ORIGINAL PAPER



Turning a Blind Eye to Team Members' Unethical Behavior: The Role of Reward Systems

Qiongjing Hu¹ · Hajo Adam² · Sreedhari Desai³ · Shenjiang Mo¹

Received: 12 December 2022 / Accepted: 8 December 2023 © The Author(s), under exclusive licence to Springer Nature B.V. 2024

Abstract

Organizations have increasingly relied on team-based reward systems to boost productivity and foster collaboration. Drawing on the literature on ethics and justice as well as appraisal theories of emotion, we examine how team-based reward systems can have an insidious side effect: They increase the likelihood that employees remain silent when observing a team member engage in unethical behavior. Across four studies adopting different methods, measures, and samples, we found consistent evidence that people are less likely to report (i.e., speak up or provide anonymous feedback about) a team member's unethical behavior in team-based than in individual-based reward systems. Furthermore, our research reveals that this effect is primarily driven by a decrease in the experience of moral anger, which subsequently leads to a decreased likelihood of reporting unethical behavior when it benefits the team rather than the individual. We do not find support for perceived indirect benefit or envy as alternative explanations, suggesting that the decision to report a team member's unethical behavior is not driven by calculative and selfish motives, but by moral motives. Finally, we establish that the effect is contingent on the observer and the perpetrator being members of the same team; it dissipates when the observer and the perpetrator are part of different teams. Our work contributes to research on reward systems and business ethics and provides practical implications for human resource practices.

Keywords Unethical behavior · Reward system · Peer reporting · Moral anger

Introduction

Team-based reward systems—i.e., systems that pay incentives and bonuses based on team rather than individual performance—have been on the rise (Garbers & Konradt, 2014; Nyberg et al., 2018). This trend, initially sparked

Shenjiang Mo mosj@zju.edu.cn

Qiongjing Hu qjhu@zju.edu.cn

Hajo Adam ha748@bath.ac.uk

Sreedhari Desai sreedharidesai@gmail.com

Published online: 16 January 2024

School of Management, Zhejiang University, No. 388 Yuhangtang Road, Hangzhou, China

- ² School of Management, University of Bath, Bath, UK
- ³ Kenan-Flagler Business School, The University of North Carolina at Chapel Hill, Chapel Hill, USA

by Japanese corporate successes, has now been widely embraced across various sectors in the United States, with a significant leap from a 59 percent adoption rate among Fortune 1000 companies in 1990 to an impressive 85 percent by 2005 (Garvey, 2002; Merriman, 2008). The rationale for this surge is anchored in the systems' capacity to cultivate collaboration and teamwork, align team objectives with overarching organizational goals, and stimulate a collective drive toward improvement (DeMatteo et al., 1998; Garbers & Konradt, 2014; Park & Kruse, 2013). Indeed, a recent meta-analysis confirms that team-based compensation correlates positively with outcomes like accuracy, productivity, revenue, creativity, and sales (Nyberg et al., 2018).

Despite these endorsements, there is a growing recognition that team-based reward systems may have complexities and unintended effects that merit deeper scrutiny. Earlier studies have raised concerns that such systems could inadvertently entrench undesirable behaviors while neglecting the behaviors they aim to promote (Bolch, 2007; Kerr, 1975). The most extensively discussed challenge is the propensity for these systems to dilute personal accountability



and foster social loafing—a phenomenon where individuals exert less effort when working in teams than alone (Karau & Williams, 1993; Latane & Nida, 1981). We shift the analytical lens from these performance-focused critiques to ethical considerations and investigate whether team-based rewards may inadvertently increase the likelihood of unethical behaviors going unreported, potentially engendering a culture of silence.

In particular, we draw from work on ethics, justice, and appraisal theories of emotion to explain why employees are less likely to report a team member's unethical behavior in team-based rather than individual-based reward systems. On the one hand, in individual-based reward systems, an employee's performance-enhancing unethical behavior benefits only the transgressor. Thus, it not only violates the norm of acting ethically but makes the playing field uneven by advantaging the transgressor relative to other employees. A team member witnessing the unethical behavior is therefore likely to experience moral anger and consequently blow the whistle. On the other hand, in team-based reward systems, an employee's performance-enhancing unethical behavior benefits not only the transgressor but also the other team members. As such, while it still violates the norm of acting ethically, it at least keeps the playing field level. A team member witnessing the unethical behavior is therefore less likely to experience moral anger and consequently less likely to blow the whistle.

To test these hypotheses, we conducted four complementary studies employing a blend of experimental and correlational approaches to balance internal and external validity. We operationalized the variables of team-based versus individual-based rewards and peer reporting in different ways, recruited participants from the United States and China, and executed a battery of supplementary analyses to ensure the robustness of our findings and rule out alternative explanations.

Our findings contribute to several literatures. First, we contribute to the literature on reward systems by exploring their ethics-related consequences. Most of the research on reward systems has focused on the direct effects of different types of reward systems on performance-related outcomes, such as productivity and cooperation (Condly et al., 2008; DeMatteo et al., 1998; Garbers & Konradt, 2014; Nyberg et al, 2018). Less work has investigated how reward systems and goal setting can inadvertently instigate unethical behavior (Harris & Bromiley, 2007; Ordonez et al., 2009). While that work has focused on the direct effects of reward systems on the likelihood of engaging in unethical behavior, we expand this focus by exploring their less obvious downstream consequences on employees' reactions once an unethical behavior occurs.

Second, we contribute to the literature on whistleblowing by identifying an important yet understudied institutional

antecedent—reward systems. Prior research has accumulated ample knowledge about the individual and situational characteristics such as gender, ethical ideology, ethical leadership, group cohesion, organizational climate, and rewards for whistleblowers that encourage or discourage employees to report moral transgressions (Andon et al., 2018; Ayagre & Aidoo-Buameh, 2014; Bergemann & Aven, 2023; Chiu & Erdener, 2003; Mayer et al., 2013; Miceli & Near, 1985, 1988). In contrast, we demonstrate that general human resource practices that are not specifically related to whistleblowing are also key determinants of peer reporting. Moreover, while fear of retaliation has been recognized as a major deterrent to whistleblowing (e.g., Mayer et al., 2013), our findings reveal that moral anger can serve as a prompter of whistleblowing, underscoring the potential of emotions to play a positive role in encouraging people to speak up. We elaborate on these and other implications in the general discussion.

Theoretical Grounding and Hypotheses Development

Reward Systems and Unethical Behavior

A fundamental problem that organizational scholars have wrestled with for several decades is that of motivating employees (Kanfer et al., 2017). One valuable tool for addressing this problem is the strategic implementation of reward systems, such as performance-based pay. Whether to employ individual-based or team-based reward systems has been a prominent debate: Individual-based rewards direct employees' focus toward their own achievements and, in the process, can deemphasize team goals, interfere with teamwork, and create an unhealthy culture of competition (De Dreu, 2007; Shea & Guzzo, 1987). Team-based rewards were designed to overcome these shortcomings. Although they can diminish a sense of ownership and personal responsibility, which may cause team members to engage in social loafing (Karau & Williams, 1993; Latane & Nida, 1981), they can also cue prosocial motivation to cooperate with other team members and enhance team performance (De Dreu et al., 2008; DeMatteo et al., 1998; Wageman, 2001).

The impact of reward systems extends beyond motivation and performance, reaching into the realm of ethical conduct. For example, Niven and Healy (2016) suggest that stringent and explicit performance objectives (e.g., extremely difficult revenue generation goals) may drive employees toward unethical practices to satisfy these goals. Building upon this perspective, we argue that reward systems can also have consequential secondary effects on employee responses to unethical actions within their teams.



Unethical behaviors refer to acts that are "either illegal or morally unacceptable to the larger community" (Jones, 1991: 367). These acts are typically characterized by self-interest, where moral boundaries are crossed to attain a personal advantage (Kish-Gephart et al., 2010; Mitchell et al., 2018). More recent work has made a distinction between unethical behavior that benefits the self and unethical behavior that benefits the team or organization (e.g., Thau et al., 2015; Umphress et al., 2010). For example, taking credit for someone else's work would be self-benefitting, while exaggerating the team's collective performance would be team-benefitting.

Notably, the type of reward system may render the same unethical behavior relatively self-benefitting or team-benefiting. Ceteris paribus, individual-based reward systems make the unethical behavior seem relatively self-benefitting because, by definition, only the perpetrator benefits from the unethical behavior. In contrast, team-based reward systems make the unethical behavior seem relatively team-benefitting because, by definition, the perpetrator as well as the rest of the team benefit from the unethical behavior. Team-based reward systems inherently create interdependence among team members because the reward one receives is at least partly dependent on the performance of other team members (Belmi & Pfeffer, 2018; Wageman, 2001). The degree of reward interdependence primarily depends on the extent to which rewards are based on team performance relative to individual performance as well as other factors such as team size and pay levels. Accordingly, the extent to which the same unethical behavior is self-benefitting or team-benefiting can exist along a continuum.

This line of reasoning only applies to unethical behaviors that are related to the reward system. To illustrate, a brokerage firm may try to incentivize performance by making bonuses dependent on commissions earned from road shows. If an analyst pads an expense account, the type of reward system would not affect how this fraudulent behavior is perceived. However, if an analyst fabricates data to increase commissions earned from road shows, an individual-based reward system would render this fraudulent behavior relatively self-benefitting, whereas a team-based reward system would render this fraudulent behavior relatively team-benefitting. In this work, we only focus on unethical behaviors that are related to the reward system.

Peer Reporting Under Different Reward Systems

Peer reporting of unethical behavior is a specific type of whistleblowing, which refers to disclosure of illegal, illegitimate, or immoral activities by organizational members to parties that have the power to stop them (Gundlach et al., 2003; Near & Miceli, 1985). Peer reporting has two distinct characteristics compared to other types of whistleblowing

(Dworkin & Baucus, 1998). First, the whistle-blower is in an equal power relation to the wrongdoer and thus lacks the power to directly fix the wrongdoing. Second, the reporting is internal, directed at supervisors or other organizational authorities rather than external entities. Accordingly, peer reporting of unethical behavior is defined as employees' expressions of concern about another employee's behavior that violates widely accepted ethical norms to powerholders in the organization (Trevino & Victor, 1992). Due to their proximity and daily interactions, peers are often best positioned to notice ethical lapses, making peer reporting a pivotal aspect of lateral governance within organizations.

