

APPENDIX C: EXPERIMENTAL INSTRUMENT – FOLLOW-UP EXPERIMENT

{Note that text in green was not displayed to participants}

Consent Form

We are researchers at the University of Illinois. You are being invited to participate in a research study. The purpose of the study is to better understand people's preferences and decisions in organizations. In this study you will imagine that you are an employee at a hypothetical company. You will read information about your job at the company and answer various questions about decisions you make as an employee. Although your participation in this research may not benefit you personally, it will help us understand people's preferences and decisions in organizations. You must be at least 18 years old to participate. Your participation is completely voluntary and you may stop the study at any time without consequences. To the best of our knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life. Your response is completely anonymous. We will not collect any identification information from you (e.g., we will not collect your name, social security number, driver's license number, etc.). Your participation in this study should take about 15 minutes.

Faculty, students, and staff who may see your responses will maintain confidentiality to the extent of laws and university policies. Personal identifiers will not be published or presented.

You will receive 0.5% extra credit for participating in this study as long as you respond with coherent answers that address the questions being asked.

If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact Laura Wang at 217-265-5402 or via email at lauraww@illinois.edu. Alternatively, you can direct any questions about your rights as a participant in this study or any concerns or complaints to the University of Illinois Office for the Protection of Research Subjects at 217-333-2670 or via email at irb@illinois.edu.

Your willingness to proceed will be taken as evidence of your consent to participate in this study.

If you choose to participate, please continue to the next page of the study. Thank you!

(If desired, you may print the IRB consent form here.)

{Page Break}

Study Overview

Thank you for participating in our study. In this study you will imagine that you are an employee for a company, Lawn-O-Matic Inc. You will answer various questions, including free-response questions, about decisions you make in this capacity. However, no related work experience is required.

It is important that you read each question carefully before providing a response. You will receive extra credit for participating in this study **as long as you respond with coherent answers that address the questions being asked**. This study should take about 15 minutes.

We require that you do not discuss the content of this study with fellow students. Communication among students will jeopardize what we can learn from this study.

Thank you again for your participation.

I understand that to receive extra credit I have to respond with coherent answers that address the questions being asked.

- Yes
- No

I understand that I cannot discuss the content of this study with fellow students. Doing so will jeopardize the study.

- Yes
- No

{Page Break}

Your Job

Imagine that you are an employee at Lawn-O-Matic Inc., a large landscaping company in the United States. Lawn-O-Matic focuses on providing high-quality work and maintains a high standard of integrity in its business operations, including customer and employee relations.

You work in the sprinkler installation division at Lawn-O-Matic, which employs about 100 employees who install sprinkler systems designed to water grass, bushes, and flowers at commercial and residential properties. As part of your job, you work together with other employees in groups of three to seven people, depending on the size of the job. The typical job takes about one week to complete, after which employees are assigned to new jobs.

When you work on a job, the tasks can be completed by cooperating with your group members or working individually. Specifically, your group needs to design a plan for the sprinkler system, dig trenches, bury the water pipes, install sprinkler heads and drains throughout the yard, adjust each sprinkler head to ensure the whole yard is watered evenly, fill in the trenches with dirt, and clean up the yard so that grass, bushes, trees, and flowers can be planted. These tasks generally go faster when employees cooperate while working together, but they can also be completed working individually.

You are compensated by the job, such that you make more money when your group works more efficiently. You are happy with your compensation, and Lawn-O-Matic provides great benefits compared to other companies in the industry. Overall, you enjoy your job, and your employer treats you and other employees well.

Please answer the following questions based on what you read above about your job at Lawn-O-Matic:

In a couple of sentences, please describe Lawn-O-Matic.

In a couple of sentences, please describe your job at Lawn-O-Matic.

