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Authors

Shivnekar, Revati

Bystranowski, Piotr

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A cognitive account of how institutional pressures influence rule enforcement decisions

Revati Shivnekar (revati.shivnekar@uj.edu.pl)¹ & Piotr Bystranowski¹

¹Interdisciplinary Centre for Ethics, Jagiellonian University, Kraków

Abstract

Violating regulations often prompts a punitive reaction from enforcement authorities, but not always. We examine three potential contributors to how enforcement officers might make such choices: epistemic expectations (whether the violator should have known about the regulation), mentalistic inference (whether the violator acted in bad faith), and institutional pressures (top-down directives to enforce the regulation). The first two of these factors have attracted considerable attention through research on norms and causation; however, how role-based demands on enforcers shape their enforcement decisions remains under-explored. To bridge this gap, we conducted two experiments examining how institutional pressures interact with epistemic expectations and mentalistic inference. Manipulating perceived legality, prevalence, and enforcement demands, we find that institutional pressures increase enforcement but do not distort judgments about violators' knowledge or intentions. We thus identify institutional pressure as a separable source of enforcement motivation: it shapes regulatory decisions without contaminating the underlying moral evaluations of non-compliance.

Keywords: norm violation; rule enforcement; institutional stance; mentalistic inference;

Introduction

“Hi, officer! Is there a problem?” is a familiar cliché when one tries to act casual with law enforcement after getting (or thinking they might be) in trouble for breaking the law. A remark like this is often a way of testing the waters to figure out whether the officer is likely to write you a ticket. It also highlights an important characteristic of how regulatory systems operate in practice: regulations are often left to implement with enforcers who may differ in how strictly they enforce them. Reasons for enforcing regulations may range from whether the enforcer thinks the violation warrants leniency to whether she is under institutional pressure to enforce it. Consider, for example, a parking officer who usually ignores violations in a quiet neighborhood. When his area is marked for active monitoring, the officer complies, perhaps not out of personal conviction, but because the job now requires it.

In this paper, we empirically investigate how different factors shape enforcement decision to escalate or exculpate a violation and whether enforcement pressures in turn influence enforcers' perceptions of the violator's epistemic and mentalistic states.

Motivations behind enforcing regulations

What determines whether a legal violation would occasion an enforcement action? Below, we draw from the broader literature on norms, their violations, and judgments about them to motivate how these regulatory decisions—whether to escalate a violation and seek desert or to exculpate it—are made.

Epistemic expectations

A central concern for regulatory decisions is whether the actor knew or was expected to know about the violated rule in the first place. While legal rules may bind all citizens, the sheer volume and complexity of regulations leaves open the possibility that the violator was genuinely unaware or mistaken about the regulation. In such cases, enforcers may excuse the violation. On the flip side, if the agent is *expected to know* about the regulation—because it is routine or heavily notified—then this raised epistemic expectation may preclude exculpation.

In line with this intuition, recent research shows that a range of judgments about norm violations are moderated by epistemic expectations about norms. Actors who unknowingly break a norm receive milder normative judgments regarding wrongness and deserved punishment. However, this leniency only extends so far. Bystranowski (2024) demonstrates that for norms perceived as widely publicized, ignorance confers less exculpation. A similar pattern emerges for going against routinely followed behavior. Kirfel and Lagnado (2021) show that whether the actor was expected to know a norm they end up violating influences causal ascriptions. People also tend to infer that actors know more when they had a chance to inform themselves about the norm but chose not to (Aboody et al., 2021). Together, these findings suggest that how observers judge violations of legal norms is likely to be influenced by whether they infer the actor to know or anticipate her to know the regulation (see the green box in Figure 1).

Mentalistic inferences

Another source of variation in enforcement judgments could stem from the mental states enforcers attribute to the non-compliant actor. While unobserved, we make inferences about mental states from the observable parts of the act (Schaafsma et al., 2015). These mental states (whether reported by the actor or inferred by observers) have long been argued to play a

