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Conflicting Loyalties: Cognitive Abstraction Drives Whistleblowing Behavior Among Those Who Value Loyalty

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Abstract

Potential whistleblowers, that is, people contemplating revealing potentially damaging information about unethical or unlawful behavior to a third party, are often described as facing a conflict between loyalty and fairness. Yet, whistleblowers often may feel a sense of *conflicting loyalties*: loyalty towards the party (e.g., a colleague) that may be damaged by their blowing the whistle and loyalty towards the party (e.g., society at large) that may benefit. Understanding how people deal with such conflict of loyalties is critical for increasing whistleblowing and reducing unethical behavior. In three studies (total $N = 929$), we draw on construal level theory to demonstrate that, when loyalty motives are salient, the level of abstractness at which people construe a whistleblower dilemma affects whistleblowing behavior. Because the party that stands to benefit from whistleblowing is typically more global than the party that will be damaged, cognitive abstraction increases whistleblowing behavior relative to concreteness, particularly when loyalty (vs. fairness) is a salient motive. Moreover, Study 3 findings reveal that cognitive abstraction predicts whistleblowing through increased identification with global entities among people for whom loyalty is more salient. Hence, we demonstrate that whistleblowing decisions are influenced not only by the salience of certain moral motives, but also the way that people construe whistleblower dilemmas, namely, relatively abstractly or concretely. Altogether, our research offers a novel understanding of whistleblowing behavior—as a conflict between loyalties—and identifies a cognitive mechanism for promoting whistleblowing and reducing unethical behavior.

Keywords Whistleblowing · Construal level · Abstraction · Loyalty · Fairness

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Introduction

In September 2020, a recently fired Facebook employee, Sophie Zhang, leaked an internal memo alleging that Facebook had willingly allowed misuse of its platform by many prominent politicians from around the world. Asked why she had leaked the memo, Zhang answered, "I consider myself to have been put in an impossible spot–caught between my loyalties to the company and my loyalties to the world as a whole" (Silverman et al., 2020). Whistleblowing—revealing some damaging information about someone or a group of people to a third party (e.g., the media; Mesmer-Magnus & Viswesvaran, 2005)—is a morally ambiguous action. Most of the literature describes this moral ambiguity as stemming from a conflict between people's commitment to an ethic of truth or fairness and their commitment to their in-group (i.e., loyalty)—the so-called "fairness-loyalty trade off" (Waytz et al., 2013). However, as the case above illustrates, whistleblowers often report to experience another type of moral conflict: *A conflict between different loyalties*.

In the current paper we explore how potential whistleblowers deal with conflicting loyalties. We start from the observation that the loyalties in question typically operate at different levels: A whistleblower may be driven to reveal the truth out of a sense of loyalty to an inclusive collective (e.g., society as a whole), but driven to stay silent by a sense of loyalty to a more exclusive in-group. Put differently, they may be loyal to a more abstract, decontextualized entity versus a more concrete, contextualized entity, a distinction that is captured by construal level theory (Liberman & Trope, 2014; Trope & Liberman, 2010). Therefore, drawing on construal level theory, we suggest that how whistleblowers construe their dilemma–whether more abstractly or concretely—affects the target of loyalty that is highlighted, and is therefore a deciding factor in whistleblowing decisions, particularly when loyalty concerns are salient.

In a nutshell, Construal Level Theory (CLT; Trope & Liberman, 2010) posits that the psychological distance of an event influences how abstract or concrete our thinking about it becomes. When events are perceived as distant (in time, space, social distance, or hypotheticality), we tend to think about them more abstractly. Conversely, events perceived as close are thought about more concretely. In the current paper, we are mostly interested in the behavioral consequences of abstraction and concreteness. More in particular, research has shown that when construing matters abstractly, psychologically more distant elements are more likely to influence behavior, whereas when things are construed more concretely, psychologically closer elements exert more influence (Kalkstein et al., 2016). Our hypothesizing relies on the consideration that more overarching collectives (like humanity) tend to be more psychologically distant than more exclusive groups (like one's immediate colleagues). In other words, we use CLT as a lens showing the two-sided nature of loyalty, i.e., being a moral motive that binds us to *both* the more inclusive and more exclusive groups to which we belong.

We conducted two experimental studies to examine our reasoning, testing the effect of construal level on whistleblowing under conditions in which loyalty is (or is not) salient. In a third study, we provide initial correlational evidence that supports

our theorizing that the effect of construal level on whistleblowing is explained by people feeling more aligned with the interest of more inclusive collectives, particularly among people for whom morality motivation is more (vs. less) salient.

Our research makes several contributions. First and foremost, we argue and show how the construal level (i.e., the level of abstractness) at which a would-be whistleblower construes the situation, determines whether they decide to blow the whistle. Second, in contrast with much of the recent literature, which has tended to describe the psychology of whistleblowing in terms a loyalty-fairness trade-off (Dungan et al., 2015), we show how whistleblowing decisions also involve a trade-off between different loyalties (Schein, 2020). Taken together, our research helps to elaborate how organizations might better manage the tensions between conflicting loyalties; contextual factors that highlight the inclusive collectives, rather than the exclusive collectives, to which employees belong, may remove some of the psychological barriers to whistleblowing behavior.

Background Theory

The Whistleblower's Dilemma

Whistleblowers, such as Sophie Zhang, are often hailed as heroes who courageously reveal uncomfortable truths to the wider public. At the same time, whistleblowers are known to face considerable backlash and retaliation from people within their community or organization (Dyck et al., 2010) who frequently see them as treacherous and untrustworthy (Natapoff, 2004). This moral ambiguity is reflected in the literature, which typically describes the whistleblower's dilemma as a conflict between two different ethics, or types of moral values—an ethic of fairness, on the one hand, which revolves around moral values like truth and transparency, and an ethic of loyalty, which revolves around values such as community and being a good group member (Dungan et al., 2019).

Loyalty and fairness are two of the moral foundations, or different types of ethics, that are identified within moral foundations theory (Haidt & Graham, 2009)—one of the dominant perspectives within moral psychology (Graham et al., 2018). According to moral foundations theory, the moral domain is not unified—there is no one principle that people use to distinguish right from wrong. Rather, there are at least five such principles, or foundations, that people may or may not value equally when faced with a morally-relevant decision (Graham et al., 2013). Each of these foundations is seen as the result of an adaptive challenge that human beings have faced over the course of our development (Haidt & Kesebir, 2007).

The moral foundation of loyalty is theorized to be the result of the challenge that humans faced to form cohesive coalitions (Graham et al., 2013). As a result, when people value loyalty, either dispositionally or because loyalty is salient, people value belonging to social collectives such as dyads and groups, and contribute to these collectives, while being vigilant about possible cheaters, free-riders, and traitors (Haidt & Graham, 2009; Pietraszewski, 2016). In contrast, the moral foundation of fairness is thought to have emerged to allow for effective

cooperation with non-kin (DeScioli, 2016; Haidt & Graham, 2009). As such, the moral foundation of fairness emphasizes the importance of universalizable moral values (e.g., the truth) and non-target-specific ethics. In contrast, the foundation of loyalty is about target-specific moral motives (Pietraszewski, 2016). Valuing loyalty involves prizing, and sticking with, established relations, even if that comes at a price such as, for example, not being able to tell the truth (Tooby & Cosmides, 2010). While loyalty may derivatively be expressed in context of concepts or notions (e.g., feminism, democracy etc.)—most theorists assume that loyalty is most frequently and properly attached to group membership (Kleinig, 2022).