Peer reporting can manifest as either speaking up or providing anonymous feedback (Gao et al., 2015). 'Speaking up' involves directly reporting the unethical behavior to supervisors or other powerholders in the organization while 'anonymous feedback' constitutes a more indirect form of flagging wrongdoing that allows the reporter to withhold their identity, often through mechanisms like peer reviews or 360-degree feedback systems. Given that potential retaliation from moral transgressors or ostracism from team members can deter reporting (e.g., Curtis et al., 2021; Mesmer-Magnus & Viswesvaran, 2005), anonymous channels may reduce the perceived risks associated with whistleblowing. By examining peer reporting both in terms of speaking up and anonymous feedback, we seek to understand whether reward systems shape employee responses to team members' unethical behaviors in a manner that transcends any fears of exclusion or retaliation.

Organizations often grapple with the issue of underreporting unethical behavior among employees, despite the presence of channels to do so (Milliken et al., 2003). Leveraging ethics and justice theories, along with work on emotional appraisal, we posit that this problem is exacerbated in team-based reward systems compared to individual-based reward systems. Ethics research underscores that moral convictions underpin concerns about justice, and fairness is a cornerstone of ethical reasoning (Folger, 2001; Folger et al., 2005). Consider, for instance, a salesperson who misrepresents product features to close a deal, thereby breaching the moral duty against deceit (Graham et al., 2013; Haidt, 2007). Employees would perceive this behavior as both unethical and unjust, compelling them to seek redress (Cropanzano et al., 2003; Folger et al., 2005).

We suggest that this desire to rectify injustice is more pronounced in individual-based than in team-based reward systems. Justice theories highlight that people are sensitive to the fairness of their rewards relative to peers (Huseman et al., 1987; Markovsky, 1985). In individual-based reward systems, only the perpetrator benefits from their unethical behavior and gains an unfair advantage over other team members, rendering the act as unjust on top of being unethical. In team-based reward systems, the perpetrator no longer



gains an unfair advantage over other team members. While the act is still unethical, equitable justice is upheld as all team members benefit from the transgression. Additionally, decision-making research indicates that when people have a vested self-interest in a situation, they process information in a biased way, potentially skewing moral evaluations even among those who believe themselves to have a strong moral compass (Bazerman, 2014; Moore & Gino, 2015; Trevino et al., 2014). As such, the unethical behavior that is incentivized by a team-based reward system can be perceived as relatively team-benefitting, which can dampen the impetus to report it.

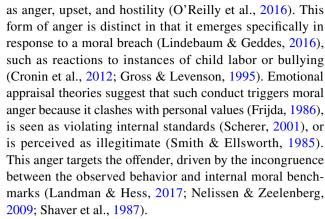
This is important because of the inherent human drive for moral remedies after unjust or unethical incidents occur (Folger et al., 2005). In organizations, one of the most important mechanisms to restore justice is to report a team member's transgression to supervisors or other powerholders (Mayer et al., 2013). The correlation between a desire for fairness and whistleblowing is well-documented; indeed, the impetus to report is often fueled by a yearning for equity and justice (Victor et al., 1993). Such reporting can lead to punitive measures against the offender, reasserting moral norms (Cavanagh et al., 1981). It is essential to note that the intensity of the perceived injustice influences the drive to punish: the more egregious the act, the stronger the desire to punish the perpetrator (Callan et al., 2012). We therefore hypothesize:

H1 People are less likely to report (i.e., speak up or provide anonymous feedback about) a team member's unethical behavior in team-based rather than individual-based reward systems.

The Mediating Role of Moral Anger

Although we have delineated distinctions between the reporting of unethical behaviors in team-based and individual-based reward systems through a prism of justice considerations, it is unlikely that employees witnessing such behaviors engage in such a calculated assessment at the moment of transgression. In fact, Haidt's (2001) Social Intuitionist Model posits that moral judgments are more reflexive, stemming from immediate emotional responses, with moral reasoning often being a subsequent justification for these instinctual reactions. This perspective is bolstered by Greene and colleagues (Greene et al., 2004, 2008), who emphasize the preeminence of affective responses and automatic processing in forming moral judgements. Folger et al. (2005) also contend that emotional responses to perceived injustices and ethical breaches often arise spontaneously, laying the groundwork for later moral remedies.

A prime emotional response to ethical violations is moral anger, which encompasses specific negative emotions, such



Unethical behaviors incentivized by individual-based reward systems not only violate the norm of behaving ethically but also the principle of equitable justice. In contrast, unethical behaviors incentivized by team-based reward systems still violate the norm of behaving ethically, but they uphold the norm of equitable justice within the team. Thus, as previously argued, such behaviors are less likely to challenge the conception of "what ought to be" in team-based as opposed to individual-based reward systems, diminishing their potential to evoke moral anger. We therefore hypothesize:

H2 People feel less moral anger when a team member engages in unethical behavior in team-based rather than individual-based reward systems.

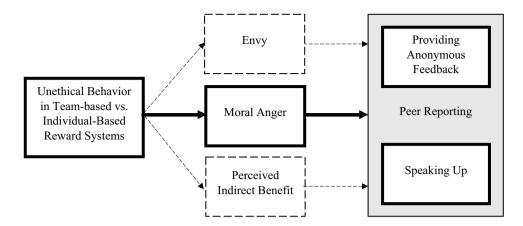
Finally, we postulate that moral anger plays a pivotal role in propelling peer reporting of unethical behavior, for three main reasons: First, moral anger triggers a moral impetus that drives the pursuit of moral restitution, which can be achieved through the sanctioning of the transgressor (Folger et al., 2005). Reporting unethical conduct serves as a practical means of fulfilling this restorative objective.

Second, unlike many other negative emotions (e.g., nervousness, fear, sadness) that lead to an avoidance mindset, anger leads to an approach mindset (Harmon-Jones & Allen, 1998; Watson et al., 1999), compelling individuals to take action and address the cause of their anger to reduce it. Consequently, when employees experience moral anger in response to a colleague's ethical transgression, they are inclined to take steps to confront the issue, with reporting serving as a direct pathway to resolving the perceived injustice.

Third, employees may withhold reports of team members' misconduct due to fears of reprisal or social exclusion for breaking trust within the team (Trevino & Victor, 1992). However, moral anger is likely to mitigate these concerns, as it is associated with reduced self-control, limited engagement with cost–benefit calculations, and diminished consideration of consequences (Berkowitz, 1993; Sinaceur et al.,



Fig. 1 Theoretical model of the effects of observing unethical behavior in team-based vs. individual-based reward systems on peer reporting. *Note* Solid lines received empirical support. Dashed lines did not receive empirical support



2011). Essentially, individuals driven by moral anger are motivated to address the source of their anger and give little thought to considerations that might otherwise deter them. Evidence from studies on third-party interventions reinforces this notion, highlighting that moral anger motivates observers to penalize violators of distributive justice norms and compensate the victims, even at the expense of their own interests (Lotz et al., 2011; Nelissen & Zeelenberg, 2009).

Based on these considerations, we posit that moral anger stands as a key mechanism underpinning the heightened likelihood of reporting team members' unethical behavior in individual-based rather than team-based reward systems. We therefore hypothesize:

H3 Moral anger mediates the effect of the type of reward systems (i.e., team-based vs. individual-based reward systems) on peer reporting of unethical behavior (i.e., speaking up or anonymous feedback).

While work on ethics, justice, and emotional appraisal theories gravitate toward moral anger as the primary mechanism for understanding the impact of reward systems on peer reporting of unethical behavior, alternative drivers are plausible. Prior research on whistleblowing, for instance, has underscored the role of cost-benefit analyses in the decision to blow the whistle, encompassing factors like the potential for retaliation (e.g., Mayer et al., 2013) and monetary reward (e.g., Rose et al., 2018). Within this framework, observers of team members' unethical behavior may remain silent when they perceive potential indirect benefits from the transgression, possibly reducing their inclination to report such behavior. It follows that the benefits observers stand to gain in team-based reward systems, compared to individualbased reward systems, make them less likely to report ethical breaches within their teams.

Furthermore, the perception of equitable justice emerges from comparing one's own ratios of inputs and outputs with those of peers (Huseman et al, 1987). This social comparison may engender interpersonal envy as a concurrent emotional

response. Envy activates neural pathways related to social distress (Takahashi et al., 2009), which prompts people to undertake actions aimed at assuaging their envious feelings (Tai et al., 2012). One possible route might be to undermine or humiliate the envied other. Therefore, it is possible that when people observe their team members' unethical behavior in individual-based rather than team-based reward systems, they envy the advantage conferred by their ill-gotten gain. In turn, envy may motivate peer reporting to reduce or remove this advantage (Smith & Kim, 2007). For these reasons, we measured perceived indirect benefit and envy in our studies to consider these alternative mechanisms and to help eliminate them as explanatory factors.

Overview of Studies

Figure 1 depicts a theoretical model that captures our main arguments. We conducted four studies to test our hypotheses. We report all measures, conditions, and data exclusions, and we determined all sample sizes in advance of data collection based on similar recent studies in the literature. We also conducted a pilot study (see Appendix for details) in a sample of real salespersons from China. It simply showed that perceived reward interdependence is negatively correlated with peer reporting of unethical behavior, providing initial evidence for our main effect.

To test the overarching model, Study 1 used a scenario-based experiment on a sample from China. It lent support for H1 to H3 and ruled out perceived indirect benefit as an alternative mechanism. Study 2 supported H1 to H3 using a simulated team task with real rewards on a sample from the United States. It ruled out envy as an alternative mechanism. Study 3 complemented the two experimental studies by surveying salespeople from the United States about their actual past responses to team members' unethical behaviors in team-based and individual-based reward systems. Once again, it supported H1 to H3 and ruled out both perceived indirect benefit and envy as alternative mechanisms. Finally,



Study 4 explored whether the effect depends on the observer of the unethical behavior and the perpetrator being on the same team on a sample from the United States. All studies were approved by the relevant Institutional Review Boards.

Study 1

Study 1 investigates the main effect of the type of reward system on two forms of peer reporting and the mediating effects of moral anger and perceived indirect benefit.

Methods

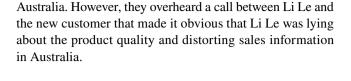
Participants

We recruited 142 full-time working adults (73 female; $M_{\rm age} = 33.19$, SD = 5.85) from Sojump, a Chinese online survey platform similar to Qualtrics. Consistent with previous research (e.g., Burris, 2012; Li et al., 2020; Weiss & Morrison, 2019), people with work experience are suitable for these types of vignette-based experiments. All participants were based in China and randomly assigned to one of two conditions (type of reward system: individual-based vs. team-based).