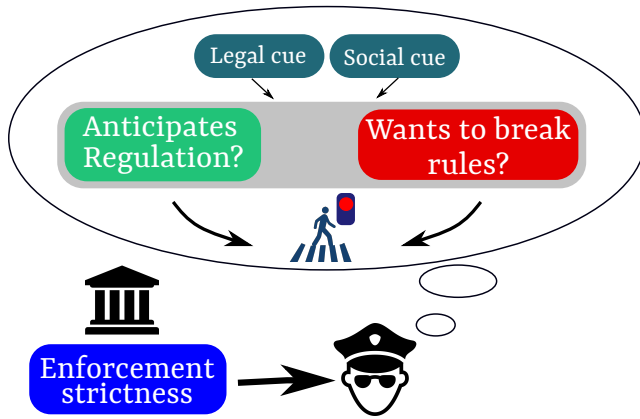


Figure 1: Three motivations to enforce a regulation.

central role in moral judgment. In legal doctrine, they find import too. For instance, intentional killing is classified as murder and typically sanctioned more harshly than manslaughter, which involves accidental or unintentional killing.

Inferring mental states such as an intention to cause harm or disregard rules is critical for predicting future behavior. Norms establish baseline expectations, and deviations from them create interpretive demands. To explain why the violation occurred, observers often attribute plausible mental states such as including intentions, desires etc. to the non-compliant actor (Brandstätter et al., 2001; Kirfel & Lagnado, 2021; Uttich & Lombrozo, 2010). Such inferences also signal suitability for cooperation, helping individuals predict future behavior and adjust their strategies accordingly (Balliet & Van Lange, 2013; De Melo et al., 2014; Delgado et al., 2005). Similarly, in enforcement contexts, inferences about whether the non-compliant actor acted in bad faith could help enforcers anticipate if the actor is likely to offend again. Accordingly, mental-state inferences may constitute an important mechanism shaping enforcement decisions (see the red box in Figure 1).

Epistemic expectations and mental state inferences are closely tied to features of the norm in question. A commonplace or heavily notified regulation may not be excused, but enforcers may overlook frequently violated or obscure regulations (Wylie & Gantman, 2023; Wylie et al., 2026). For the present study, we consider two sources that characterize features of legal norms: *legal cues*, such as official communications or signage indicating that an action is regulated; and *social cues*, where low prevalence of an action suggests it may go against descriptive norms. We take both cues to contribute independently to judgments about whether an action is regulated—the former through official channels, the latter through observable patterns of behavior in the community (see for similar approaches, Gross et al., 2025, Wylie & Gantman, 2023).

Institutional pressures

While enforcers may incorporate rule-features into their exculpatory decision, enforcers must also juggle the demands of their roles as implementers of regulations. Like in the example introduced earlier, a traffic officer in a quiet neighborhood might begin writing parking tickets when there is pressure to enforce regulations more strictly. Such a change in enforcement policy, handed down from higher-ups, can influence decisions about exculpation where the enforcer may previously have been lenient or overly strict.

The separation of those who set enforcement priorities from those who carry them out may lead enforcers to receive less blame when they are understood not to be involved in the decision-making process itself (Gantman et al., 2020). This diffusion of responsibility can make enforcers more inclined to act strictly in accordance with institutional demands, attributing their actions to directives from above rather than to their own judgment. Under such role-based pressures, enforcers may implement a rule without considering whether the actor fulfills the epistemic expectation or acts in bad faith (we return to this point later but see, Jara-Ettinger & Dunham, 2024).

In short, while epistemic expectations and mentalistic inferences are shaped by how the enforcer interprets the non-compliant actor's actions and intentions, institutional pressures direct how the enforcer herself is expected to act. These pressures may therefore override decisions about exculpation without requiring any reference to the actor's knowledge or intentions. However, the question remains whether such role-based expectations inadvertently give rise to inferences about whether the actor should have anticipated the regulation or appears to have acted in bad faith. This is precisely what we investigate empirically.

Overview of experiments

Our aim was to test how institutional pressures influence regulatory decisions and the attribution of specific mental states to non-compliant actors. To avoid participants' preconceptions about real-world rules, we created an alternate-world paradigm involving unfamiliar regulations. In this world, aliens had made contact with humans and were attempting to integrate into society. Because they were unfamiliar with social and legal norms, local authorities had provided these beings with an Action Information Device. Aliens could enter any action they wished to perform, and the device would display the likelihood that the action was legal (legal cue) as well as how many people engaged in it (social cue). However, the device was sometimes inaccurate, meaning aliens could unknowingly violate regulations despite receiving misleading information.