People may differ in the extent in which they value different moral foundations. For instance, whereas political conservatives have been shown to value both loyalty and fairness, political liberals tend to value fairness much more than loyalty (Sauer, 2015). Additionally, the extent to which a foundation is salient may be situationally induced (Cornwell & Higgins, 2014). Key to our research, Waytz and colleagues (2013), over a series of experimental studies, showed that people primed with the concept of loyalty were less likely to blow the whistle on a fellow participant compared to people primed with the concept of fairness.

However, this line of work does not thematize the notion that loyalty also involves an aversion and vigilance against cheating (Haidt & Graham, 2009). This means that a sense of loyalty may conceivably push a would-be whistleblower in two different directions at the same time: Staying silent and blowing the whistle. Whistleblowing does not occur in a social vacuum: Rather, potential whistleblowers may often simultaneously feel they owe loyalty to an entity (e.g., a colleague or their organization) *about which* they can reveal damaging information, and to the entity (e.g., society) *to whom* they reveal such information. Indeed, recent theorizing by Anvari and colleagues (2019) depicts whistleblowing dilemmas as a tension between a potential whistleblower's ingroup (offending group) identity and their superordinate group identity. But how do people deal with such conflicting loyalties? The literature on whistleblowing provides relatively little in the way of an answer. This state of the literature may be partially due to the fact that the whistleblower's dilemma is most often conceptualized as a conflict between different moral *motivations*—that is, as a fairness-loyalty trade-off (Dungan et al., 2015, 2019) rather than a conflict *within* one moral foundation.

Berry and colleagues (2021, p. 4) argue that "when loyalties are at odds with each other (…), people often experience a sense of ease and fluency with judgments and behaviors that are consistent with the salient object of loyalty." Hence, it is important to consider the conditions under which specific *loyalty targets* (e.g., inclusive, broad collectives vs. exclusive, narrow groups) may be more or less salient to potential whistleblowers. As explained in the next section, construal level theory captures the distinction between people's representation of entities at varying levels of inclusivity (i.e., abstraction), thereby offering insight into the conditions that should make specific loyalty targets more or less salient (Burgoon et al., 2013). In other words, the salient target of our loyalty depends on whether the whistleblowing dilemma is construed more abstractly or concretely.

In contrast to the notion that the salience of targets of loyalty determines how loyalty-motivated behavior plays out in practice (Berry et al., 2021), target salience should be less relevant for fairness-motivated would-be whistleblowers. As noted, fairness is suggested to have evolved as a motive to deal with non-kin (DeScioli, 2016; Haidt & Graham, 2009), and therefore involves *not* discriminating between targets on the basis of their social distance or inclusiveness, but rather on the grounds of equity or equality (Graham et al., 2013). As such, target salience should matter less to whistleblowing behavior when potential whistleblowes are fairness-motivated.

Construal Level and Whistleblowing

Construal Level Theory (CLT; Liberman & Trope, 2014; Trope & Liberman, 2010; Wiesenfeld et al., 2017), upon which we build here, suggests that people can mentally represent information at varying levels of abstraction or concreteness (i.e., construal levels). Information represented at higher, abstract levels of construal tends to be represented in a gestalt-like manner and in terms of broad, inclusive categories (Burgoon et al., 2013). In contrast, information represented at lower, concrete levels tends to be represented with more details and in terms of narrow categories (Trope & Liberman, 2000). For example, a group (e.g., a community) may be represented abstractly in terms of features that belong to the group itself, or concretely in terms of features that belong to individual members of the group (Hess et al., 2018).

Engaging in cognitive abstraction can be likened to climbing to a high spot (e.g., a tower) to get a better view (Kalkstein et al., 2017). Whereas abstraction allows one to expand their mental horizons and consider a relatively broad set of targets (i.e., "see the forest"), concreteness facilitates a focus on what is, as it were, right in front of oneself (i.e. "the trees"; Marguc et al., 2011; Trope et al., 2021). Conceptually, social inclusiveness and abstractness of an entity go hand in hand: Society is a more abstract entity than your family, an organization as an entity is more abstract than its individual employees and so on. This follows from the very definition of abstraction. Abstraction, in general, involves subsuming particular individual exemplars under a common banner (Liberman & Trope, 2014)—for example, a sedan, an SUV, and a hatchback are all types of cars, and a car, a bike, and a truck are all means of transportation. The same is true in the social sphere: Entities we encounter there may be relatively abstract, by virtue of their including multiple subgroups and individuals, or relatively concrete, because they are these individuals or subgroups nested in a more inclusive collective (Hess et al., 2018).

We have argued that a whistleblower's dilemma can be experienced as a conflict between loyalties to entities at varying levels of social inclusiveness (e.g., loyalty to one's company vs. loyalty to the world, or loyalty to one's academic supervisor vs. the scientific community at large; Anvari et al., 2019)—driving one in opposite directions. Thus, from this perspective, a whistleblower's dilemma is also a conflict between loyalties to entities at varying levels of abstractness or concreteness. For example, one's company is a concrete exemplar of a subgroup that is embedded in

the world at large, one's supervisor is a concrete member of the scientific community and so on.

Hence, construing a whistleblower's dilemma at high levels, in relatively abstract terms, highlights the more inclusive and abstract entity (e.g., the world, the scientific community) and its interests. In contrast, construing the dilemma on a low, concrete level, highlights the interests of the more exclusive and concrete entity in question (e.g., one's company, one's academic advisor). If that is true, whistleblowers motivated by loyalty should be more (vs. less) likely to blow the whistle when they construe the situation they are facing on abstract (vs. concrete) levels. After all, as we have seen, blowing the whistle is typically in the interest of the more inclusive collective, and against the interest of the less inclusive group in question.

Berry and colleagues (2021) show that people who struggle with conflicts of loyalties experience a sense of fluency when they act in ways that are aligned with the most salient target of loyalty. We suggest that abstract construal makes more inclusive collectives salient, whereas concrete construal makes less inclusive collectives salient. Hence, potential whistleblowers construing the situation abstractly should experience more fluency when acting in the interests of the more inclusive collectives (i.e., blow the whistle), whereas potential whistleblowers construing the situation more concretely should experience a sense of fluency when refraining from blowing the whistle and so protecting the interests of more exclusive groups.

In summary, construal level, or cognitive abstraction, should drive whistleblowing behavior especially when loyalty (rather than fairness) is salient. More formally, this reasoning culminates in the following interaction hypothesis:

> *Hypothesis 1*: High (vs. low) level construal increases whistleblowing behavior, but mainly when loyalty (vs. fairness) is salient.

Overview of the Studies

We tested our focal Hypothesis 1 in two experimental studies (Studies 1 and 2), both examining whistleblowing as a behavioral dependent variable. In both studies, we manipulated the salience of loyalty and fairness. We measured construal level as a disposition in Study 1 using a validated individual difference measure and manipulated it in Study 2 by varying participant perceived temporal distance from the offense, a method commonly used to situationally induce cognitive abstraction.

We further strengthened our test of Hypothesis 1 in Study 3 by conducting a correlational study aimed at providing more evidence for our theoretical argument that construal level influences people's identification with more inclusive entities and therefore drives whistleblowing behavior. Arguably, identification with all humanity is the most inclusive collective compared to identification with more local ingroups. Thus, we measured people's identification with all humanity using a validated measure in addition to our focal variables to examine its mediating role. Study 3 is more

fully developed later in the paper. All data and materials for our studies are available on https://osf.io/sdx2a/?view_only=ccbfd8e607844b64b5fd13C2a530da1c1.