Procedure and Manipulation

All participants were asked to imagine that they work as sales representatives in an international trading company and are part of a team responsible for exporting products to Australia. In the *individual-based reward system condition*, participants were told that they get a base salary as well as a bonus based on personal sales performance (i.e., if they or a team member make a sale, only they or that team member gets a bonus). In the *team-based reward system condition*, participants were told that they get a base salary as well as a bonus based on the team's sales performance (i.e., if they or a team member make a sale, the entire team gets a bonus).

Participants in both conditions were then given more information about one of their team members, Li Le (a gender-neutral name in China). Li Le was described as an experienced salesperson who knows how to maintain good relationships with old customers, and as someone who is warm-hearted and willing to assist others. They were also told that Li Le made a big sale to a new customer in



Measures

Manipulation Check

We asked participants about the extent to which Li Le's performance benefitted the compensation of the overall team (1 = not at all, 5 = very much). We also added an attention check and asked participants whether their bonus was based on an individual's sales performance or on the team's sales performance.

Dependent Variables

Speaking up was measured by asking whether participants would report Li Le's call with the customer to their supervisor (1 = very unlikely, 5 = very likely). To measure anonymous feedback, we told participants that their company started carrying out 360-degree evaluations. As part of these evaluations, every team member is asked to provide anonymous feedback regarding the other members based on past experiences and observations. We then asked participants to provide feedback about Li Le as part of these 360-degree evaluations. We coded participants' feedback as "1" if the feedback reported the call between Li Le and the new customer or portrayed Li Le as a dishonest person and as "0" if it did not.

In addition, we followed O'Reilly et al. (2016) approach to measure moral anger by asking participants to what extent they felt angry, upset, and hostile in response to Li Le's behavior toward the new customer (1 = not at all, 5 = extremely), $\alpha = 0.78$.

Finally, we measured perceived indirect benefit by asking participants to indicate the extent to which they would benefit personally from Li Le's performance² (1 = not at all, 5 = extremely).



¹ We added this description for two purposes. First, we did not want to describe Li Le only as an unethical person without any redeeming qualities; otherwise, most participants may have reported Li Le's unethical behavior due to strong social desirability. Second, we intended to provide the participants with more information about Li Le so they could comment on something else when they were asked to provide feedback.

While team benefits focus on the benefits the unethical behavior brings to the team and more directly reflect the reward interdependence among team members, indirect benefits focus on the benefits the unethical behavior brings to only the observer and more directly speak to personal calculative evaluations of the observed unethical behavior.

Table 1 Means, standard deviations, and correlations in Study 1

Variables	Mean	SD	1	2	3	4
1 Type of reward system (1 = team- based; 0 = individual-based	0.51	0.50				
2 Anonymous feedback	0.78	0.41	-0.17^*			
3 Speaking up	3.06	1.05	-0.18^*	0.48***		
4 Moral anger	2.67	0.97	-0.26^{**}	0.40***	0.56***	
5 Perceived indirect benefit	2.94	1.15	0.39***	-0.07	-0.11	-0.21^{*}

p < .05, **p < .01, ***p < .001

Results

Manipulation Check

Participants indicated that Li Le's behavior benefitted the compensation of the team more in the team-based (M=4.10, SD=0.71) than in the individual-based reward system condition (M=2.42, SD=1.08), t(140)=11.00, p<0.001, which indicates that the manipulation of the type of reward system was successful. In addition, all participants passed the attention check.

Peer Reporting of Unethical Behavior

Table 1 presents the descriptive results and correlations of Study 1. Participants were more likely to speak up about Li Le's unethical behavior in the individual-based than in the team-based reward system condition (M = 3.25, SD = 1.05 vs. M = 2.88, SD = 1.03), t(140) = 2.12, p = 0.036. Furthermore, when providing anonymous feedback, a logistic regression showed that participants were more likely to report Li Le's immorality in the individual-based than in the team-based reward system condition (59 out of 69 participants, or 85.51%, vs. 52 out of 73 participants, or 71.23%), b = -0.87, p = 0.043.

Mediation Through Moral Anger and Perceived Indirect Benefit

We used Hayes's (2022) PROCESS Macro (version 4.2) with Model 4 to test if moral anger and perceived indirect benefit mediate the effect of the type of reward system on peer reporting (i.e., speaking up and anonymous feedback). Results showed that the indirect effect of the type of reward system on speaking up through moral anger was significant (Effect = -0.29, 95% CI [-0.52, -0.11]), while the indirect effect through perceived indirect benefit was not (Effect = 0.02, 95% CI [-0.11, 0.16]). Similarly, the indirect effect of the type of reward system on anonymous feedback through moral anger was significant (Effect = -0.65, 95% CI [-1.25, -0.20]), while the indirect effect through

perceived indirect benefit was not (Effect = 0.08, 95% CI [-0.32, 0.61]). As shown in Table 1, perceived indirect benefit was not correlated with anonymous feedback (r=-0.07, p=0.405) or speaking up (r=-0.11, p=0.198). These results suggest that economic considerations are not as important as moral emotions in predicting decisions to report unethical behaviors.

Discussion

Study 1 provides evidence for the main effect of the type of reward system on two forms of peer reporting and the mediating effect of moral anger. Moreover, the results did not support perceived indirect benefit as an alternative mediator.

Study 2

Study 2 extends the results of Study 1 in several ways. First, Study 1 relied on a hypothetical scenario. In Study 2, we use a simulated team task to see if the results still hold when participants observe a team member's unethical behavior in two different types of reward systems and real money is at stake. Second, Study 2 tests envy rather than perceived indirect benefit as an alternative mediator.

Methods

Participants

We recruited 121 participants (51 female; $M_{\rm age} = 37.48$, SD = 12.84) from MTurk. All participants were based in the United States and randomly assigned to one of two conditions (type of reward system: individual-based vs. team-based).

Procedure and Manipulation

As the cover story, we told participants that the purpose of the study was to investigate how peer feedback in virtual



teams may differ from peer feedback in face-to-face work teams. Thus, they were to form a virtual team with two other participants, finish a problem-solving exercise, and subsequently provide anonymous feedback regarding the other two members' performance. Unbeknownst to the participants, the other team members were computer-simulated.

All participants were guaranteed a basic participation fee of \$0.50. In addition, they had the chance to earn a bonus payment that would depend on the number of problems solved in the exercise. In the *individual-based reward system condition*, the bonus was based on individual performance. For each problem solved, participants were to receive three extra cents. Similarly, for each problem a team member would solve, that team member would receive 3 extra cents. In the *team-based reward system condition*, the bonus was based on team performance. For each problem solved, the entire team would receive 3 extra cents. Similarly, for each problem a team member would solve, the entire team would receive 3 extra cents (in this case, the total bonus would be divided by three, so each team member would receive an equal share).

After being informed about the reward system, participants were asked to enter some personal information, including their initials, occupations, hobbies, and skills. This information ostensibly would be shared among team members so they would have a bit more contextual information to provide their feedback after the exercise. After a brief waiting period during which the software supposedly waited for two additional participants to sign up for the study to form a team, participants were told they were randomly assigned to act as team member A with their peers, and team members B (with the initials DG) and C (with the initials BL).

Participants were presented with nine matrices and asked to identify the sets of three numbers that lay in a line (horizontal, vertical, or diagonal) and added up to ten. To ensure that participants fully understood the task, we first presented them with a trial matrix and asked them to write down their strategy to solve the problems. Participants were allocated three minutes for the actual task and then had to self-report their performance. Doing so allowed for the possibility of cheating.

Importantly, before the exercise began, we told participants that each team member would randomly receive two pieces of unique information to help solve the matrix problems. All participants received the following two tips: "The three matrices in the second row have no correct answers" and "The total number of correct answers is between 7 and 15." The first tip helped participants solve the problems more efficiently. The second tip appeared to inform the participants of the range of the number of correct answers, but the real purpose was to enable participants to detect if a team member was cheating by claiming to have solved more than 15 matrices.

After the exercise, there was another brief waiting period during which the system supposedly collected all team members' answers to share them with the team. Participants then learned that team member B found 21 sets of numbers and team member C found nine sets of numbers. Thus, B's response exceeded the maximum of 15, whereas C's response was within the range of seven to 15. To convey that B cheated and did not just make an honest mistake, we chose a number that is significantly larger than 15 as opposed to a slightly larger number such as 16 or 17 which could have resulted from a miscalculation. We then presented all participants with their peers' personal information, the task strategy they had disclosed, as well as the self-reported performance of both B and C. Lastly, participants were asked to provide peer feedback and answer additional questions about their team members.

Measures

Manipulation Check

We asked participants to indicate whether their bonus pay was based on individual performance or team performance. This also served as an attention check based on which we deleted participants who did not read the instructions carefully.

Dependent Variables

In line with Study 1, we measured anonymous feedback by coding participants' feedback. Specifically, we coded the feedback as "1" if it mentioned that B might have cheated and as "0" if it did not. Note that because there was no supervisor in our experimental design, we did not measure speaking up.

We measured moral anger the same way as in Study 1 by asking participants the degree to which they felt angry, upset, and hostile as a consequence of B's behavior (1 = not at all, 5 = extremely), $\alpha = 0.92$.

We also measured envy as an alternative mediator by adapting the four items from Van Dijk et al. (2006): "I would like to be in the position of B," "I'm jealous of B," "I would like to be in the shoes of B," and "I feel less good when I compare my own results with those of B" (1 = not at all, 5 = extremely), $\alpha = 0.85$.

Participants then completed all of these measures with respect to team member C as well.

Results

Manipulation Check

Almost all participants correctly indicated whether their bonus pay was individual-based or team-based. Only three



Table 2 Means, standard deviations, and correlations in Study 2

Variables	Mean	SD	1	2	3
1 Type of reward system (1 = team-based; 0 = individual-based	0.54	0.50			
2 Peer reporting of unethical behavior	0.34	0.48	-0.36***		
3 Moral anger	1.46	0.89	-0.31***	0.52***	
4 Envy	2.03	1.00	0.09	-0.13	-0.11

participants in the team-based reward system condition indicated that their bonus pay was "individual-based," and seven participants in the individual-based reward system condition indicated that their bonus pay was "team-based," so these participants were excluded from the sample. Retaining these participants yielded the same pattern of results.