Participants acted as case officers reviewing these violations. Each case file showed what the device had displayed to the alien (i.e., the legal and social cues) and, in some conditions, that the department wanted the regulation enforced strictly. For each case (see Figure 2), participants

SUBJECT NAME
Plexara Vornik

VIOLATION
Caught ZYMLING

CASE PRIORITY
HIGH
Department advises stricter handling of such cases

Action Information Device
Information displayed about zymling

Legal Status: How likely is zymling legal? **83%**

Social Prevalence: How many people do this? **78%**

Officer Assessment

STEP 1 OF 2
Should this case be escalated for further scrutiny?

Escalate for Scrutiny
Send for on-site investigation

Do Not Escalate
Send a postal warning

STEP 2 OF 2
Should Plexara have expected zymling was prohibited?
This rating is for internal research purposes only.

1 2 3 4 5 6 7
Not at all Very much so

Figure 2: A representative case report from a trial set to high enforcement strictness.

decided whether to escalate it for further scrutiny (with non-escalation signifying exculpation) and provided a subjective rating: should the alien have anticipated the prohibition (Experiment 1) or how much, they think, the alien acted in bad faith (Experiment 2).

Behind the scenes, we manipulated the legal and social cues to show either high or low likelihoods. Because the device was described as sometimes inaccurate, we could present violations where the cues correctly signaled prohibition (with the legal cue indicating low likelihood of legality and the social cue showing few people engaging in it) or where the cues were misleading, with cues suggesting that the action was legal and prevalent. The cues could also conflict: the legal cue might suggest an action was likely illegal while the social cue showed most people engaging in it (such as phantom rules described by Wylie & Gantman, 2023), or vice versa. This allowed us to investigate whether enforcers were sensitive to what the alien knew when acting, or whether they applied the regulation uniformly regardless of the information available.

Crucially, this design separated two factors: enforcers' judgments about the violation based on the cues, and external pressure to enforce strictly. If enforcers keep these separate, stricter enforcement pressure should influence escalation decisions but leave judgments about the violator's knowledge and intentions unaffected. However, if enforcement pressure shapes how enforcers perceive the violation itself, then cases flagged for strict enforcement should produce harsher outcomes across all measures: more escalations, higher epistemic expectations that the actor should have known better, and stronger perceptions of bad faith.

Experiment 1

Experiment 1 examined how institutional pressure, together with the legal and social cues aliens saw before breaking

the law, shaped their decisions to escalate. Critically, we tested whether such pressure also retrospectively modulates participants' normative epistemic expectations viz., whether the violator should have known about the regulation.

Participants

100 participants from the U.S. were recruited for this experiment via prolific. Out of these, 77 (35 females, 39 males, 3 unspecified; M_{age} [SD] = 35.9 [11.5]) correctly answered all the attention and comprehension checks and their data were analyzed. Sample size, hypotheses, and analyses were preregistered (tinyurl.com/cssenfo1).

Materials

The experiment employed a fully within-subjects 2 (legal cue) $\times$ 2 (social cue) $\times$ 2 (enforcement strictness) design. Each case file presented information about an alien who had violated a regulation, including the alien's name and caricature photo, the violation (a fictitious prohibited action), cue information, and the enforcement strictness level for the current violation (see a representative case file for 'High' enforcement strictness in Figure 2).

The Action Information Device presented legal and social cues in percentages. The legal cue indicated the likelihood that the action was legal, while the social cue indicated the proportion of the population that engaged in the action. Each cue was randomly sampled from either a low (5–27.5%) or high (72.5–95%) interval, yielding a 2 $\times$ 2 factorial design. For each participant, 8 trials comprising all four cue combinations with each appearing twice was generated.

Presentation of enforcement strictness was blocked. In the first block, participants completed eight trials (and one attention check) for which no information about enforcement strictness was provided. After these trials, participants were

informed that the department wanted stricter handling of the subsequent nine trials (eight experimental, one attention check). More importantly, participants were told that these violations were all petty violations like the ones they saw before, and were not any more violent. Participants then evaluated the same eight cue combinations under the high enforcement strictness condition, ensuring that cue information was fully crossed with the enforcement manipulation.

For each case file, participants answered two questions in fixed order:

Escalation decision: “Should this case be escalated for further scrutiny?” Response options were ‘*Escalate for scrutiny*’ (with subtext: ‘send for on-site investigation’) or ‘*Do not escalate*’ (with subtext: ‘send a postal warning’).

Epistemic expectation: “Should [the alien] have expected [the action] was prohibited?” Responses were provided on a 7-point scale (1 = *Not at all*; 7 = *Very much so*, with subtext: ‘This rating is for internal research purposes only.’)