Study 1

Study 1 was a mixed design in which we assessed cognitive abstraction as a dispositional variable, and we experimentally manipulated the salience of loyalty vs. fairness.

Method

Participants. Power analyses indicated that a sample size of $N = 157$ would have resulted in 80% power to detect an interaction effect with Cohen's $f^2 = 0.05$ at $\alpha = 0.05$ (Champely et al., 2018). Deliberately oversampling, we invited 400 individuals from the US, Western Europe, or Canada to participate in our study via Amazon Mechanical Turk (MTurk) crowdsourcing platform. One participant started the study but did not finish reducing our effective N to 399, $M_{age} = 38.72$, $SD = 10.47$. With the current sample size, it was estimated that the minimal detectable size of the effect with 80% power and $\alpha = 0.05$ was $f^2 = 0.02$ (Ben-Shachar et al., 2020). Of the participants, 204 identified as being female (51.1%), 2 did not want to disclose their gender identity (0.5%), and the others identified as male (48.3%).

Procedure. First, we solicited informed consent. We then administered Reyt and Wiesenfeld's (2015) Work-Based Construal Level (WBCL) as a measure of dispositional construal level (see Measures). After this, we induced loyalty vs. fairness motivations (see Manipulation). Then, we provided participants with the opportunity to blow the whistle on a fellow MTurk worker (or refrain from doing so).

Specifically, we told participants that we had collected some survey responses from other MTurk workers in a previous study and needed some help distinguishing between trustworthy and untrustworthy responses in the dataset. To set the stage for the whistleblower's dilemma we were to confront participants with, we also told them that marking untrustworthy responses as trustworthy would reflect badly upon the MTurk community as a whole. We then provided participants with the responses, ostensibly collected from a fellow MTurk worker. (Our cover story and the responses from the fellow worker were, unbeknownst to the participant, fictional.) The focal responses were clearly untrustworthy: The fellow worker had clearly lied to us (a moral transgression). By asking participants whether the focal responses were trustworthy and should be added to our dataset, we provided them with an opportunity to blow the whistle. We modelled our procedures on studies by Hildreth and colleagues (2016) and Waytz and colleagues (2013).

We employed an instructional attention check (Hauser & Schwarz, 2016; Oppenheimer et al., 2009), a common method to detect inattentive responding in online samples (Paolacci & Chandler, 2014). Specifically, we asked participants to ignore a question ("What is your favorite color") and to provide a specific answer

("blue") to indicate that they read our instructions. Six participants failed this check and were subsequently filtered out of the dataset, reducing our effective N to 393. No significant differences were found on demographic variables or key variables of interest between these participants and the participants still in our dataset (all Fs < 1, all ps > 0.600, all η^2s < 0.001). At the end of the study (and in Study 2 to follow), participants were fully debriefed regarding the purpose and the deception involved and sent back to MTurk for payment; no objections to the paradigm were reported.

Measures and Manipulation

Construal level. To measure participants' tendency to engage in cognitive abstraction, we administered Reyt and Wiesenfeld's (2015) Work-Based Construal Level (WBCL) scale. The WBCL is a validated alternative to the Behavioral Identification Form (Vallacher & Wegner, 1989) within the work domain and is commonly used in construal level research (Carter et al., 2020; Emirza & Katrinli, 2022; Holt et al., 2021; Reyt et al., 2016). The WBCL asks respondents which of two re-descriptions of a work-related activity: one in terms of higher order goals, the other in terms of lower order means (e.g., "analyzing a dataset"; goal-based re-description: "identifying trends"; means-based re-description: "comparing numbers"). Since goals are more abstract than means (Carrera et al., 2019; Vallacher & Wegner, 1989) a general preference to describe behavior in terms of goals is indicative of a cognitive style marked by high construal levels, whereas a preference for means indicates a cognitive style marked by low construal levels. The WBCL uses a 6-point Likert scale with the two re-descriptions as scale anchors, $M = 3.56$, $SD = 1.02$. We averaged responses to the WBCL into a reliable construal level index, Cronbach's $\alpha = 0.87$.

Loyalty- and fairness-salience manipulation. To induce loyalty (fairness) salience we modelled our procedures on those developed by Waytz et al. (2013) as well as Hildreth et al. (2016). In the loyalty (fairness) condition, we first provided participants with a definition of loyalty (fairness): "By loyalty, we mean the idea of looking out for one's friends, co-workers and family, and that you should stick by the people close to you to make sure they are treated especially well/right." ("By justice, we mean the idea that there are rules that apply to all people equally, and no one is immune to being punished if they break these fundamental rules."). We then asked participants to write a few lines about why it is important to be loyal (fair). Next, we asked participants to write a few lines about a time in which they behaved in a loyal (fair) manner. Finally, we asked participants to explicitly compare loyalty and fairness. We told them that some people considered loyalty (fairness) the most important value, whereas others considered fairness (loyalty) to be more important. We then asked them to write a few lines arguing why loyalty is more important than fairness (fairness more important than loyalty). This procedure has been found to reliably induce the salience of loyalty and fairness (Waytz et al., 2013).

Dependent variable: Whistleblowing behavior. We adapted a four-item measure of whistleblowing behavior modelled on the instrument developed by Waytz et al. (2013): "Please tell us, would you recommend that we include this submission in

our dataset?" (1 = definitely include; 7 = definitely exclude); "Please report: To what extent are the answers of the previous participant accurate?" (1 = completely accurate; 7 = completely inaccurate); "Please report: To what extent are the answers of the previous participant reliable? (1 = completely reliable; 7 = completely unreliable); "Please report: To what extent are the answers of the previous participant sincere?" (1 = completely sincere; 7 = completely insincere). Responses were averaged into a reliable scale, Cronbach's $\alpha = 0.94$, $M = 5.51$, $SD = 1.73$.

Loyalty- and fairness-salience manipulation check. We coded participants' responses to our loyalty- and fairness-salience induction questions using Pennebaker and colleagues' (2015) Linguistic Inquiry and Word Count (LIWC) software, a text analysis software program. We used the Moral Foundations Dictionary 2.0 developed by Frimer and colleagues (2019). For each participant, we calculated the proportion of words in their response to the questions that fell into the FairnessVirtue and LoyaltyVirtue lemmas of this dictionary, which contain words related to fairness and loyalty, respectively. We expected that, on average, the number of fairness-related words would be higher in the fairness condition, whereas the number of loyalty-related words would be higher in the loyalty condition.

Results

Loyalty- and fairness-salience manipulation check. Given that these variables are frequency counts, we estimated two Poisson regression models, one with the number of loyalty words and another with the number of fairness words as outcome variables; in both cases, our predictors were the loyalty-salience manipulation, cognitive abstraction, and their interaction. We effect-coded our loyalty-salience prime (−1 = loyalty; 1 = fairness). In case of loyalty words, we found a significant effect of our manipulation on the number of loyalty-related words participants used, $b = -0.92$, $SE = 0.05$, $z = -19.65$, $p < 0.001$, $IRR = 0.40$. The number of loyalty words was substantially higher in texts written by participants primed with loyalty, $M = 4.17$, $SD = 1.90$, compared to those participants primed with fairness, $M = 0.67$, $SD = 0.90$. In the case of fairness words, we also found an effect of the loyalty-salience prime but in the opposite direction, $b = 1.28$, $SE = 0.07$, $z = 18.14$, $p < 0.001$, $IRR = 3.59$. The number of fairness words used by participants was substantially higher in the fairness-prime condition, $M = 3.56$, $SD = 2.06$, compared to the loyalty-prime condition, $M = 0.28$, $SD = 0.52$.