Peer Reporting of Unethical Behavior

Table 2 presents the descriptive results and correlations of Study 2. A logistic regression showed that participants were more likely to report B's cheating in the individual-based than in the team-based reward system condition (27 out of 51 participants, or 52.94%, vs. 11 out of 60 participants, or 18.33%), b = -1.61, p < 0.001.

Mediation Through Moral Anger and Envy

We used Hayes's (2022) PROCESS Macro (version 4.2) with Model 4 to test if moral anger and envy mediate the effect of the type of reward system on peer reporting. Results showed that the indirect effect of the type of reward system on peer reporting through moral anger was significant (Effect = -0.90, 95% CI [-2.24, -0.31]), whereas the indirect effect through envy was not (Effect = -0.04, 95% CI [-0.27, 0.15]). As shown in Table 2, envy was not correlated with peer reporting of unethical behavior (r = -0.13, p = 0.162). These results suggest that social comparison processes are not as important as moral emotions in predicting decisions to report unethical behaviors.

Supplementary Analysis

Since the participants were asked to self-report their own performance, it is possible that some participants exaggerated their answers to gain a greater bonus. The participants who cheated in the task also may have been more tolerant of B's cheating and less likely to report it. In our final sample, almost all participants reported fewer than 15 answers, except for one participant in the team-based reward system condition, who reported 16 answers. Therefore, for most participants, we are not able to tell if they exaggerated their

answers. However, participants in the individual-based (M=7.24, SD=3.34) and team-based reward system conditions (M=7.10, SD=3.90) reported, on average, the same number of answers, t(109)=0.19, p=0.846. This result suggests that there was no significant difference between the two conditions in terms of participants' own cheating behavior.

Additionally, to enrich our understanding of the consequences of observing team members' unethical behaviors in different types of reward systems, we assessed participants' attitudes toward B in an exploratory fashion. Participants provided a subjective rating of B's overall performance (1 = very bad, 7 = very good) and assessed their desire for future interactions by adapting two items from Chen et al. (2003): "Would you like to work with B on another task?" and "Would you like to work in the same team as B in future?" (1 = not at all interested, 5 = extremely interested), $\alpha = 0.98$. The results showed that participants evaluated the performance of B more positively in the team-based than in the individual-based reward system condition (M = 5.85, SD = 1.60 vs. M = 4.84, SD = 1.91), t(109) = 3.02, p = 0.003,but they evaluated the performance of C equally in both conditions (M = 5.13, SD = 0.99 vs. M = 5.18, SD = 0.93),t(109) = -0.23, p = 0.816. They also reported a stronger desire to interact again with B in the team-based than in the individual-based reward system condition (M = 3.44,SD = 1.39 vs. M = 2.58, SD = 1.43), t(109) = 3.22, p = 0.002,but had an equally strong desire to interact again with C in both conditions (M = 2.91, SD = 1.13 vs. M = 2.90, SD = 1.07), t(109) = 0.03, p = 0.976. The fact that we observed differences between conditions only for the unethical team member (B) and not for the ethical team member (C) suggests that a team-based reward system does not make people less likely to report an unethical team member because they have a more positive attitude toward all team members in general.

Furthermore, in the team-based reward system condition, the performance rating of B was significantly higher than that of C, t=3.18, p=0.002, and participants desired to interact with B in future more strongly than with C, t=2.42, p=0.019. In contrast, in the individual-based reward system condition, there were no differences in performance ratings and the desire for future interaction between B and C,



^{***}p<.001

ts = -1.03, -1.27, ps = 0.310, 0.211. Taken together, these results show that "high-performing" cheaters who benefit their team are indeed favored by other team members, which implies that the ethical consequences of team-based reward systems could be profound.

Discussion

Study 2 replicates the findings of Study 1 in a simulated team task with actual money at stake. Participants were less likely to report the team member's unethical behavior through anonymous feedback when rewards were team-based rather than individual-based because of reduced moral anger, but not because of reduced envy. In addition, the results indicate that it is unlikely that the manipulation of the reward system influenced participants' own cheating behavior and thus their reporting of someone else's unethical behavior.

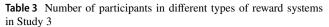
Study 3

So far, Studies 1 and 2 have supported our hypotheses in experimental settings. To further enhance the generalizability of our findings, Study 3 surveys a sample of real sales workers about their past reporting behaviors. It also measures all three potential mediators—moral anger, perceived indirect benefit, and envy—to provide evidence for the role of moral anger relative to alternative explanations in a correlational rather than experimental paradigm.

Methods

Participants and Procedure

We recruited 120 salespeople (36 female; $M_{\text{age}} = 34.27$, SD = 11.25) working in the United States via Qualtrics Panels Service, which enables researchers to use very specific selection criteria to recruit participants. To qualify for our study, all participants had to be salespeople whose income is at least partly based on sales rewards and who had witnessed a coworker in their team or department make a sale by engaging in unethical behavior during the past year. All participants were asked to describe the behavior in some detail. Table 3 summarizes the number of participants in the individual-based and team-based reward systems. While 61 and 24 participants respectively worked in purely individualbased and purely team-based reward systems, 35 participants worked in a mixed reward system where at least half of the reward was based on team performance. Compared to purely team-based reward systems, people working under these mixed reward systems should still perceive a team



Type of organizati	Number of participants	
Individual-based	Purely based on individual performance	61
Team-based	Equally based on individual performance and team performance	31
	Mostly based on team performance	4
	Purely based on team performance	24

member's unethical behavior as team-benefitting, albeit to a lesser extent.

Measures

Type of Reward System

The type of reward system was coded as 0 if the reward system was purely individual-based and as 1 if all or at least half of the reward system was team-based.

Speaking Up

Consistent with prior research (Mayer et al., 2013; Mesmer-Magnus & Viswesvaran, 2005), we adopted a single-item, dichotomous measure of speaking up. Specifically, we asked participants whether they had spoken up to their supervisor or other powerholders in the organization about the unethical behavior (1 = yes, 0 = no). Note that because not all participants had formal feedback outlets, we did not measure anonymous feedback.

Moral Anger

Consistent with Studies 1 and 2, we measured moral anger by asking to what extent participants felt angry, upset, and hostile when they had originally witnessed the team member's behavior (1 = not at all, 5 = extremely), $\alpha = 0.78$.

Perceived Indirect Benefit and Envy

We measured perceived indirect benefit by asking participants to indicate to what extent they benefitted personally from their team member's behavior (1 = not at all, 5 = extremely). We measured envy by asking participants to what extent they felt envious when they witnessed the team member's behavior (1 = not at all, 5 = extremely).



Table 4 Means, standard deviations, and correlations in Study 3

Variables	Mean	SD	1	2	3	4	5	6	7	8
1 Type of reward system (1 = team-based; 0 = individual-based)	0.49	0.50								
2 Speaking up	0.62	0.49	-0.22^{*}							
3 Moral anger	2.94	1.09	-0.21^*	0.33***						
4 Perceived indirect benefit	2.42	1.50	0.27^{**}	-0.07	-0.06					
5 Envy	1.89	1.24	-0.06	0.10	0.26**	0.26**				
6 Moral identity	3.75	0.44	-0.04	0.22^{*}	0.21^{*}	-0.07	-0.29^{**}			
7 Income level	3.63	1.63	0.10	0.00	0.13	0.11	0.06	0.10		
8 Gender $(1 = \text{female}, 0 = \text{male})$	0.30	0.46	0.01	-0.04	0.20^{*}	-0.15	-0.06	0.07	-0.17	
9 Age	34.27	11.25	-0.22^{*}	0.02	0.16	-0.00	-0.19^*	0.31***	0.01	-0.20^{*}

Control Variables

Because of the correlational nature of the data, we controlled for several variables that could influence how people react to ethical transgressions. First, as was the case in the Pilot Study, we controlled for gender (0 = male, 1 = female) and age. In addition, we controlled for participants' income level as it may influence their attitudes toward team member's unethical behavior when they gain benefits from such behavior. We asked participants to indicate the range of their monthly income (1 = less than \$1500; 2 = \$1500 - \$2999;3 = \$3000 - \$4999; 4 = \$5000 - \$6999; 5 = \$7000 - \$8999; 6 = \$9000 - \$10,999, 7 = more than \$11,000). Last, we measured moral identity internalization, which may make people more sensitive to ethical transgressions and more likely to report them. We used Aquino and Reed's (2002) five-item scale. Participants imagined a person with nine moral traits (e.g., caring, fair, honest) and then rated five items, such as "It would make me feel good to be a person who has these characteristics" (1 = strongly disagree, 5 = strongly agree), $\alpha = 0.75$. The results yielded the same pattern with or without the control variables.³

Results

Peer Reporting of Unethical Behavior

Table 4 presents the descriptive statistics and correlations among the focal variables in Study 3. Tables 5 and 6 summarize the regression results for testing our hypotheses. As shown in Table 5, Model 1, a logistic regression showed that type of reward system negatively predicted speaking up (44 out of 61 participants, or 72.13%, vs. 30 out of 59 participants, or 50.85%), b = -1.07, p = 0.011, indicating that people are less likely to report team members' unethical behavior in team-based rather than individual-based reward systems.

Mediation Through Moral Anger, Perceived Indirect Benefit, and Envy

We used Hayes's (2022) PROCESS Macro (version 4.2) with Model 4 to test if moral anger, perceived indirect benefit, and envy mediate the effect of the type of reward system on speaking up. Results showed that the indirect effect of the type of reward system on speaking up through moral anger was significant (Effect = -0.31, 95% CI [-0.84, -0.03]), whereas the indirect effects through perceived indirect benefit and envy were not (Effect = -0.01, 95% CI [-0.34, 0.32]; Effect = -0.03, 95% CI [-0.34, 0.11]).

Supplementary Analysis

Because we operationalized both purely team-based reward systems and mixed reward systems as team-based reward systems, we were able to conduct two sets of more nuanced analyses in an exploratory fashion. First, we excluded participants working in organizations with mixed reward systems

p < .05, **p < .01, ***p < .001

³ We also included several additional variables, such as team identification, organizational identification, and professional identification, in an exploratory fashion. We do not report them in this paper because we are examining them for a potential follow-up project.