{Page Break}

Whistleblowing Policy

Because there are over 100 employees in the sprinkler installation division for Lawn-O-Matic, your manager is not able to efficiently monitor everyone to ensure that they all comply with company policies and ethical practices. As such, Lawn-O-Matic has a whistleblowing policy in place requesting that if anyone views any type of misconduct among their co-workers, they should report it to management (i.e., “blow the whistle”). Some types of misconduct employees may observe that management would not be able to easily detect include the following: reporting more hours worked than actually worked, using company funds for personal expenses, charging customers more money for additional work and pocketing the extra money, etc. When misconduct occurs, management takes action against the employee who engaged in the misconduct.

Management encourages all employees to report whenever they observe misconduct but provides no monetary incentives for doing so.

{Shown to Identity Not Known conditions}
If misconduct is reported, management does not disclose the identity of the whistleblower to the other employees.

{Shown to Identity Known conditions}
If misconduct is reported, management discloses the identity of the whistleblower to the other employees.

In a couple of sentences, please describe Lawn-O-Matic's whistleblowing policy.

Who is responsible to blow the whistle at Lawn-O-Matic?
- Managers
- Anyone who observes misconduct
- Customers

How large is the incentive for blowing the whistle?
- $0 (e.g., not provided)
- $20
- $100
- $300
- $500

Does management disclose the identity of the whistleblower?
- Yes
- No

{Page Break}

Current Job

You are currently working on a job with seven people in the group: David, Kevin, John, Mike, Jack, Will, and you. This work group has been typical of other groups you have worked with, and, while you don't know each other very well, you all seem to get along well with one another.

After working on the job for a few days, your manager lets you know that David is being removed from the group to face disciplinary action due to misconduct that David engaged in. You learn that one of your group members observed the misconduct and that they chose to blow the whistle. You and the other employees did not observe the misconduct.

{Shown to Identity Not Known conditions}
Because Lawn-O-Matic does not disclose the identity of whistleblowers, you do not know which of your coworkers observed and reported David for misconduct.

{Shown to Identity Known conditions}
Because Lawn-O-Matic discloses the identity of whistleblowers, you know that Kevin was the one who observed and reported David for misconduct.

Who engaged in misconduct?
- David
- Kevin
- John
- Mike
- Jack
- Will

Who reported the misconduct (e.g., blew the whistle)?
- David
- Kevin
- John
- Mike
- Jack
- Will
- I don't know because Lawn-O-Matic does not disclose the identity of whistleblowers {The last option was only included for those in the Identity Not Known condition}

{Page Break}

{Shown to Identity Not Known conditions}
In summary, you know that:

- David committed misconduct and someone in your group blew the whistle on him.
- You did not observe the misconduct and neither did the other group members who did not blow the whistle.
- You do not know if it was Kevin, John, Mike, Jack, or Will, but one of the other group members observed the misconduct and blew the whistle on David.

{Shown to Identity Known conditions}
In summary, you know that:

- David committed misconduct and someone in your group blew the whistle on him.
- You did not observe the misconduct and neither did the other group members who did not blow the whistle.
- Kevin is the group member who observed the misconduct and blew the whistle on David.

The next day, your manager approaches you to plan for the next job that you will start in about a week after you complete the current job. Your next job will require you to work in a smaller group with three other employees. Your manager asks if you prefer to work with Mike, Jack, and Will, or three other people who are not in your current group. What would you tell your manager?

- On the next job I prefer to work with Mike, Jack, and Will.
- On the next job I prefer to work with three other people who are not in the current group.
- I do not have any preference at all who I work with on the next job.
  {The order of the first two choices was randomized}

{Page Break}

{Summary information repeated at the top of the page}

Based on what you know, please answer the following questions.

Suppose that your manager gives you the choice of which three people you would like to work with on the next job. For your next job working with three other people, which of your current co-workers, if any, or people not from your current group would you select to work with? (select 3 choices below)

- Kevin
- John
- Mike
- Jack
- Will
- Someone not from my current group
- Someone not from my current group
- Someone not from my current group

{Page Break}

For the rest of the current job, how much do you think your group will want to work with each other?

Far below average	Moderately below average	Slightly below average	Average	Slightly above average	Moderately above average	Far above average
○	○	○	○	○	○	○

How well do you think your group will cooperate for the remainder of the current job?