In both cases, the main effects of abstraction were nonsignificant, for loyalty words: $b = -0.01$, $SE = 0.05$, $z = -0.32$, $p = 0.751$, $IRR = 0.99$; for fairness words: $b = 0.12$, $SE = 0.08$, $z = 1.58$, $p = 0.113$, $IRR = 1.13$. The Abstraction × Loyalty salience interactions were nonsignificant as well, for loyalty words: $b = -0.01$, $SE = 0.05$, $z = -0.27$, $p = 0.787$, $IRR = 0.98$; for fairness words: $b = -0.10$, $SE = 0.08$, $z = -1.33$, $p = 0.184$, $IRR = 0.91$.

Focal analyses to test Hypothesis 1. We found no significant main effects of either predictor on whistleblowing: loyalty salience, $\beta = 0.08$, $SE = 0.05$, $t[392] = 1.64$, $p = 0.103$, or cognitive abstraction, $\beta = 0.04$, $SE = 0.05$, $t[392] = 0.80$, $p = 0.422$.

However, the Abstraction × Loyalty Salience effect on whistleblowing behavior was significant, $\beta = -0.11$, $SE = 0.05$, $t[392] = -2.17$, $p = 0.031$, $f^2 = 0.02$ (see Fig. 1).

Examination of the simple effects of cognitive abstraction as a function of the loyalty motive (vs. fairness) showed a pattern consistent with our directional predictions. In line with suggestions by Fabian (1991) and Shaffer (1991, 1995), among others, we used two-sided tests for the overall main and interactive effects but one-sided tests for the simple effects. Probing this interaction using simple slope analysis, we found a significant positive simple effect of construal level for participants in the loyalty salience condition, $\beta = 0.16$, $SE = 0.08$, $t[392] = 2.04$, $p = 0.021$, indicating that among participants primed with loyalty, cognitive abstraction predicts whistleblowing behavior. No such simple effect was found for participants in the fairness condition, $\beta = -0.07$, $SE = 0.07$, $t[392] = -0.97$, $p = 0.167$. These results support Hypothesis 1.

From the opposite vantage point, we found the difference between the loyalty and fairness conditions to be statistically significant at low levels of cognitive abstraction; at -1 *SD*, $\beta = 0.18$, $SE = 0.07$, $t[392] = 2.58$, $p = 0.010$. The difference between the loyalty and fairness conditions was not significant at high levels of cognitive abstraction; at $+1$ *SD*, $\beta = -0.04$, $SE = 0.07$, $t[392] = -0.50$, $p = 0.308$.

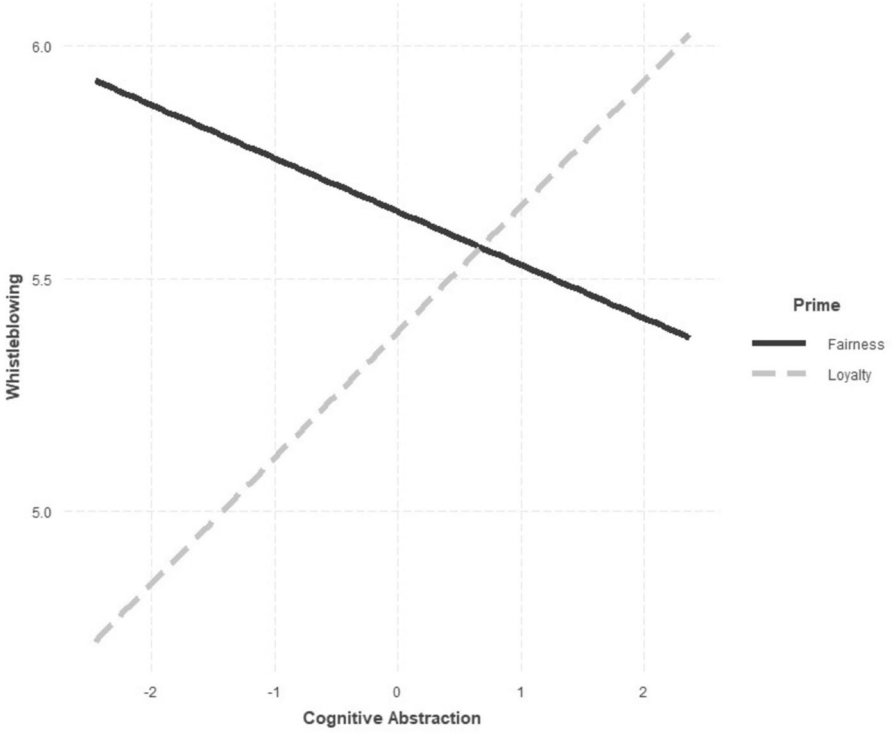

Fig. 1 Whistleblowing behavior in Study 1 as a function of cognitive abstraction and loyalty- vs. fairness-salience manipulation

Study 2

In Study 1, we measured, rather than manipulated, construal level, which does not permit causal conclusions about the impact of abstraction. To address this limitation, in Study 2 we experimentally varied perceived temporal distance between the participant and an offender, a method used in past research to manipulate cognitive abstraction (Soderberg et al., 2015). We also manipulated the salience of loyalty vs. fairness as in Study 1. Finally, for generalizability, we modified the nature of the transgression about which participants blow the whistle. Thus, Study 2 provides a constructive replication (Lykken, 1968).

Method

Participants. For the 2×2 design, a sample size of about 103 observations would have resulted in 80% power to detect an interaction effect with $f=0.28$ and $\alpha=0.05$ (Lu et al., 2017). We decided to invite 200 online MTurk participants. Of these, 8 left the study only partially completed, leaving us with an effective N of 192, $M_{age}=34.95$, $SD=9.01$. With that sample size, it was estimated that the minimal size of the effect we could detect with 80% power and $\alpha=0.05$ was $f=0.20$. Of our participants, 68 identified as female (35.4%), 1 declined to disclose their gender-identity or identified as a different gender, and the rest identified as male (64.1%).

Procedure. As noted above, there were two important differences in the procedures we used for Study 2, when compared to Study 1. First, rather than measuring construal level, we manipulated the temporal distance between the time that participants completed the study, and the time at which the fellow worker ostensibly participated (see below for details). Temporal distance manipulations have been found to reliably induce levels of construal (Fujita et al., 2008; Liberman & Trope, 1998; Sanchez et al., 2021).

In addition, we changed the nature of the transgression that the fellow MTurker ostensibly committed. We did this because in Study 1 the fellow worker's behavior could have been understood as prosocial rule-breaking (Dahling et al., 2012) by some of our participants (in Study 1, the worker claimed to have lied on behalf of fellow workers). Therefore, as a robustness check on our result, in Study 2 we confronted participants with a perpetrator who appeared to have acted selfishly. Specifically, we used a prompt developed by Waytz and colleagues (2013): Participants were told that we had asked the fellow worker to write down all the numbers from 1 to 30 in *words* (e.g., one, two, three…) but they responded by writing down only the numbers 1, 2 and 30 in *digits* (see Supplementary Materials).

Manipulations and Measures

Temporal distance manipulation. In the *close* condition, we told participants that we collected responses from a fellow worker "24 h ago." In the *far* condition, we told

participants responses had been collected "12 months ago." This manipulation of temporal distance is in keeping with common practices in the literature (Agerström & Björklund, 2009; Liberman et al., 2002; Trope & Liberman, 2000).