Table 5 Logistic regression results for predictors of speaking up in Study 3

Variables	Model 1		Model 2		Model 3		Model 4		Model 5	
	\overline{b}	SE								
Type of reward system (1=team- based, 0=individual-based)	-1.07*	0.42	-0.86	0.45	-1.07*	0.44	-1.02*	0.43	-0.84	0.47
Moral anger			0.76**	0.23					0.71**	0.25
Perceived indirect benefit					0.00	0.14			-0.02	0.16
Envy							0.29	0.19	0.10	0.21
Moral identity	1.35**	0.51	1.28*	0.54	1.35*	0.51	1.58**	0.55	1.37^{*}	0.58
Income level	-0.02	0.13	-0.12	0.14	-0.02	0.13	-0.04	0.13	-0.12	0.14
Gender $(1 = \text{female}, 0 = \text{male})$	-0.45	0.46	-0.97	0.51	-0.45	0.46	-0.43	0.47	-0.94	0.52
Age	-0.03	0.02	-0.04	0.02	-0.03	0.02	-0.02	0.02	-0.04	0.02
Constant	-2.84	1.77	-3.94	1.93	-2.84	1.80	-4.34	2.06	-4.35	2.15
N	120		120		120		120		120	
LR chi2	13.90*		26.21***		13.90*		16.57*		26.45**	
Pseudo R2	0.09		0.16		0.09		0.10		0.17	

Table 6 Ordinary linear regression results for predictors of moral anger in Study 3

Variables	b	SE
Type of reward system (1 = team-based, 0 = individual-based)	-0.43*	0.19
Moral identity	0.31	0.23
Income level	0.12	0.06
Gender $(1 = \text{female}, 0 = \text{male})$	0.57**	0.21
Age	0.01	0.01
Constant	0.98	0.82
N	120	
F	4.24**	
R2	0.16	

N = 120

from the sample to be consistent with Studies 1 and 2 and only compared the effects of purely individual-based and purely team-based reward systems on peer reporting. The results of a logistic regression showed that type of reward system still negatively predicted speaking up, b = -1.74, p = 0.003.

Second, we categorized participants working in organizations with mixed reward systems into a third condition to conceptualize the proportion of team rewards along a continuum. We coded the type of reward system as 0 if it was purely individual-based, 1 if it was mixed, and 2 if it was purely team-based. The results of logistic regression showed that type of reward system negatively predicted speaking up (44 out of 61 participants, or 72.13%, vs. 21 out of 35

participants, or 60.00%, vs. 9 out of 24 participants, or 37.50%), b = -0.83, p = 0.002. This finding suggests that the larger the proportion of team-based rewards, the less likely employees are to speak up about their team members' moral transgressions.

Discussion

Study 3 replicates the previous findings in a sample of actual sales workers, strengthening the generalizability of our results. Participants felt less moral anger toward team members' unethical behavior in team-based rather than individual-based reward systems and were therefore less likely to speak up about it. Neither perceived indirect benefit nor envy explained this effect. While we are not claiming that economic considerations or social comparison processes do not matter at all, our results suggest that moral anger matters more. These results held up even when controlling for moral identity internationalization, income level, gender, and age.

Study 4

In Studies 1 to 3, the observer of the unethical behavior belonged to the same team as the perpetrator, which is consistent with our theorization. Although in-group members usually have more opportunities than out-group members to observe a colleague's unethical behavior, it might be interesting to investigate in an exploratory fashion whether outgroup members also show the same level of tolerance under a team-based reward system. The effect could be attenuated because an out-group member may not be as aware



p < 0.05, p < 0.01, p < 0.01

p < 0.05, p < 0.01

or appreciative—consciously or subconsciously—of the benefits to the transgressor's team, thus still leading to high levels of moral anger and peer reporting.

Methods

Participants

We recruited 400 full-time working adults (46.50% female; $M_{\rm age} = 37.87$, SD = 10.95) from Prolific. All participants were based in the United States and randomly assigned to one of four conditions in a 2 (type of reward system: individual-based vs. team-based) \times 2 (group membership: in-group vs. out-group) experimental design.

Procedure and Manipulation

We used the same procedure as for Study 2 but modified it in the following ways: First, we told participants that hundreds of participants would be invited to this study. They would team up with two other participants and complete an exercise with their team members. After that, they would provide anonymous feedback on one member of their team or a different team. Second, to manipulate group membership, the system informed the participants they would receive a summary of the performance of one member of their own team or another team. Specifically, in the in-group membership condition, participants received information about Member B (DG) who was in the same team whereas. In the out-group membership condition, participants received information about Member B (JL) who was in a different team. We also used team IDs assigned to participants (i.e., T23) and Member B (i.e., T23 or T05) to reinforce whether Member B was an in-group or out-group member. Third, we increased the basic participation fee to \$1.50 in line with the recommendation set by Prolific. To keep the ratio of bonuses and basic pay consistent with that of Study 2, the reward for each correct answer was set at 9 cents. All other procedures remained the same as in Study 2.

Measures

Manipulation Check

We asked participants to indicate whether their bonus pay was based on individual performance or team performance and whether Member B was a member of their team or not. This also served as an attention check⁴ based on which we deleted participants who did not read the instructions carefully.

Dependent Variables

In line with Study 2, we measured anonymous feedback by coding participants' feedback (1 = it mentioned that B might have cheated, 0 = it did not).

We measured moral anger the same way as in Studies 1 and 2 by asking participants the degree to which they felt angry, upset, and hostile as a consequence of B's behavior $(1 = \text{not at all}, 5 = \text{extremely}), \alpha = 0.90.$

Results

Manipulation Check

Among all participants, 34 failed the attention checks, incorrectly indicating the nature of their bonus pay or the membership of Member B. Specifically, ten participants in the individual-based reward and in-group member condition, eleven participants in the individual-based reward and outgroup member condition, four participants in the team-based reward and in-group member condition, and nine participants in the team-based reward and out-group member condition were excluded from the final sample. Retaining these participants yielded the same pattern of results.

Peer Reporting of Unethical Behavior

Table 7 presents the cell means and standard deviations of peer reporting of unethical behavior and moral anger. We conducted a two-way ANOVA to test the interaction effect of the type of reward system (individual-based vs. teambased) and group membership (in-group vs. out-group) on peer reporting of unethical behavior. The results (see Fig. 2) yielded a significant interaction effect, F(3, 362) = 3.69, p = 0.012. Planned contrasts showed that when Member B (i.e., the violator) was an in-group member, the type of reward system had a significant effect on peer reporting of unethical behavior, F(1, 185) = 10.34, p = 0.002; whereas when Member B was an out-group member, there was no relationship between the type of reward system and peer reporting of unethical behavior, F(1, 177) = 0.21, p = 0.646.

⁴ To ensure the engagement of the participants, we inserted an additional attention check (i.e., "Please select "Mars" if you are still paying attention") in the survey. All participants responded correctly.



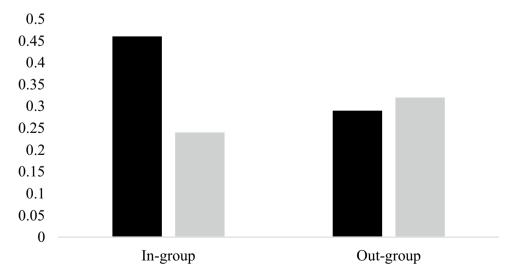
Table 7 Cell means and standard deviations of peer reporting and moral anger in Study 4

Variables	In-grober	up mem-	Out-group member		
	\overline{M}	SD	\overline{M}	SD	
Peer reporting					
Individual-based reward systems	0.46	0.50	0.29	0.46	
Team-based reward systems	0.24	0.43	0.32	0.47	
Moral anger					
Individual-based reward systems	1.39	0.66	1.31	0.80	
Team-based reward systems	1.09	0.31	1.35	0.76	

Mediation Through Moral Anger

We used Hayes's (2022) PROCESS Macro (version 4.2) with Model 4 to test whether moral anger mediates the interactive effect of type of reward systems and membership on peer reporting of unethical behavior. Results showed that when the transgressor was an in-group member, the type of reward system had a significant relationship with moral anger (Effect = -0.29, 95% CI [-0.48, -0.10]), and the indirect effect of the type of reward system on peer reporting through moral anger was significant (Effect = -0.45, 95% CI [-0.87, -0.20]). In contrast when the transgressor was an out-group member, the type of reward system had no relationship with moral anger (Effect = 0.04, 95% CI [-0.15, 0.24]), and the indirect effect through moral anger was not significant (Effect = 0.07, 95% CI [-0.35, 0.40]).

Fig. 2 The interaction of the type of reward systems and group membership on peer reporting in Study 4



■ Individual-based reward systems ■ Team-b

■ Team-based reward systems

Discussion

Study 4 extends previous studies by establishing a boundary for our main effect. Compared to individual-based reward system, team-based reward systems make it less likely that someone reports an unethical behavior if the transgressor is a member of the same team, but this effect disappears when the transgressor is a member of a different team. This finding suggests that the interdependence of rewards between the observer and the transgressor is necessary for the effect to emerge.

General Discussion

Across four studies, we found convergent evidence that unethical behaviors elicit less moral anger and are consequently less likely to be reported under team-based than individual-based reward systems. Moreover, because moral anger rather than perceived indirect benefit or envy explains this effect, the decision to report team members' unethical behavior does not appear to be driven by calculative, selfish motives but by moral motives.

Implications for Theory

Our research makes theoretical contributions to several important domains. First, it extends the literature on reward systems by illuminating a heretofore unexplored negative consequence of team-based reward systems. Team-based reward systems have enjoyed increasing popularity in organizations because of their potential to encourage collaboration and enhance team performance (DeMatteo et al., 1998; Nyberg et al., 2018). Researchers have spent substantive efforts to explore whether team-based reward systems are beneficial for group functioning as compared



to individual-based reward systems (e.g., Farr, 1976; Kim & Gong, 2009; Pretty et al., 1992). However, these studies have mostly highlighted the positive outcomes of teambased reward systems and focused on their effects on performance. In contrast, our work draws attention to the potential downsides of team-based reward systems by shifting the attention away from performance-related concerns to ethical considerations.

Second, our research findings contribute to the whistle-blowing literature. Previous studies have shed light on managerial strategies that can encourage employees to speak up, such as demonstrating ethical leadership or cultivating a climate that reduces perceived interpersonal risk (Mayer et al., 2013). However, less is known about how human resource practices may affect whistleblowing. Our research shows the direct impact of a specific type of human resource practice—reward systems—on whistleblowing behavior, thereby broadening the understanding of the factors that can exert a direct influence on this critical organizational process.