Not well at all	Slightly well	Moderately well	Very well	Extremely well
○	○	○	○	○

{Page Break}

{Summary information repeated at the top of the page}

Based on what you know, please answer the following questions.

Suppose you have to work 40 more hours on the current job, either on your own or working with one other group member at a time, how would you divide your time between working with each of them and working on your own?

On your own	0
Kevin	0
John	0
Mike	0
Jack	0
Will	0
Total	0

{Page Break}

On the previous page, why did you divide the time up the way that you did?

{Page Break}

{Summary information repeated at the top of the page}

Based on what you know, please answer the following questions.

Considering your group members from the current job, how likely do you think it is for each of them to closely scrutinize your actions?

	Extremely unlikely	Moderately unlikely	Slightly unlikely	Neither likely nor unlikely	Slightly likely	Moderately likely	Extremely likely
Kevin	○	○	○	○	○	○	○
John	○	○	○	○	○	○	○
Mike	○	○	○	○	○	○	○
Jack	○	○	○	○	○	○	○
Will	○	○	○	○	○	○	○

How difficult do you think the work is that you do at Lawn-O-Matic?

Extremely easy	Moderately easy	Slightly easy	Neither easy nor difficult	Slightly difficult	Moderately difficult	Extremely difficult
○	○	○	○	○	○	○

{Page Break}

{Summary information repeated at the top of the page}

Based on what you know, please answer the following questions.

How likely do you think your current group is to look over your shoulder while you are working?

Extremely unlikely	Moderately unlikely	Slightly unlikely	Neither likely nor unlikely	Slightly likely	Moderately likely	Extremely likely
○	○	○	○	○	○	○

If you accidentally use the company credit card for a personal purchase (e.g., your lunch), how likely do you think it is that one of your coworkers will blow the whistle on you if they notice?

Extremely unlikely	Moderately unlikely	Slightly unlikely	Neither likely nor unlikely	Slightly likely	Moderately likely	Extremely likely
○	○	○	○	○	○	○

Please indicate your agreement with the following statement: All of my group members are likely to be whistleblowers in the future.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
○	○	○	○	○	○	○

{Shown to participants in Identity Known condition}

How likely would you be to work with Kevin instead of one of the other co-workers?

Extremely unlikely	Moderately unlikely	Slightly unlikely	Neither likely nor unlikely	Slightly likely	Moderately likely	Extremely likely
○	○	○	○	○	○	○

{Page Break}

{Summary information repeated at the top of the page}

Based on what you know, please answer the following questions.

Please indicate your agreement with the following statement: I felt like the socially acceptable thing to do was to work with my group members.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
○	○	○	○	○	○	○

{Page Break}

Please answer the following question based on the scenario you read:

Did you know who the whistleblower was?

- Yes
- No

{Page Break}

{Summary information repeated at the top of the page}

Based on what you know, please answer the following questions.

{Shown to participants in Identity Not Known condition}
If you knew who the whistleblower was, how would your willingness to work with your group members change?

- It would stay the same
- I would work with my group members more
- I would work with my group members less
  {The ordering of these answers was randomized}

{Shown to participants in Identity Known condition}
If you did not know who the whistleblower was, how would your willingness to work with your group members change?

- It would stay the same
- I would work with my group members more
- I would work with my group members less
  {The ordering of these answers was randomized}

Please indicate why you responded the way you did on the previous question.

{Page Break}

Your answers to the following questions should reflect your own demographic information and opinions (i.e., please do NOT answer the following questions from the perspective of a hypothetical employee at Lawn-O-Matic).

What is your age (in years)?

What is your gender?

- Male
- Female
- I prefer not to answer

What is your current year in school?

- Freshman
- Sophomore
- Junior
- Senior
- Graduate student

What is your major?

What is your current GPA?

What is your native language?

Do you currently have a job, or have you had a job in the past?

- Yes
- No

If yes, what is your current job (or was your most recent job)?

In your schooling or employment experience, have you ever observed another student or employee cheating or committing misconduct, and reported them?