Loyalty- and fairness-salience manipulation. We used the same procedures to induce the salience of loyalty versus fairness as in Study 1.

Dependent variable: Whistleblowing behavior. We asked participants to report the extent to which they thought the fellow worker "violated any rules or codes of MTurk" (1 = "completely untrue" and 7 = "completely true"), $M = 4.91$, $SD = 1.79$. We adopted this approach from Waytz et al. (2013). We chose to use the single-item approach (instead of the multi-item scale in Study 1) because the violation of Study 2 was not about deception as it was in Study 1, and thus questions about reliability and accuracy were not relevant.

Loyalty- and fairness-salience manipulation check. Like in Study 1, to check the effectiveness of the loyalty- and fairness-salience manipulation, we again automatically coded the responses to our induction using the FairnessVirtue and LoyaltyVirtue lemmas from the Moral Foundations Dictionary 2.0 (Frimer et al., 2019).

Results

Loyalty- and fairness-salience manipulation check. As in Study 1, we estimated two Poisson regression models, one with the number of loyalty-words participants used as the outcome variable, and another with the number of fairness-words as the outcome variable; in both cases, loyalty salience and temporal distance manipulations were entered as predictors, as well as their interaction. In the case of loyalty-words, we found a significant effect of the loyalty-salience manipulation on the number of loyalty-related words, $b = -0.94$, $SE = 0.07$, $z = -14.14$, $p < 0.001$, $IRR = 0.39$. The number of loyalty words was substantially higher in texts written by participants primed with loyalty, $M = 4.48$, $SD = 2.09$, when compared to those participants primed with fairness, $M = 0.69$, $SD = 1.12$. In the case of fairness-related words, we similarly found an effect of the loyalty-salience manipulation but in the opposite direction, $b = 1.50$, $SE = 0.12$, $z = 11.97$, $p < 0.001$, $IRR = 4.47$. The number of fairness words used by participants was found to be substantially higher among participants primed with fairness, $M = 3.53$, $SD = 2.04$, when compared to the those primed with loyalty, $M = 0.18$, $SD = 0.48$.

In both cases, the main effects of temporal distance were nonsignificant, for loyalty: $b = -0.08$, $SE = 0.07$, $z = -1.23$, $p = 0.219$, $IRR = 0.92$; for fairness: $b = 0.02$, $SE = 0.13$, $z = 0.12$, $p = 0.904$, $IRR = 1.02$. The Abstraction × Loyalty salience interactions on the manipulation checks were found to be nonsignificant as well, for loyalty $b = -0.08$, $SE = 0.07$, $z = -1.23$, $p = 0.219$, $IRR = 0.92$; for fairness: $b = 0.02$, $SE = 0.13$, $z = 0.20$, $p = 0.844$, $IRR = 1.03$.

Focal analyses to test Hypothesis 1. A 2 (loyalty salience) × 2 (temporal distance) ANOVA revealed no significant main effects of either the temporal distance manipulation, $F[1, 188] = 0.004$, $p = 0.947$, $\eta^2 < 0.001$, or the loyalty- vs.

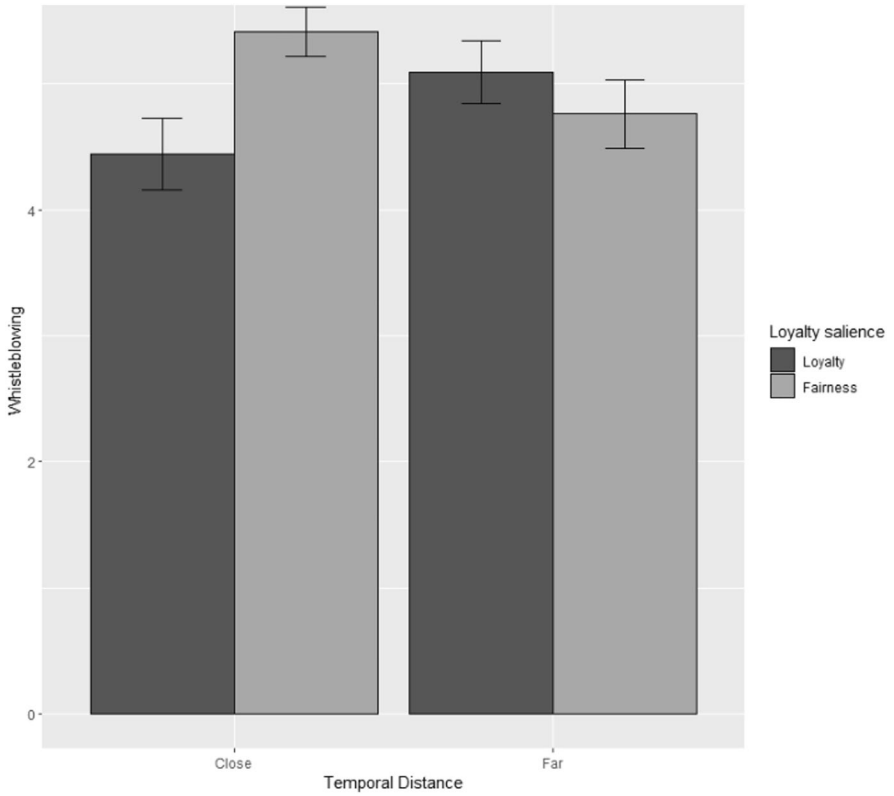

Fig. 2 Whistleblowing behavior in Study 2 as a function of the loyalty- vs. fairness-salience and temporal distance manipulations. Error bars represent 95% intervals around the means

fairness-salience prime, $F[1, 188] = 1.70$, $p = 0.194$, $\eta^2 = 0.009$. However, we did find a significant interaction effect, $F[1, 188] = 6.46$, $p = 0.012$, $\eta^2 = 0.03$ (see Fig. 2).

Probing this interaction, we found the expected effect of temporal distance among participants primed with loyalty, $b = 0.36$, $SE = 0.20$, $t(188) = 1.79$, $p = 0.038$. Whistleblowing behavior was significantly higher in the far condition, $M = 5.09$, $SD = 1.65$ than in the close condition, $M = 4.44$, $SD = 2.04$. We also found a significant simple effect of distance of almost equal size among participants primed with fairness, $b = -0.36$, $SE = 0.20$, $t(188) = -1.81$, $p = 0.038$. These participants were more likely to blow the whistle in the close condition, $M = 5.41$, $SD = 1.33$, than in the far condition, $M = 4.76$, $SD = 1.92$. Considering the interaction from the alternative vantage point, we found a significant difference between participants primed with loyalty and those primed with fairness in the close condition, $b = -0.54$, $SE = 0.20$, $t(188) = -2.71$, $p = 0.007$ but not in the far condition, $b = 0.19$, $SE = 0.20$, $t(188) = 0.91$, $p = 0.367$.

Discussion

As expected, participants for whom loyalty was salient were more willing to blow the whistle on a fellow worker when the transgression was temporally far (vs. near). In light of prior evidence that temporal distance (vs. closeness) is associated with higher levels of construal (Meyer et al., 2019), the results of Study 2 provide converging, if perhaps slightly indirect, evidence for our hypothesis that construal level drives whistleblowing behavior when loyalty is salient.