Furthermore, our exploration into the underlying mechanisms reveals that employees' decision to report their team members' unethical behavior is driven by moral emotions (i.e., moral anger), rather than calculative or self-interested motives (i.e., perceived indirect benefit or envy). This finding challenges the predominant cost-benefit-analysis approach in prior whistleblowing research, which has often emphasized the fear of retaliation as a key deterrent (Mayer et al., 2013; Mesmer-Magnus & Viswesvaran, 2005) and has focused on incentivizing whistleblowing through monetary rewards (Ayagre & Aidoo-Buameh, 2014; Rose et al., 2018). More recent qualitative work suggests that reflexive emotions like moral anger might play a bigger role in whistleblowing decisions than previously thought (Mason & Simmons, 2019). Our research provides the first quantitative evidence for the overriding influence of moral emotions in spurring whistleblowing in organizations, emphasizing the pivotal role of these emotions in encouraging ethical reporting within organizations.

Third, our research holds implications for the literature on anger. Traditionally perceived as a negative emotion necessitating regulation (Averill, 1983), anger has rarely been discussed in terms of its potential for productive purposes (Elfenbein, 2007). In this context, our findings demonstrate the constructive role of moral anger as a driving force behind peer reporting of unethical behavior, suggesting that, when appropriately channeled, anger can serve as a potent tool in combatting corrupt practices within organizations (Anand et al., 2004).

Implications for Practice

The managerial implications of our research are straightforward and substantial. First, our results highlight the critical

need for managers to be particularly vigilant about unethical conduct within organizations that utilize team-based rather than individual-based reward systems. With team-based incentives, unethical behaviors become relatively advantageous for all team members, thereby suppressing the likelihood that such transgressions get reported. Consequently, managers in these organizations run the risk of significantly underestimating the prevalence of unethical conduct. This problem is further exacerbated by the fact that team-based reward systems are intended to foster a positive and collaborative climate, which can mask underlying problems and allow them to fester. Awareness of these detrimental side effects of team-based reward systems should ideally prompt managers to proactively monitor, regulate, and minimize instances of unethical behavior.

Second, our research underscores the importance of designing appropriate and balanced reward systems. While team-based reward systems have demonstrated effectiveness in enhancing task performance (Condly et al., 2008; Garbers & Konradt, 2014), they may inadvertently suppress employees' ethics-related goals. We do not advocate for the abandonment of team-based rewards altogether. Instead, we recommend that organizations consider the potential ethical implications of these reward systems alongside their performance benefits. As shown in the supplementary analysis in Study 3, a higher proportion of team-based reward pay is associated with a greater likelihood of employee silence when confronted with a team member's unethical behavior. Therefore, a potential strategy to reconcile the benefits and drawbacks of team-based reward systems could involve implementing mixed reward systems and judiciously calibrate the weights placed on team versus individual performance.

Finally, the fact that moral anger rather than perceived indirect benefits or envy mediated the effects of reward systems on peer reporting has implications for the content of training initiatives aimed at addressing employee silence. When managers seek to encourage their subordinates to report the unethical behaviors of colleagues, they should prioritize the importance of moral intuitions and emotions instead of focusing solely on cost—benefit analyses and calculative motives. Integrating training sessions on emotional intelligence can enable employees to accurately recognize and label moral anger and emphasize the potential organizational benefits of acting on such emotions.

Limitations and Future Directions

Although we provide consistent evidence for our hypotheses across four studies that complement each other in terms of strengths and weaknesses, we acknowledge several limitations.



First, our focus on the aftermath of unethical behaviors does not account for the potential influence of reward systems on the likelihood of unethical behaviors materializing in the first place. Prior research has identified monetary incentives as triggers of unethical behaviors (see Park et al., 2022 for a review), yet less is known about the differential effects of different types of reward systems. On the one hand, an individual-based reward system could foster more unethical behaviors: Moral transgressors earn greater personal benefits because they would not have to share any rewards with other team members, increasing their motivation to act unethically. On the other hand, a team-based reward system could foster more unethical behaviors: Moral transgressors have a greater rationalization for breaking the rules because the rewards would benefit the entire team (e.g., Danilov et al., 2013), again increasing their motivation to act unethically. These competing mechanisms could explain why we found similar levels of self-reported performance in Study 2. Investigating the conditions under which team-based reward systems may induce more or less unethical behaviors than individual-based reward systems could be an intriguing avenue for future research.

Second, in our experimental studies, we operationalized team-based reward systems such that all team members received equal bonuses based on team performance. However, in practice, bonuses may not always be equally divided among team members. It is conceivable that people may be more inclined to report team members' unethical behavior when bonuses are unequally distributed. In Study 3, where we began exploring this issue, 60% of participants reported a team member's unethical behavior in mixed reward systems, a reporting level between the levels in purely individual-based (72%) and purely team-based reward systems (38%). Future research could adopt a more nuanced categorization of reward systems to further enhance our understanding of the varied influences of human resource practices on peer reporting.

Finally, while our research champions the idea that moral anger can assuage apprehensions deterring people from reporting unethical actions, we also recognize that fear of retaliation could at times supersede moral anger's influence. In such cases, the decision to report or withhold may hinge more heavily on retaliation concerns. Thus, future research could delve deeper into situations where the influence of reward structures on reporting might be diluted due to heightened concerns about retaliation risks.

Conclusion

This research presents a first attempt to explore how organizational reward systems may influence third-party reactions to ethical transgressions. Our findings uncover an insidious

side effect of team-based reward systems, namely that they render individuals less likely to speak up or provide anonymous feedback about a team member's unethical behavior. Bridging human resource practices to business ethics, our work opens new avenues for understanding why some organizations may condone corrupt conduct.

Appendix

Pilot Study

The pilot study aims to provide initial evidence for our main hypothesis in a real work setting: Is there a negative relationship between reward interdependence and peer reporting of unethical behavior? That is, the more dependent individuals perceive their rewards to be on other team members' performance, the less likely they are to report their team members' unethical behavior.

Methods

Participants and Procedure

We contacted a large furniture company that has 62 direct-sales stores in Eastern China. Through initial interviews with a store manager and a regional manager, we confirmed that there are differences in reward allocation between and within stores. Therefore, it was possible to capture differences in reward interdependence. We received permission to send a short survey during their internal sales conference. Two of the authors attended the conference in person and explained to the salespersons that the data will be confidential and only used for academic purposes. The salespersons who agreed to participate scanned the QR code of the survey and finished it on their own mobiles. In doing so, we tried to ensure their anonymity to the maximum extent. A total of 273 salespersons completed the questionnaire.

The prerequisite of our main hypothesis is that people have witnessed their team members' unethical behavior that can be deemed individual-benefitting or team-benefitting depending on the reward system. We therefore generated a filter question and asked participants to describe any ethical violations in service of customers or clients that they may have witnessed in their stores. Of the 273 participants, 53 explicitly indicated that they had witnessed their team members' unethical behaviors toward customers. These behaviors included exaggerating product functions, badmouthing other brands, lying about the product price, etc. to land a sale, which could be rendered relatively self-benefitting or teambenefitting under different levels of reward interdependence.



These participants constituted the focal sample for data analysis.

There was no difference in age (Ms = 30.15, 32.02 years, t = 1.28, p = 0.203) between the final sample and the excluded sample. The final sample had a slightly higher percentage of male participants (35.85%) than the excluded one (21.36%), t = 2.22, t = 0.027.

Measures

Reward Interdependence

We measured reward interdependence using four items⁵ from Belmi and Pfeffer (2018). Example items were "My compensation increases (or decreases) depend on how well my store is doing," and "My salary increases (and/or bonuses) depend on the performance of my coworkers." (1 = disagree, 5 = agree), $\alpha = 0.74$.

Peer Reporting of Unethical Behavior

The scale was adapted from Mayer et al. (2013) two-item scale of reporting unethical behavior internally. The items were "When I witnessed a coworker violate our company's code of conduct in service of customers or clients, I reported it," "When I personally observed a coworker violate our company's standards of ethical business conduct, I reported it" (1=disagree, 5=agree), α =0.95.

Control Variables

We controlled for gender and age because previous research indicates that these demographic factors influence ethics-related decisions (e.g., Kish-Gephart et al., 2010; Mesmer-Magnus & Viswesvaran, 2005). The results yielded the same pattern with or without the control variables.

Results

Peer Reporting of Unethical Behavior

As shown in Table 8, reward interdependence was negatively related to peer reporting of unethical behavior, r = -0.37, p = 0.007. Also, as shown in Table 9, this relationship held

Table 8 Means, standard deviations, and correlations in Pilot Study

Mean	SD	1	2	3
3.07	0.92			
3.33	1.01	-0.37**		
0.64	0.48	-0.12	-0.07	
30.15	6.45	-0.04	-0.08	0.42**
	3.07 3.33 0.64	3.07 0.92 3.33 1.01 0.64 0.48	3.33 1.01 -0.37** 0.64 0.48 -0.12	3.07 0.92 3.33 1.01 -0.37**

N = 53

Table 9 Ordinary linear regression results for predictors of peer reporting of unethical behavior in Pilot Study

Variables	b	SE
Reward interdependence	-0.42**	0.15
Gender $(1 = \text{female}, 0 = \text{male})$	-0.18	0.31
Age	-0.01	0.02
Constant	5.01***	0.79
N	53	
F	2.87	
R2	0.15	

$$N = 53$$

up when including gender and age in the model, b = -0.42, p = 0.006. Thus, the results supported our prediction that the more individuals perceive that their rewards are dependent on the performance of other team members, the less likely they are to report team members' unethical behavior.

Acknowledgements We thank Elad N. Sherf, Zhenyu Liao, Jingjing Yao, and Run Ren for their insightful comments on an early draft of this article.

Funding This research was supported by the National Natural Science Foundation of China (No.72272134, No. 72172139, No.71902172) and Scientific Research Fund of Zhejiang Provincial Education Department (Y201839686).

Data Availability Data used and analyzed in the current study are available upon request.

Declarations

Conflict of interest The authors have no conflict of interest to disclose.

Ethical approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.



⁵ One reversely stated item (i.e., "At work, my compensation is completely determined by my individual performance") was dropped from the original scale because it severely affected the reliability of the measure. The reliability decreased from 0.74 to 0.62 if this item was included. The results yielded the same pattern with or without this item.

^{**}p < .01

^{**}p<.01, ***p<.001

Informed consent Informed consent was obtained from all individual participants included in the research.