Participants were excluded if they failed attention or comprehension checks.

Procedure

Participants received comprehensive instructions covering the experimental premise, their task, interpretation of the Action Information Device, and the enforcement strictness manipulation. The interface was designed with familiar features for intuitive navigation. Before starting the actual experiment, participants viewed an annotated walkthrough of a sample case file. Since the instructions presented to the participants are crucial but extensive to mention here, an anonymized demo of the experiment can be accessed here: <https://tinyurl.com/enforce-anon>.

Results and discussion

Participants evaluated each cue combination twice: once at baseline (no enforcement information) and once under high enforcement strictness. Following our preregistered hypothesis, we predicted that enforcement pressure would increase escalation rates but leave epistemic ratings unchanged. Below we report results for our both dependent variables.

Escalation decisions: Comparing each participant’s decisions at baseline versus high enforcement for the same cue combination, 70% of trials showed no change, 25.8% shifted toward escalation under high enforcement, and 4.2% showed the reverse pattern. We excluded the latter trials from subsequent analyses.

Overall, enforcement strictness increased escalation ($BF > 10^{18}$). A Bayesian mixed-effects logistic regression revealed that both cues and their interaction contributed to escalating the violation (legal: $\beta = -2.01$, 95% CrI [-2.31, -1.72]; social: $\beta = -1.38$, 95% CrI [-1.67, -1.09]; interaction: $\beta = 0.65$, 95%

CrI [0.10, 1.22]¹). Under high enforcement strictness, participants escalated more often ($\beta = 1.24$, 95% CrI [0.94, 1.53]). Further, the two-way interactions indicated that enforcement effects varied by cue condition (legal $\times$ enforcement: $\beta = -0.57$, 95% CrI [-1.09, -0.02]; social $\times$ enforcement: $\beta = 0.69$, 95% CrI [0.17, 1.22]). That is, enforcement pressure had a weaker effect on escalation when the action was indicated to be legal, but a stronger effect when the action was socially prevalent. Together, these effects produced the largest shift in the condition where cues signaled that the action was likely illegal but widely practiced, with 45% of trials shifting toward escalation (95% CI [.37, .53]). However, the three-way interaction among the cues and enforcement strictness was not significant, indicating that enforcement strictness increased escalation across conditions in a broadly comparable manner.

Epistemic expectations: To test whether enforcement pressure distorted judgments about violators’ knowledge, we computed the difference in epistemic ratings between high enforcement and baseline for each participant–case combination. A Bayesian mixed-effects model predicted this difference from cue levels and their interaction. Equivalence was defined a priori as effects within [-0.3, 0.3].

Across all conditions, posterior estimates fell within the equivalence bounds. Aggregating across all cue combinations provided strong evidence for the null ($BF_{01} = 4858$). Cell-specific tests showed the same pattern, with evidence in favor of equivalence (Cell-wise Bayes factors in favor of the null²: $BF_{L-S-} = 230.19$; $BF_{L-S+} = 7.57$; $BF_{L+S-} = 22.84$; $BF_{L+S+} = 95.97$. See Figure ??). Thus, while enforcement pressure increased escalation rates, it did not lead enforcers to retrospectively inflate their judgments about what the violator should have known.

Experiment 2

In Experiment 2, we examined whether institutional pressures influence participants’ inferences about whether violators were acting in bad faith.

Participants

Out of 100 participants recruited from the U.S., 83 (41 females, 40 males, 2 other; M_{age} [SD] = 36.7 [13.1]) correctly answered all the attention and comprehension checks and their data were analyzed. Sample size, hypotheses, and analyses were preregistered.

Materials and procedure

Experiment had the same setup as Experiment 1 with the epistemic expectation question replaced by perceived bad faith on part of the non-compliant alien:

¹We treat a parameter as showing an effect when its 95% credible interval (CrI) excludes zero.

²We use $L \pm S \pm$ to denote cue combinations, where L and S refer to legal and social cues, and + and - indicate high and low levels respectively.