Unexpectedly, we also found that participants primed with fairness were significantly more likely to blow the whistle when the transgression was temporally close (vs. far). We hesitate to read too much into non-hypothesized effects (Lakens & Etz, 2017). However, note that we also find a downward slope, albeit nonsignificant, for participants primed with fairness in Study 1. It may therefore be that engaging cognitive abstraction slightly reduces the willingness to blow the whistle among those motivated by fairness. This effect may have been strengthened in Study 2 due to our use of temporal distance, which can influence the intensity of emotions (Van Boven et al., 2010). We discuss these interesting possibilities more in the general discussion as they warrant more research. In Study 3, we return to measuring cognitive abstraction directly (as in Study 1) to avoid introducing other variables which can occur when manipulating abstraction indirectly.

Study 3

As outlined in the theory section, the logic underlying our primary hypothesis—that construal level determines whistleblowing behavior among people for whom loyalty is salient—rests on a psychological process. We propose that higher (vs. lower) levels of construal make loyal people feel more concerned with the interests of more inclusive, global (vs. exclusive, local) entities. We designed Study 3 to provide initial evidence for this proposition.

Specifically, we measured people's identification with all humanity (McFarland et al., 2012) in addition to our focal variables to examine its mediating role. We focused on identification with all humanity because it is the most inclusive collective and most mature form of social interest compared to identification with more local ingroups such one's community and nation. Moreover, we opted to use a fully correlational design, while recognizing this approach precludes us from drawing any conclusions about the causal connections between our variables (Antonakis et al., 2010, 2014; Fiedler et al., 2018). We opted for this design because alternative designs that enable researchers to test the causal role of a mechanism (such as experimental causal chain and process-of-moderation designs; see Spencer et al., 2015), require manipulation of the mechanism. We were not aware of any consistently effective manipulation of identification with humanity. Given our correlational design, we hypothesized a moderated mediation effect:

Hypothesis 2: Construal level increases whistleblowing behavior via increased identification with all humanity, among participants for whom loyalty motivation is more (vs. less) salient.

Method

Participants. To appropriately test Hypothesis 2, we set out to estimate a moderated mediation model. Sensitivity and power analyses for such models are far from straightforward (Aberson et al., 2022). As recommended by Giner-Sorolla et al. (2019), we used the method suggested by Schoemann and colleagues (2017), which is based on Monte Carlo simulations of the parameter estimates of the a- and b-paths in a mediation model and simulated data, to estimate required sample size for a simple mediation model. We estimated correlations between independent, dependent, and mediator variables to be around $r \sim 0.40$. Under these conditions, we needed about 105 participants to reach $B = 0.80$ power. Because we expected that loyalty endorsement would attenuate this indirect effect, we decided to deliberately oversample: We ended up recruiting 375 participants on Prolific Academic (Palan & Schitter, 2018), 20 of whom failed to complete the study, resulting in $N = 355$, $M_{age} = 27.90$, $SD = 9.46$. Gender identity was 203 male (57%), 148 female (41.6%), and 5 other gender or did not want to disclose (1.4%). The power to detect a simple indirect effect under these circumstances was $B > 0.99$. It is unclear how this translates into the power to detect a moderated indirect effect (Aberson, 2011), yet it is likely adequate.

Procedure. We measured the predictors and mediator (see Measures). Then, participants read two vignettes describing different whistleblower's dilemmas: (1) a political aid having to decide whether or not to reveal damaging information about a politician to the rest of the party, and (2) a researcher deciding whether or not to expose questionable research practices of other members of their lab.[1] We next asked participants to evaluate the acceptability of blowing the whistle in these cases, as well as the acceptability of failing to blow the whistle. See the Supplements for the vignettes.

Measures

Cognitive abstraction. We measured dispositional cognitive abstraction as in Study 1, using Reyt and Wiesenfeld's (2015) Work-Based Construal Level scale.

Loyalty valuation. We adapted Aquino and Reed's (2002) moral identity scale to measure participants' valuation of loyalty. Originally, this scale has was developed to measure the valuation of morality as a motive that defines people's self-concept (i.e., moral identity; Bandura, 1991). The original scale consists of a number of moral traits (e.g., "generous") that people are asked to contemplate; respondents

[1] We report the results for two additional exploratory vignettes describing non-whistleblowing loyalty conflicts in the Supplementary Materials.

are then asked to indicate how important they think it is to have these traits (i.e., internalization) and how important they think it is to model them for others (i.e., symbolization). We used the internalization items (e.g., "It would make me feel good to be a person who has these characteristics", 1 = "strongly disagree", 5 = "strongly agree") from the moral identity scale but replaced the traits with those commonly associated with loyalty (e.g., "truehearted"). See the Supplements for the scale items.

Mediator: Identification With All Humanity. We administered McFarland and colleagues' (2012) 9-item Identification With All Humanity Scale. As an example item, participants are asked: "Sometimes people think of those who are not a part of their immediate family as 'family.' To what degree do you think of the following groups of people as 'family?'" (1 = not at all; 5 = very much). Participants then rate the degree to which they identify with three groups of varying degree of inclusiveness: "my community," "my country," and "all humanity." Following McFarland et al. (2012), items pertaining to each collective were averaged into three reliable subscales, respectively. In our mediation analyses (below), we use identification with all humanity subscale, as it best reflects people's tendency to identify with inclusive collectives.

Dependent variable: Whistleblowing responses. We measured participants' evaluations of the acceptability of whistleblowing by administering four items, two per vignette. After reading either vignette, participants responded to two items: One that asked them to rate the acceptability of whistleblowing in the situation, and another the acceptability of failing to blow the whistle (1 = "totally unacceptable, the wrong thing to do"; 7 = "totally acceptable, the right thing to do"). We reversed coded responses to the latter two questions, so that scores reflected the perceived normativity of whistleblowing behavior and created a composite score by averaging the four items.

Means, standard deviations, and correlations among study variables are reported in Table 1.

Results

Effect of cognitive abstraction on Identification With All Humanity. Three separate OLS-regression models revealed (a) significant effects of cognitive

Table 1 Means, standard deviations, reliabilities, and correlations for key variables in Study 3

	M (SD)	1	2	3	4
1) Evaluations of whistleblowing behavior	4.80 (1.31)	0.64			
2) Loyalty valuation	4.01 (0.73)	0.09 (0.099)	0.87		
3) Identification with all humanity	2.86 (0.79)	0.06 (0.297)	0.33 (< 0.001)	0.90	
4) Cognitive abstraction	3.46 (0.79)	0.04 (0.448)	0.09 (0.095)	0.15 (0.004)	0.72

Numbers in parentheses to the right of the correlations are *p*-values. Reliabilities (Cronbach's α) are shown on the diagonal

abstraction on identification with all humanity, β = 0.14, *SE* = 0.05, *t*(349) = 2.70, *p* = 0.007, (b) marginally significant effect on identification with one's country, β = 0.11, *SE* = 0.05, *t*(349) = 1.96, *p* = 0.051, and (c) nonsignificant effect on identification with one's community, β = 0.05, *SE* = 0.06, *t*(349) = 0.95, *p* = 0.342. Overall, these analyses support our conjecture that cognitive abstraction is associated with identification with more inclusive collectives.

Moderated mediation analysis. We estimated a moderated mediation model in which cognitive abstraction indirectly predicts acceptability of whistleblowing behavior, via identification with all humanity, and as a function of loyalty valuation using PROCESS for SPSS (Hayes, 2017). Specifically, we estimated Model 14 in which loyalty valuation moderates the link between the mediator and the dependent variable (see Table 2). As predicted, we found a significant indirect effect among participants who scored higher (+1 *SD*) on loyalty valuation, but no significant indirect effect for people that scored lower (-1 *SD*) on loyalty valuation, *pairwise contrast* = 0.05, *BootSE* = 0.03, 95%CI[0.01, 0.12]. These results are compatible with our prediction that identification with all humanity accounts for significant variance in the effect of cognitive abstraction on whistleblowing, as a function of loyalty valuation.