References

- Anand, V., Ashforth, B. E., & Joshi, M. (2004). Business as usual: The acceptance and perpetuation of corruption in organizations. *Academy of Management Executive*, 18(2), 39–53. https://doi.org/10.5465/ame.2004.13837437
- Andon, P., Free, C., Jidin, R., Monroe, G. S., & Turner, M. J. (2018). The impact of financial incentives and perceptions of seriousness on whistleblowing intention. *Journal of Business Ethics*, 151, 165–178. https://doi.org/10.1007/s10551-016-3215-6
- Aquino, K., & Reed, A. I. I. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology*, 83(6), 1423–1440. https://doi.org/10.1037/0022-3514.83.6.1423
- Averill, J. R. (1983). Studies on anger and aggression: Implications for theories of emotion. *American Psychologist*, *38*(11), 1145–1160. https://doi.org/10.1037/0003-066X.38.11.1145
- Ayagre, P., & Aidoo-Buameh, J. (2014). Whistleblower reward and systems implementation effects on whistleblowing in organizations. European Journal of Accounting Auditing and Finance Research, 2(1), 80–90.
- Bazerman, M. H. (2014). The power of noticing: What the best leaders see. Simon & Schuster.
- Belmi, P., & Pfeffer, J. (2018). The effect of economic consequences on social judgment and choice: Reward interdependence and the preference for sociability versus competence. *Journal of Organizational Behavior*, 39(8), 990–1007. https://doi.org/10.1002/job. 2274
- Bergemann, P., & Aven, B. (2023). Whistleblowing and group affiliation: The role of group cohesion and the locus of the wrongdoer in reporting decisions. *Organization Science*, *34*(3), 1243–1265. https://doi.org/10.1287/orsc.2022.1617
- Berkowitz, L. (1993). Aggression: Its causes, consequences, and control. McGraw-Hill.
- Bolch, M. (2007). Rewarding the team. *HR Magazine*, 52(2), 91–93.
- Burris, E. R. (2012). The risks and rewards of speaking up: Managerial responses to employee voice. *Academy of Management Journal*, 55(4), 851–875. https://doi.org/10.5465/amj.2010.0562
- Callan, M. J., Dawtry, R. J., & Olson, J. M. (2012). Justice motive effects in ageism: The effects of a victim's age on observer perceptions of injustice and punishment judgments. *Journal of Experimental Social Psychology*, 48(6), 1343–1349. https://doi.org/10. 1016/j.jesp.2012.07.003
- Cavanagh, G. F., Moberg, D. J., & Velasquez, M. (1981). The ethics of organizational politics. *Academy of Management Review*, 6(3), 363–374. https://doi.org/10.5465/amr.1981.4285767
- Chen, Y.-R., Brockner, J., & Greenberg, J. (2003). When is it "a pleasure to do business with you?" The effects of relative status, outcome favorability, and procedure fairness. *Organizational Behavior and Human Decision Processes*, 92(1–2), 1–21. https://doi.org/10.1016/S0749-5978(03)00062-1
- Chiu, R., & Erdener, C. (2003). The ethics of peer reporting in Chinese societies: Evidence from Hong Kong and Shanghai. *International Journal of Human Resource Management*, 14(2), 335–353. https://doi.org/10.1080/0958519021000029153
- Condly, S. J., Clark, R. E., & Stolovitch, H. D. (2008). The effects of incentives on workplace performance: A meta-analytic review of research studies. *Performance Improvement Quarterly*, 16(3), 46–63. https://doi.org/10.1111/j.1937-8327.2003.tb00287.x

- Cronin, T., Reysen, S., & Branscombe, N. R. (2012). Wal-Mart's conscientious objectors: Perceived illegitimacy, moral anger, and retaliatory consumer behavior. *Basic and Applied Social Psychology*, 34(4), 322–335. https://doi.org/10.1080/01973533. 2012.693347
- Cropanzano, R., Goldman, B., & Folger, R. (2003). Deontic justice: The role of moral principles in workplace fairness. *Journal of Organizational Behavior*, 24, 1019–1024. https://doi.org/10.1002/job.228
- Curtis, M., Robertson, J. C., Cockrell, R. C., & Fayard, L. D. (2021). Peer ostracism as a sanction against wrongdoers and whistleblowers. *Journal of Business Ethics*, 174(2), 333–354. https://doi.org/10.1007/s10551-020-04596-0
- Danilov, A., Biemann, T., Kring, T., & Sliwka, D. (2013). The dark side of team incentives: Experimental evidence on advice quality from financial service professionals. *Journal of Economic Behavior & Organization*, 93, 266–272. https://doi.org/10.1016/j.jebo. 2013.03.012
- De Dreu, C. K. W. (2007). Cooperative outcome interdependence, task reflexivity, and team effectiveness: A motivated information processing approach. *Journal of Applied Psychology*, 92(3), 628–638. https://doi.org/10.1037/0021-9010.92.3.628
- De Dreu, C. K. W., Nijstad, B. A., & Van Knippenberg, D. (2008). Motivated information processing in group judgment and decision making. *Personality and Social Psychology Review*, 12(1), 22–49. https://doi.org/10.1177/10888683073040
- DeMatteo, J. S., Eby, L. T., & Sundstrom, E. (1998). Team-based rewards: Current empirical evidence and directions for future research. *Research in Organizational Behavior*, 20, 141–183.
- Dworkin, T. M., & Baucus, M. S. (1998). Internal vs. external whistleblowers: A comparison of whistleblowing processes. *Journal of Business Ethics*, 17(12), 1281–1298.
- Elfenbein, H. A. (2007). Emotion in organizations: A review and theoretical integration. *Academy of Management Annals*, *1*(1), 315–386. https://doi.org/10.5465/078559812
- Farr, J. L. (1976). Incentive schedules, productivity, and satisfaction in work groups: A laboratory study. *Organizational Behavior and Human Performance*, 17(1), 159–170. https://doi.org/10.1016/ 0030-5073(76)90059-3
- Folger, R. (2001). Fairness as deonance. In S. W. Gilliland, D. D. Steiner, & D. P. Skarlicki (Eds.), *Theoretical and cultural perspectives on organizational justice* (pp. 3–33). Information Age Publishing.
- Folger, R., Cropanzano, R., & Goldman, B. (2005). What is the relationship between justice and morality. In J. Greenberg & J. A. Colquitt (Eds.), *Handbook of organizational justice* (pp. 215–245). Erlbaum.
- Frijda, N. (1986). The emotions. Cambridge University Press.
- Gao, J., Greenberg, R., & Wong-On-Wing, B. (2015). Whistleblowing intentions of lower-level employees: The effect of reporting channel, bystanders, and wrongdoer power status. *Journal of Business Ethics*, 126, 85–99. https://doi.org/10.1007/s10551-013-2039-x
- Garbers, Y., & Konradt, U. (2014). The effect of financial incentives on performance: A quantitative review of individual and team-based financial incentives. *Journal of Occupational and Organizational Psychology*, 87(1), 102–137. https://doi.org/10.1111/joop.12039
- Garvey, C. (2002). Focus on compensation—Steer teams with the right pay. SHRM. Retrieved from https://www.shrm.org/hr-today/news/ hr-magazine/pages/0502garvey-sup.aspx
- Graham, J., Haidt, J., Koleva, S., Motyl, M., Iyer, R., Wojcik, S. P., & Ditto, P. H. (2013). Moral foundations theory: The pragmatic validity of moral pluralism. *Advances in experimental social psychology* (Vol. 47, pp. 55–130). Academic Press.
- Greene, J. D., Morelli, S. A., Lowenberg, K., Nystrom, L. E., & Cohen, J. D. (2008). Cognitive load selectively interferes with utilitarian



- moral judgment. *Cognition*, 107(3), 1144–1154. https://doi.org/10.1016/j.cognition.2007.11.004
- Greene, J. D., Nystrom, L. E., Engell, A. D., Darley, J. M., & Cohen, J. D. (2004). The neural bases of cognitive conflict and control in moral judgment. *Neuron*, 44(2), 389–400. https://doi.org/10. 1016/j.neuron.2004.09.027
- Gross, J. J., & Levenson, R. W. (1995). Emotion elicitation using films. Cognition and Emotion, 9(1), 87–108. https://doi.org/10.1080/ 02699939508408966
- Gundlach, M. J., Douglas, S. C., & Martinko, M. J. (2003). The decision to blow the whistle: A social information processing framework. Academy of Management Review, 28(1), 107–123. https://doi.org/10.5465/amr.2003.8925239
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, 108(4), 814–834. https://doi.org/10.1037/0033-295X.108.4.814
- Haidt, J. (2007). The new synthesis in moral psychology. *Science*, 316(5827), 998–1002. https://doi.org/10.1126/science.1137651
- Harmon-Jones, E., & Allen, J. J. B. (1998). Anger and frontal brain activity: EEG asymmetry consistent with approach motivation despite negative affect valence. *Journal of Personality and Social Psychology*, 74(5), 1310–1316. https://doi.org/10.1037/0022-3514.74.5.1310
- Harris, J., & Bromiley, P. (2007). Incentives to cheat: The influence of executive compensation and firm performance on financial misrepresentation. *Organization Science*, 18(3), 350–367. https://doi. org/10.1287/orsc.1060.0241
- Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis* (2nd ed.). Guilford Publications.
- Huseman, R. C., Hatfield, J. D., & Miles, E. W. (1987). A new perspective on equity theory: The equity sensitivity construct. *Academy of Management Review*, 12(2), 222–234. https://doi.org/10.5465/amr.1987.4307799
- Jones, T. M. (1991). Ethical decision making by individuals in organizations: An issue-contingent model. Academy of Management Review, 16(2), 366–395. https://doi.org/10.5465/amr.1991.42789 58
- Kanfer, R., Frese, M., & Johnson, R. E. (2017). Motivation related to work: A century of progress. *Journal of Applied Psychology*, 102(3), 338–355. https://doi.org/10.1037/apl0000133
- Karau, S. J., & Williams, K. D. (1993). Social loafing: A meta-analytic review and theoretical integration. *Journal of Personality and Social Psychology*, 65(4), 681–706.
- Kerr, S. (1975). On the folly of rewarding A, while hoping for B. Academy of Management Journal, 18(4), 769–783.
- Kim, H., & Gong, Y. (2009). The roles of tacit knowledge and OCB in the relationship between group-based pay and firm performance. *Human Resource Management Journal*, 19(2), 120–139. https://doi.org/10.1111/j.1748-8583.2009.00093.x
- Kish-Gephart, J. J., Harrison, D. A., & Trevino, K. (2010). Bad apples, bad cases, and bad barrels: Meta-analytic evidence about sources of unethical decisions at work. *Journal of Applied Psychology*, 95(1), 1–31. https://doi.org/10.1037/a0017103
- Landman, H., & Hess, U. (2017). Testing moral foundation theory: Are specific moral emotions elicited by specific moral transgressions? *Journal of Moral Education*, 47(1), 34–47. https://doi.org/10.1080/03057240.2017.1350569
- Latane, B., & Nida, S. (1981). Ten years of research on group size and helping. *Psychological Bulletin*, 89(2), 308–324. https://doi.org/ 10.1037/0033-2909.89.2.308
- Li, C., Liang, J., & Farh, J. L. (2020). Speaking up when water is murky: An uncertainty-based model linking perceived organizational politics to employee voice. *Journal of Management*, 46(3), 443–469. https://doi.org/10.1177/014920631879802
- Lindebaum, D., & Geddes, D. (2016). The place and role of (moral) anger in organizational behavior studies. *Journal of*