- Yes
- No

In your schooling or employment experience, have you ever witnessed someone else report a student or employee for cheating or committing misconduct?

- Yes
- No

{Page Break}

{These questions were only shown to participants if they selected “Yes” on the applicable question on the previous page}

You indicated on the previous page that you have blown the whistle in the past on cheating or misconduct you observed. Please briefly describe the cheating or misconduct, who you blew the whistle on (e.g., co-worker, supervisor, classmates, etc.), why you chose to blow the whistle, and how the company and other employees responded to you. (Please do not disclose any identifying information of the individual who engaged in misconduct.)

You indicated on the previous page that in the past you have witnessed the whistle being blown on someone. Please briefly describe what you know about the cheating or misconduct, what the relationship was between the whistleblower and the person who committed misconduct (e.g., co-workers, supervisor/employee, classmates, etc.), why you think they chose to blow the whistle, and how the whistleblower was treated by the other students or employees. (Please do not disclose any identifying information of the individual who engaged in misconduct or the individual who blew the whistle.)

{Page Break}

Your answers to the following questions should reflect your own demographic information and opinions (i.e., please do NOT answer the following questions from the perspective of a hypothetical employee at Lawn-O-Matic).

How likely would you be to work with someone who closely monitors your actions?

Extremely unlikely	Moderately unlikely	Slightly unlikely	Neither likely nor unlikely	Slightly likely	Moderately likely	Extremely likely
○	○	○	○	○	○	○

In general, how much do you prefer working with others versus working on your own?

On your own						With others
1	2	3	4	5	6	7
○	○	○	○	○	○	○

Please indicate your agreement with the following statement: A group should be held accountable for the actions of one person in the group.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
○	○	○	○	○	○	○

How serious do you think it is if a coworker stays clocked in for 15 minutes longer each day than they actually work (and thus gets paid a little extra each day)?

Not at all serious	Slightly serious	Moderately serious	Very serious	Extremely serious
○	○	○	○	○

In general, who would you prefer to work with?

- a co-worker who had blown the whistle in the past
- a co-worker who had not blown the whistle in the past

{Page Break}

Please indicate why you would prefer to work with _____ over _____.
{The blanks were filled in based on what participants selected on the previous question}

{Page Break}

Congratulations! You have completed the study. You will receive extra credit through the SONA system for participating as long as you answered the questions with coherent answers that addressed the questions being asked. Your extra credit will be processed within five business days of completion of the study.

Please refrain from sharing details of this study with other students as doing so will affect the usability of the data we collect. Thank you for participating.

APPENDIX D: IRB APPROVAL LETTER

ILLINOIS

OFFICE OF THE VICE CHANCELLOR FOR RESEARCH

Office for the Protection of Research Subjects
805 W. Pennsylvania Ave., MC-095
Urbana, IL 61801-4822

Notice of Exempt Determination

October 25, 2019

Principal Investigator	Wei (Laura) Wang
CC	Ryan Sommerfeldt
Protocol Title	*RS 1*
Protocol Number	19790
Funding Source	Institute of Management Accountants
Review Category	Exempt 3 (i)
Amendment Requested	• Updating research procedures and materials to recruit participants through the Accountancy Research Lab • Updating the online survey • Updating the funding information
Amendment Determination Date	October 25, 2019
Closure Date	May 14, 2024

This letter authorizes the use of human subjects in the above protocol. The University of Illinois at Urbana-Champaign Office for the Protection of Research Subjects (OPRS) has reviewed your application and determined the criteria for exemption have been met.

The Principal Investigator of this study is responsible for:

- Conducting research in a manner consistent with the requirements of the University and federal regulations found at 45 CFR 46.
- Requesting approval from the IRB prior to implementing major modifications.
- Notifying OPRS of any problems involving human subjects, including unanticipated events, participant complaints, or protocol deviations.
- Notifying OPRS of the completion of the study.

Changes to an **exempt** protocol are only required if substantive modifications are requested and/or the changes requested may affect the exempt status.