Discussion

Study 3 adds to Studies 1 and 2 in two important ways. First and most importantly, we provide support for our theorizing that cognitive abstraction has its effect on whistleblowing because it increases people's identification with more global collectives, such as all humanity. Second, we replicated the results of Studies 1 and 2 with a different dependent variable. Participants reported the acceptability of blowing the whistle within ecologically valid dilemmas, thereby demonstrating the generalizability of the primary interaction effect across multiple operationalizations (Cook & Campbell, 1979).

Table 2 Moderated mediation in Study 3

β	*SE*	*t*	*df*	*p*	*95%CI*
Model 1. DV: identification with all humanity					$R^2 = 0.02$
Cognitive abstraction	0.14	0.05	2.70	350	0.007	[0.04, 0.25]
Model 2. DV: moral evaluations of whistleblowing behavior					$R^2 = 0.02$
Identification with all humanity	0.03	0.06	0.52	350	0.601	[−0.08, 0.13]
Loyalty valuation	0.13	0.06	2.24	350	0.026	[0.02, 0.24]
Loyalty × identification	0.16	0.05	3.37	350	< 0.001	[0.07, 0.25]
Cognitive abstraction	0.03	0.05	0.52	350	0.601	[−0.08, 0.13]
Conditional indirect effects						
At − 1 SD on loyalty valuation	−0.02	0.02				[−05, 0.002]
At + 1 *SD* on loyalty valuation	0.03	0.02				[0.002, 0.07]

General Discussion

Three studies show that, as predicted, construal level drives whistleblowing behavior when loyalty is salient, as compared to when fairness is salient (Studies 1–2) or when loyalty is less salient (Study 3). Notably, in each study we used different operationalizations of our key concepts. To capture variations in cognitive abstraction, we measured people's dispositional inclination toward abstract thought in Studies 1 and 3 and manipulated temporal distance in Study 2. Additionally, we found the effect on whistleblowing behavior for different kind of whistleblower's dilemmas across our three studies. The findings in Study 3 are also compatible with our theorizing that the effect of construal level on whistleblowing is explained by the fact that people who are more inclined toward abstract thinking feel more aligned with the interest of more global entities.

Theoretical Contributions

Our results first and foremost contribute to the literature on how people deal with whistleblower's dilemmas (Mesmer-Magnus & Viswesvaran, 2005; Trongmateerut & Sweeney, 2013; Waytz et al., 2013). Within the literature on whistleblowing, it is often assumed that the moral ambiguity of whistleblowing stems from a tension between *two different types ethics*—an ethic of loyalty, which demands faithfulness to a collective, and an ethic of fairness, which demands telling the truth (Dungan et al., 2015). Our research, however, highlights another source of moral ambiguity. A whistleblower's dilemma is often additionally experienced as a *conflict of loyalties*—between a sense of loyalty to an entity that is relatively concrete and local (e.g., a colleague, one's company) and loyalty to an entity that is much more global, and therefore abstract (e.g., the world, one's country). In situations in which people experience loyalty conflicts, they tend to act in accordance with the interests of the target that is most salient or important to them (Berry et al., 2021), which has been theorized to be indicative of whistleblowing contexts in particular (Anvari et al., 2019). Hence, to understand why and when people decide to blow the whistle, it is not only important to understand the type of moral value (i.e., loyalty or fairness) that is salient to them, but also the nature of the target (i.e., a relatively global or local target) that is made salient by their construal of the dilemma.

More generally, our results also speak to an ongoing and important debate in the literature regarding how construal level affects people's moral behaviors and evaluations. Some studies appear to show that morality has a stronger influence on moral judgments when people engage in abstraction (vs. concreteness; Eyal & Liberman, 2012; Eyal et al., 2008, 2009). However, other studies have failed to find support for this, or even found the opposite effect (Gong et al., 2014a, 2014b; Žeželj & Jokić, 2014). An underlying assumption of each of the cited studies is that effect of construal level should be unidirectional (i.e., abstraction is thought to make people more or less concerned with morality). However, that assumption of unidirectionality does not fit well with Moral Foundations Theory, or other such theories, which suggest that the moral domain is, in fact, not unified (Graham et al.,

2013, 2015; Janoff-Bulman & Carnes, 2018; Rai & Fiske, 2011, 2012). As such, the effects of cognitive abstraction on moral evaluations and behavior are more likely to depend on the type of moral foundation that is salient to a person. Our results provide support for this latter proposition, at least in the case of whistleblowing. We find that construal level affects whistleblowing behavior (Studies 1–2) and acceptability of whistleblowing mostly when the moral foundation of loyalty (vs. fairness) is salient. Hence, speculatively, one reason for the inconsistency in results in the literature may be that scholars did not account for the type of moral foundation that was salient for study participants (e.g., loyalty, fairness, or another foundation). More generally, our work adds to construal level research, which has primarily examined the effects of abstraction on cognitive variables (Adler et al., 2021, by demonstrating its effects on a behavioral outcome.

Last, with these results, we also address a theoretical puzzle related to loyalty (Berry et al., 2021). Organizational researchers have often studied the behavioral effects of loyalty from a non-moral, relatively instrumental, angle (Adler & Adler, 1988; Redman & Snape, 2005; Reichheld, 1993). These researchers often emphasize how loyalty is crucial for well-functioning social collectives, specifically organizations, a perspective that is in line with theorizing within coalitional psychology (Caporael & Baron, 1997; Pietraszewski, 2016). In contrast, moral philosophers and especially psychologists have typically focused on the effects of loyalty on non-normative behaviors such as cheating (Hildreth et al., 2016) and corruption (Dungan et al., 2014) that may actually undermine social cooperation in larger-scale collectives, such as organizations. Our framework explains why loyalty can have both such effects, depending on cognitive abstraction. We have shown that under conditions of cognitive concreteness, loyalty may inspire people to behave in favor of relatively concrete, exclusive, entities—resulting in their failure to blow the whistle when a colleague behaves unethically, for example. Yet, people for whom loyalty is a salient concern were found to behave in ways that favor more global interests—by blowing the whistle—when engaging in cognitive abstraction. As such, when trying to predict effects of loyalty, researchers need to consider whether circumstances facilitate engaging in cognitive abstraction or concreteness.

Limitations and Future Research

Of course, our set of studies display certain limitations that provide an impetus for further research. First, in Study 2 we unexpectedly found a significant simple effect of distance in the fairness condition, indicating that our participants primed with fairness were more likely to blow the whistle when the transgression was temporally close (recent) vs. distant (in the past). As explained earlier, we are cautious to interpret a non-hypothesized finding, but we do note that we also find a (non-significant) downward slope for participants primed with fairness in Study 1. Combined, these two effects may indicate that cognitive abstraction somewhat undermines the willingness of those motivated by fairness to blow the whistle. One possible explanation may be low level construal participants (i.e. those scoring relatively low on the scale in Study 1, and those the close condition in Study 2)

experienced more intense emotions when confronted with another person's misbehavior compared to high level construal people (Van Boven et al., 2010; Williams et al., 2014). In line with this idea, prior evidence suggests that affective states that are experienced more (vs. less) intensely can prompt action inspired by fairness principles (Van Winden, 2007). Thus, one direction for future research may be to investigate the possible intriguing relations between abstraction, emotional intensity, and fairness motivation.