- *Organizational Behavior*, *37*(5), 738–757. https://doi.org/10.1002/job.2065
- Lotz, S., Okimoto, T. G., Schlosser, T., & Fetchenhauer, D. (2011). Punitive versus compensatory reactions to injustice: Emotional antecedents to third-party interventions. *Journal of Experimental Social Psychology*, 47(2), 477–480. https://doi.org/10.1016/j.jesp. 2010.10.004
- Markovsky, B. (1985). Toward a multilevel distributive justice theory. *American Sociological Review, 50*(6), 822–839. https://doi.org/10.2307/2095506
- Mason, C., & Simmons, J. (2019). Rage against the machine: Moral anger in whistleblowing. *Qualitative Research in Organizations and Management: An International Journal*, 14(3), 337–355. https://doi.org/10.1108/QROM-10-2017-1572
- Mayer, D. M., Nurmohamed, S., Trevino, L. K., Shapiro, D. L., & Schminke, M. (2013). Encouraging employees to report unethical conduct internally: It takes a village. *Organizational Behavior and Human Decision Processes*, 121(1), 89–103. https://doi.org/10.1016/j.obhdp.2013.01.002
- Merriman, K. (2008). Low trust teams prefer individualized pay. *Harvard Business Review*, 86(11), 32.
- Mesmer-Magnus, J. R., & Viswesvaran, C. (2005). Whistleblowing in organizations: An examination of correlates of whistleblowing intentions, actions, and retaliation. *Journal of Business Ethics*, 62(3), 277–297. https://doi.org/10.1007/sl0551-005-0849-1
- Miceli, M. P., & Near, J. P. (1985). Characteristics of organizational climate and perceived wrongdoing associated with whistle-blowing decisions. *Personnel Psychology*, 38(3), 525–544. https://doi.org/10.1111/j.1744-6570.1985.tb00558.x
- Miceli, M. P., & Near, J. P. (1988). Individual and situational correlates of whistle-blowing. *Personnel Psychology*, *41*(2), 267–281. https://doi.org/10.1111/j.1744-6570.1988.tb02385.x
- Milliken, F. J., Morrison, E. W., & Hewlin, P. F. (2003). An exploratory study of employee silence: Issues that employees don't communicate upward and why. *Journal of Management Studies*, 40(6), 1453–1476. https://doi.org/10.1111/1467-6486.00387
- Mitchell, M. S., Baer, M. D., Ambrose, M. L., Folger, R., & Palmer, N. F. (2018). Cheating under pressure: A self-protection model of workplace cheating behavior. *Journal of Applied Psychology*, 103(1), 54–73. https://doi.org/10.1037/apl0000254
- Moore, C., & Gino, F. (2015). Approach, ability, aftermath: A psychological process model to understand unethical behavior at work. Academy of Management Annals, 9(1), 235–289. https://doi.org/ 10.5465/19416520.2015.1011522
- Near, J. P., & Miceli, M. P. (1985). Organizational dissidence: The case of whistle-blowing. *Journal of Business Ethics*, 4(1), 1–16.
- Nelissen, R. M. A., & Zeelenberg, M. (2009). Moral emotions as determinants of third-party punishment: Anger, guilt, and the functions of altruistic sanctions. *Judgment and Decision Making*, 4(7), 543–553.
- Niven, K., & Healy, C. (2016). Susceptibility to the 'dark side' of goal-setting: Does moral justification influence the effects of goals on unethical behavior? *Journal of Business Ethics*, *137*(1), 115–127. https://doi.org/10.1007/s10551-015-2545-0
- Nyberg, A. J., Maltarich, M. A., Abdulsalam, D. D., Essman, S. M., & Cragun, O. (2018). Collective pay for performance: A crossdisciplinary review and meta-analysis. *Journal of Management*, 44(6), 2433–2472. https://doi.org/10.1177/0149206318770732
- O'Reilly, J., Aquino, K., & Skarlicki, D. (2016). The lives of others: Third parties' responses to others' injustice. *Journal of Applied Psychology*, 101(2), 171–189. https://doi.org/10.1037/ap10000040
- Ordonez, L. D., Schweitzer, M. E., Galinsky, A. D., & Bazerman, M. H. (2009). Goals gone wild: The systematic side effects of overprescribing goal setting. *Academy of Management Perspectives*, 23(1), 6–16. https://doi.org/10.5465/amp.2009.37007999



- Park, R., & Kruse, D. (2013). Group incentives and financial performance: The moderating role of innovation. *Human Resource Management Journal*, 24(1), 77–94. https://doi.org/10.1111/1748-8583.12022
- Park, T. Y., Park, S., & Barry, B. (2022). Incentive effects on ethics. Academy of Management Annals, 16(1), 297–333. https://doi.org/ 10.5465/annals.2020.0251
- Pretty, M. M., Singleton, B., & Connell, D. W. (1992). An experimental evaluation of an organizational incentive plan in the electric utility industry. *Journal of Applied Psychology*, 77(4), 427–436. https:// doi.org/10.1037/0021-9010.77.4.427
- Rose, J. M., Brink, A. G., & Norman, C. S. (2018). The effects of compensation structures and monetary rewards on managers' decisions to blow the whistle. *Journal of Business Ethics*, 150, 853–862. https://doi.org/10.1007/s10551-016-3222-7
- Scherer, K. R. (2001). Appraisal considered as a process of multilevel sequential checking. In K. R. Scherer, A. Schorr, & T. Johnstone (Eds.), *Appraisal processes in emotion: Theory, methods, research* (pp. 92–120). Oxford University Press.
- Shaver, P., Schwartz, J., Kirson, D., & O'Connor, C. (1987). Emotion knowledge: Further exploration of a prototype approach. *Journal* of Personality and Social Psychology, 52(6), 1061–1086. https:// doi.org/10.1037/0022-3514.52.6.1061
- Shea, P., & Guzzo, A. (1987). Group effectiveness: What really matters? *Sloan Management Review*, 28(3), 25–31.
- Sinaceur, M., Van Kleef, G. A., Neale, M. A., Adam, H., & Haag, C. (2011). Hot or cold: Is communicating anger or threats more effective in negotiation? *Journal of Applied Psychology*, 96(5), 1018–1032. https://doi.org/10.1037/a0023896
- Smith, C. A., & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology*, 48(4), 813–838.
- Smith, R. H., & Kim, S. H. (2007). Comprehending envy. *Psychological Bulletin*, 133(1), 46–64.
- Tai, K., Narayanan, J., & McAllister, D. J. (2012). Envy as pain: Rethinking the nature of envy and its implications for employees and organizations. *Academy of Management Review*, 37(1), 107–129. https://doi.org/10.5465/amr.2009.0484
- Takahashi, H., Kato, M., Matsuura, M., Mobbs, D., Suhara, T., & Okubo, Y. (2009). When your gain is my pain and your pain is my gain: Neutral correlates of envy and schadenfreude. *Science*, 323(5916), 937–939. https://doi.org/10.1126/science.1165604
- Thau, S., Derfler-Rozin, R., Pitesa, M., Mitchell, M. S., & Pillutla, M. M. (2015). Unethical for the sake of the group: Risk of social

- exclusion and pro-group unethical behavior. *Journal of Applied Psychology*, 100(1), 98–113. https://doi.org/10.1037/a0036708
- Trevino, L. K., Den Nieuwenboer, N. A., & Kish-Gephart, J. J. (2014). (Un)ethical behavior in organizations. *Annual Review of Psychology*, 65, 635–660. https://doi.org/10.1146/annurev-psych-113011-143745
- Trevino, L. K., & Victor, B. (1992). Peer reporting of unethical behavior: A social context perspective. Academy of Management Journal, 35(1), 38–64. https://doi.org/10.5465/256472
- Umphress, E. E., Bingham, J. B., & Mitchell, M. S. (2010). Unethical behavior in the name of the company: The moderating effect of organizational identification and positive reciprocity beliefs on unethical pro-organizational behavior. *Journal of Applied Psychology*, 95(4), 769–780. https://doi.org/10.1037/a0019214
- Van Dijk, W. W., Ouwerkerk, J. W., Goslinga, S., Nieweg, M., & Gallucci, M. (2006). When people fall from grace: Reconsidering the role of envy in schadenfreude. *Emotion*, 6(1), 156–160. https://doi.org/10.1037/1528-3542.6.1.156
- Victor, B., Trevino, L. K., & Shapiro, D. L. (1993). Peer reporting of unethical behavior: The influence of justice evaluations and social context factors. *Journal of Business Ethics*, 12(4), 253–263.
- Wageman, R. (2001). How leaders foster self-managing team effectiveness: Design choices versus hands-on coaching. *Organization Science*, *12*(5), 559–577. https://doi.org/10.1287/orsc.12.5. 559.10094
- Watson, D., Wiese, D., Vaidya, J., & Tellegen, A. (1999). The two general activation systems of affect: Structural findings, evolutionary considerations, and psychological evidence. *Journal of Personality and Social Psychology*, 76(5), 820–838.
- Weiss, M., & Morrison, E. W. (2019). Speaking up and moving up: How voice can enhance employees' social status. *Journal of Organizational Behavior*, 40(1), 5–19. https://doi.org/10.1002/job.2262

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Springer Nature or its licensor (e.g. a society or other partner) holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.