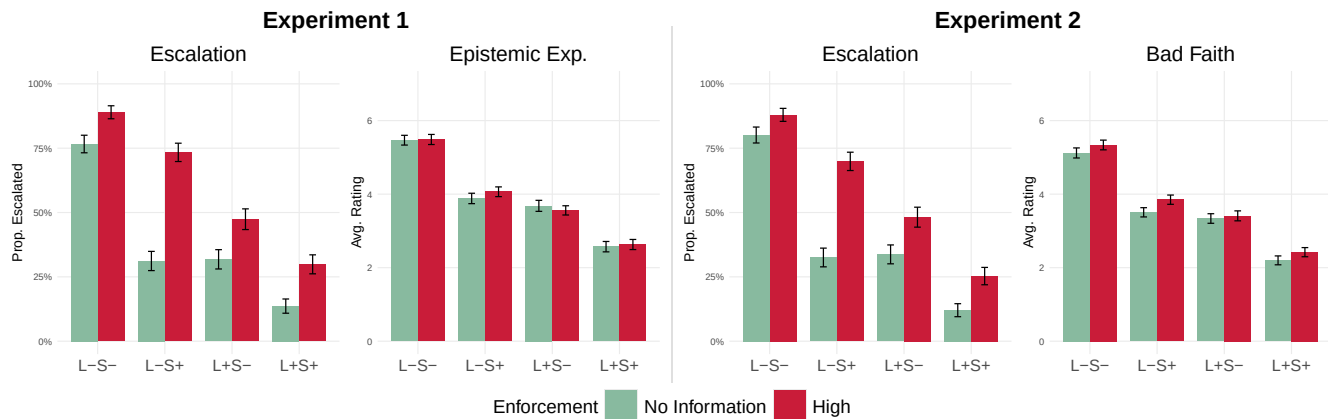


Figure 3: Average escalation decisions and epistemic expectation (Experiment 1; two plots on the left-hand side) and perceived bad faith ratings (Experiment 2; two plots on the right-hand side) plotted across conditions, with the errorbars representing 95% bootstrapped CI intervals. L = legal cue (likelihood that the action was legal); S = social cue (proportion of people who engage in the action). + indicates the device displayed a high value (72.5-95%); - indicates a low value (5-27.5%). For example, L-S+ denotes cases where the device suggested the action was likely illegal but commonly performed.

Perceived bad faith: “How much do you think [the alien] was acting in bad faith?” (1 = *Not at all*; 7 = *Very much so*) with subtext: ‘This rating is for internal research purposes only.’

All the instructions apart from those concerning the rating remained the same.

Results

We followed the same statistical analysis approach as in Experiment 1 for both escalation decisions and perceived bad faith ratings. All analyses were pre-registered (tinyurl.com/css2bf2).

Escalation decisions: Overall, matched based on cue combination under different enforcement levels, 72.1% combinations showed no change in escalation decisions under high enforcement, 23% showed an expected increase under high enforcement and 4.8% showed a shift from escalation to no escalation in high enforcement condition. The latter trials were excluded from the analysis.

The Bayesian mixed effects model also showed a pattern similar to Experiment 1 in predicting escalation decisions. Higher values on the legal cue ($\beta = -2.01$, 95% CI [-2.31, -1.71]) and social cue ($\beta = -1.38$, 95% CI [-1.67, -1.10]) reduced escalations, with their interaction also significant ($\beta = 0.64$, 95% CI [0.10, 1.22]). Enforcement strictness increased escalation decisions ($\beta = 1.24$, 95% CI [0.94, 1.53]). Just like in Experiment 1, enforcement strictness moderated social cue’s impact on escalation decisions ($\beta = 0.69$, 95% CI [0.14, 1.27]). However, in Experiment 2, legal cue did not have a significant interaction with enforcement strictness ($\beta = -0.57$, 95% CI [-1.14, 0.001]), which was already small in Experiment 1. Further, the three-way interaction was not significant ($\beta = -0.61$, 95% CI [-1.62, 0.44]). In summary, stricter en-

forcement consistently increased escalation decisions across all cue combinations.

Perceived bad faith: The overall test provided moderate evidence for the equivalence hypothesis under different enforcement pressures ($BF_{01} = 11.64$), suggesting that enforcement pressure did not systematically inflate attributions of bad faith. Cell-specific tests revealed a more nuanced pattern. Strong evidence for equivalence emerged in the L+S- condition ($BF_{01} = 33.01$), with moderate evidence in the L-S- ($BF_{01} = 3.95$) and L+S+ ($BF_{01} = 3.99$) conditions. Critically, the L-S+ condition yielded inconclusive evidence ($BF_{01} = 0.74$), leaving open the possibility that enforcement pressure may influence bad faith attributions when actions are likely illegal yet socially prevalent.