That said, another intriguing possibility, raised by a perceptive reviewer, is that these results show that target salience may affect justice-motivated behavior at least to some extent like it does loyalty-motivated behavior. It may be that more localized forms of justice (e.g., organizational justice, team justice) are more motivating of whistleblowing than global form of justice—potentially because the transgressions in our studies are more relevant locally (e.g., to MTurk workers) than globally. Scholars have indeed theorized about how distance may relate to fairness enactment (Rizvi & Bobocel, 2015).

Second, Study 3 provides initial correlational evidence compatible with our theorizing that cognitive abstraction has the predicted effects on whistleblowing because it facilitates recognition of loyalties to global entities (such as humanity as a whole). Although past theorizing has suggested that whistleblowing decisions rest upon the salient target of loyalty (Anvari et al., 2019), our Study 3 provides direct evidence that one's identification (i.e., with humanity as the superordinate identity) helps to explain why cognitive abstraction shapes whistleblowing behavior, and that (superordinate) group identification is linked to one's level of cognitive abstraction. However, our Study 3 research design precludes us from drawing causal inferences (Fiedler et al., 2018), so naturally we are cautious in our interpretation of these results. Future research is necessary to further verify the causal role of identification with global entities vis-à-vis the effect of cognitive abstraction on whistleblowing.

Third, our research seeks to examine how abstraction affects whistleblowing judgments, but our investigation was limited to the whistleblowing scenarios used in the research. Specifically, we focused on individual whistleblowing decisions following discrete violations, as tested and defined by Waytz et al. (2013): "reporting another person's unethical behavior to a third party" (p. 1027). However, whistleblowing decisions can also be understood as a response to conspiratorial wrongdoing (or culture of wrongdoing) within an entire group, where the group is collectively responsible and collectively accountable for the violation. Both are potentially relevant, and our theoretical arguments should apply to both contexts; however, our empirical investigation is nonetheless limited to whistleblowing against individual offenders within the organization. Therefore, further research would be necessary to confirm similar response patterns when posed with groups of offenders within an organization. A similar point can be raised for situations in which a whistleblower blows the whistle on behalf of a smaller group embedded within a larger collective to which they belong (e.g., a male whistleblower reporting on the mistreatment of women in their company). It seems intuitively likely that in such cases, whistleblowing is more likely to be driven by non-loyalty concerns (e.g., fairness). However, as far as such situations are experienced as loyalty conflicts, we would argue that our reasoning applies. Again, future research would be needed.

Finally, in real-world situations, whistleblowers need to take more initiative and they face high levels of personal risk in doing so, features that are difficult to simulate in the laboratory. Using the experimental paradigm developed by Waytz et al. (2013) allowed us to study the loyalty-conflict aspect of whistleblowing behavior in a controlled manner as was our goal, but we recognize these limitations require future research to address.

Despite these limits in empirical scope, our theoretical reasoning would nonetheless predict a reversal of the current effect under certain conditions. Specifically, in situations where whistleblowing is in the interest of a smaller group, but against the interest of a larger, more inclusive, collective (and a potential whistleblower feels a sense of loyalty to both), low, but not high, construal should predict whistleblowing behavior. For example, this may be true for the case of conspiratorial wrongdoing in which the whole group is implicated, and a third party is blowing the whistle on behalf of a smaller group to which they do not belong (but feel loyal to). It should be noted however that, in practice, whistleblowing typically involves reporting misbehavior to a neutral regulator and/or the public at large. In both cases, but especially the latter, this points to the fact that even if whistleblowing only benefits a relatively small minority, on a more symbolic level it may still benefit the broader community (e.g., a whistleblower revealing the mistreatment of women in a particular company may also benefit women not employed at that company by shining a light at structural sexism in today's business culture). Hence, how loyalty is implicated in whistleblowing will in each of these cases depend on at what level the conflict of loyalties is construed (e.g., as a conflict between a smaller sub-group and a larger group vs. a conflict between the larger group and society as a whole).

Last, we restricted our analysis in this article to comparing fairness- vs. loyalty-based moral motivations (Studies 1 and 2). We did this because we suggested that whistleblower's dilemmas can be experienced as conflicts of loyalties, as well as conflicts between loyalty- and fairness-based motives. Of course, this does not rule out the potential for other moral foundations to also play a role. For example, parents who suspect their children of illegal behavior may believe that they owe a duty of care vis-à-vis their children that precludes reporting; but at the same time, they may feel they owe a duty of obedience to the state that would prescribe the reporting of suspected crimes. Within Moral Foundations Theory (Graham et al., 2013, 2018) these two motives are associated with different moral foundations, namely harm avoidance and respect for authority, respectively. As such, it would be interesting to study the effect of cognitive abstraction on whistleblowing in cases where different motives push one to align themselves with the different entities in question (e.g., a duty of care to a perpetrator vs. a duty of obedience to the state).

Practical Implications

Encouraging whistleblowing within the workplace is an effective tool to safeguard ethicality of the organization (Near & Miceli, 1995). That is, organizations that encourage workers to step forward whenever they know or suspect misbehavior are likely to be in a better position to rapidly detect unethical behavior in their

ranks and to take swift action to stop it (Watkins & Bazerman, 2003). Our results show that there are at least two ways to encourage effective whistleblowing. First, organizations may choose to emphasize values and norms relating to the moral foundation of fairness in their communication to employees, in the hope to make this foundation salient, thus motivating people to blow the whistle. In line with Waytz and colleagues (2013), we show that at least some people—i.e., those construing the dilemma at lower levels—are more likely to blow the whistle when fairness is a salient norm.

However, organizations may also or additionally want to emphasize the importance of loyalty, for instance to encourage organizational commitment among workers (Bergman, 2006). Still, there is a risk here: by making loyalty values and norms salient, this could undermine whistleblowing (Dungan et al., 2015). Our research shows this risk may be mitigated by also encouraging workers to construe whistleblower dilemmas at higher levels. Cognitive abstraction, or construal level, is both a trait and a state (Burgoon et al., 2013). Hence, one way to encourage high-level construal of whistleblower's dilemmas is to select and recruit workers who are chronically inclined to construe events at higher levels, albeit this approach may be relatively less feasible. Additionally, however, high-level construal may be situationally engendered. Our Study 2 offers a case in point in that it shows that temporal distance from a transgression encourages potential whistleblowers for whom loyalty is salient. While organizations cannot alter objective temporal distance, prior construal level research and theory suggests that there are other situational factors that can similarly elicit abstract construal such as physically removing oneself from the situation (Fujita et al., 2006), or promoting more abstract "why" questions (vs. concrete "how" questions) when communicating the importance of organizational ethics (Venus et al., 2018). Thus, the moral implications of not blowing the whistle may be more evident to workers when the organization affords them opportunities to distance themselves from the situation at hand.

Conclusion

People may often experience conflicting loyalties at work and in the rest of their lives—of which whistleblower's dilemmas may be the most poignant examples. Our results indicate that, when loyalty is salient, the way people construe such conflicts determines how they resolve them. Taken together, the current studies offer a novel conceptualization of whistleblowing behavior—that is, as a conflict between loyalties—and identifies a cognitive mechanism (abstraction) for promoting whistleblowing and reducing unethical behavior. As such, our work helps to elaborate how organizations might better manage the tensions between conflicting loyalties and reveals the relevance of contextual factors in promoting more balanced moral decision making among its employees.

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Declarations

Conflict of interest The authors declare that they have no conflicts of interest. 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. Informed consent was obtained from all individual participants involved in the study.

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