Together with Experiment 1, these findings suggest that while institutional pressures reliably increase escalation behavior, they do not substantially alter underlying morally-relevant judgments about violators’ knowledge or intentions. We discuss these results from both experiments in the next section.

General discussion

Our aim in the present studies was to test whether institutional pressures to enforce regulations retroactively shape how enforcers judge the non-compliant agent. Our findings suggest it does not. Although participants under institutional pressure escalated cases more often, their judgments about whether the actor should have anticipated the regulation (Experiment 1) and their inferences about whether the actor acted in bad faith (Experiment 2) remained anchored to the available cues rather than shifting to justify stricter behavior. This suggests that institutional pressure did not produce motivated reasoning, whereby enforcers inflate their judgments about what

violators knew or intended to rationalize harsher treatment.

Our findings speak to recent theorizing about the “institutional stance” in social cognition (Jara-Ettinger & Dunham, 2024). This framework proposes two complementary processes that help us understand social behavior. The mentalistic stance interprets behavior via unobservable mental states such as beliefs and desires, while the institutional stance interprets behavior via role-based structures that constrain and regulate behavior through rule-like normative expectations. Critically, these two stances are proposed to be separable. While the mentalistic stance helps observers infer why a non-compliant actor behaved as they did, the institutional stance may allow enforcers to respond to top-down directives without necessarily engaging in rich mental state inference about the violator. Our results support this proposal, aligning with the claim that role-based reasoning can reduce the cognitive demands of social interaction (Kaufmann & Clément, 2014), allowing enforcers to act in accordance with institutional expectations without the inferential burden of adjusting their beliefs about the violator’s mental states.

However, enforcement may not be completely free from subjective influence. Legal decisions about culpability have been argued to be at least partially influenced by personal proclivities (Alicke & Weigel, 2021). Along the same lines, Wylie et al. (2026) demonstrated that enforcement of regulations that are codified but widely ignored is susceptible to racial bias. In our Experiment 2, evidence for equivalence was inconclusive when violations involved such actions. This may reflect a similar dynamic to what Wylie and Gantman (2023) describe: when a regulation is clearly codified but widely ignored, it can serve as a tool for motivated punishment, and enforcers may be more susceptible to adjusting their mental state attributions. Future work could examine whether this represents a boundary case where individual biases more readily spill over into mentalistic judgments.

Our paradigm presented participants with violation reports of fictitious actions set in an alternate world to avoid preconceived notions about the actions. This allowed us to systematically vary the information available to the non-compliant actor about the action while independently manipulating enforcement strictness. We could also present identical cue combinations under two levels of institutional pressure within our paradigm which allowed us to compare direct influence of enforcement strictness on escalation decisions and judgments about the actor. Crucially, participants were told that violations reviewed under stricter enforcement were no different from those seen before. This ensured that any differences in responses could be attributed to institutional pressure rather than perceived severity.

However, it remains to be seen how these findings translate to real-world regulations. Outcome information, for instance, may become more pertinent when real regulations are at stake. If the violation is jaywalking, which most people engage in at some point despite knowing it to be illegal, a pertinent question would be whether this particular instance under scrutiny

caused or risked harm. Additionally, real-life violations may also give enforcers reason to *resist* institutional pressure when their subjective beliefs conflict with enforcement. In this way, the extent to which enforcers align themselves with institutional prerogatives may shape not only their observable enforcement decisions but also how they cognize the violation itself.

Nevertheless, our findings reconcile well with the existing literature on norms and their violations. Judgments about norm violations are shaped by multiple factors, including features of the norm (Bystranowski, 2024; Wylie & Gantman, 2023), the actor’s mental states (Cushman, 2008; Delgado et al., 2005), and outcomes (Alicke, 2000). Prior work shows that people remain sensitive to these factors when judging legal violations (Almeida et al., 2021; Wylie & Gantman, 2023; Wylie et al., 2026), and our experiments were no exception. Participants attended to the information the non-compliant actor had about the legality and social prevalence of the action. However, role-based expectations add another layer to ordinary moral judgments by inducing external, often top-down institutional pressures on enforcers. Our findings suggest that this layer operates independently as the decision to escalate or exculpate did not distort enforcers’ judgments about the violator. This dissociation speaks to a broader question about how humans navigate competing demands, balancing institutional roles with the social-cognitive processes that ordinarily guide moral judgment.

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