

Wrong or Merely Prohibited:
Special Treatment of Strict Liability in Intuitive Moral Judgment

Carly Giffin & Tania Lombrozo
Department of Psychology
University of California, Berkeley

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Abstract

Most crimes in America require that the defendant have “mens rea,” Latin for “guilty mind.” However, mens rea is not legally required for strict liability crimes, such as speeding or statutory rape, for which someone is guilty even if ignorant or deceived about her speed or the age of a sexual partner. In Experiment 1 (N = 384), we show that laypeople’s intuitive moral judgments reflect this legal distinction: ignorance and deception are less mitigating for strict liability crimes than for “mens rea” crimes. In Experiments 2 and 3 (N = 800), we find evidence that strict liability crimes may be treated more like violations of *convention* than like pure moral violations. First, we find that for strict liability crimes, ratings for moral censure and punishment are influenced to a greater extent by the fact that a rule was violated, even when harm is kept constant, mirroring the legal distinction of *malum prohibitum* (wrong as prohibited) versus *malum in se* (wrong in itself). Second, we find that rules prohibiting strict liability crimes are judged more arbitrary than corresponding rules for “mens rea” crimes, and that this judgment is related to the role of mental states. Jointly, the findings suggest a surprising correspondence between the law and laypeople’s intuitive judgments.

keywords: rule violation; knowledge; decision making; explanations; law

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Introduction

"The first requirement of a sound body of law," wrote Justice Oliver Wendall Holmes, "is that it should correspond with the actual feelings and demands of the community, whether right or wrong" (Holmes, 1881). The sentiment that the legal system ought to reflect the intuitions of the people continues to have popular and academic support (e.g., Alicke, 2008). To the extent this correspondence between the law and laypeople's intuitive judgments holds, the psychology of moral judgment has important implications for the law, and the law provides a rich source of information about human moral psychology (Hart & Honore, 1962; Mikhail, 2009).

One important correspondence between the law and intuitive judgments can be seen in the legal system's requirements regarding intent. Characteristically, a person cannot be found guilty of a crime in America unless that person had some intent to commit the crime or acted in a way that was negligent or reckless. Legally, this concept is referred to as "mens rea," Latin for "guilty mind," and has been a part of criminal law for centuries (Blackstone 4 Comm., 1769). Psychological research confirms that, in most cases, a person's intent is seen as a crucial variable in assigning moral responsibility and punishment (e.g., Malle & Knobe, 1997; Knobe, 2005). For instance, putting white powder in someone's coffee is judged considerably more harshly when it was done with knowledge that the white sugar was poison than when the same act was performed under the false belief that it was sugar (Young & Saxe, 2011). It thus appears that the law and human psychology agree when it comes to the important role of mental states or mens rea, even if the legal and folk concepts are not perfectly aligned (Malle & Nelson, 2003).

Notably, the law makes an exception concerning the role of mens rea for a specific class of crimes known as "strict liability" crimes. In criminal law, strict liability crimes are crimes for which the prosecution does not have to prove that the defendant had the requisite mens rea with

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respect to at least one element of a crime, and, in many cases, the defendant is not allowed to present evidence that she made a reasonable mistake¹ or lacked relevant knowledge or intent (Levenson, 1992). For instance, a person who is speeding can be found guilty without the prosecution proving that she intended to speed or knew that she was speeding, and the defendant will not be found innocent if she presents evidence that her speedometer was malfunctioning.

Why does the law set apart strict liability crimes for special treatment? A variety of justifications for the imposition of strict liability have been offered. For example, some have argued that imposing strict liability increases the incentive for the actor to use care or to consider whether the activity should be engaged in at all (Stanton-Ife, 2007; Singer, 1989; Manchester, 1977), or that strict liability appropriately apportions risk on the only person who could have benefited from the action (Keating, 2006). These positions are often tied, implicitly or explicitly, to different justifications for punishment, such as the idea that punishment should effectively *deter* the criminal behavior, rather than being imposed in *retribution* (Craswell & Calfee, 1986; Stahlkopf et al., 2010).

Another explanation for strict liability comes from the Supreme Court case of *U.S. v. Morissette*, in which Justice Jackson noted that, historically, many strict liability crimes were primarily *malum prohibitum* rather than *malum in se*. These legal terms of art mean that strict liability crimes were typically considered wrong *because* they were prohibited, whereas what we will call “mens rea crimes” are wrong or evil in themselves. A crime that is wrong merely by law, it was argued, does not require mens rea because the violation of the law, regardless of intent, is the harm to be protected against (*US v. Morissette*, 1952). While this idea was introduced over half a century ago, we will revisit its modern significance in Experiments 2 and 3.

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Theoretical justifications aside, strict liability crimes challenge the idea that a day in court should afford the defendant the opportunity to explain herself and be judged accordingly by her peers. While laws of evidence can also prevent defendants from presenting all the exculpatory information they might wish, strict liability crimes are unique in the severity of restrictions. Moreover, we know from prior research that the completeness, consistency, and plausibility of the defense's explanation for the evidence – the defense's "story" – can significantly alter mock-juror decisions (Pennington & Hastie, 1986; 1987), and that mock jurors are more likely to be influenced by information that is presented explicitly, even when that information could have been inferred (Pennington & Hastie, 1992). It therefore seems likely that jurors would treat evidence disproving *mens rea* as exculpatory, even in strict liability cases. Indeed, scholars have suggested that not requiring the prosecution to prove *mens rea* in criminal cases challenges the fundamental fairness of our justice system and puts defendants at a disadvantage (113th Congress, 2013; *US v. Morissette*, 1952; Sayre, 1933).

In the present work, we investigate whether the legal distinction between strict liability crimes and *mens rea* crimes reflects a psychological distinction as well. One possibility is that strict liability crimes represent a departure from a general correspondence between the law and intuitive judgments. Indeed, many scholars point out how *unintuitive* the imposition of strict liability can seem (e.g. 113th Congress, 2013; Stanton-Ife, J, 2007; *United States v. Morissette*, 1952). But a second possibility is that the distinction between strict liability and *mens rea* crimes reflects a psychological distinction that has not been adequately recognized within the psychological literature. In fact, based on our findings, this is what we will ultimately suggest. Our initial experiments reveal a surprising degree of correspondence between the law's special

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treatment of strict liability crimes and laypeople's intuitive moral judgments, which then leads us to consider why this is the case.

In Experiment 1, our aim is to establish whether judgments concerning strict liability crimes are – on average – influenced less by the actor's mental states (i.e., her knowledge and intent) than are mens rea crimes, thus mirroring the law. Importantly, at no point are participants told or given any indication of which crimes are strict liability, nor do they come to the experiments with this knowledge.² Their responses therefore reflect their intuitive moral judgments, and not explicit knowledge of American criminal law. To preview our results, we find that on average, mens rea is less incriminating (or alternatively, that ignorance is less mitigating) for strict liability crimes relative to mens rea crimes, mirroring the law.

In Experiments 1-3, we additionally explore potential bases for differentiation between strict liability and mens rea crimes. In particular, we test whether several justifications for strict liability offered in legal scholarship have a counterpart in laypeople's intuitive moral judgments. Across experiments, we investigate whether views about punishment differ for strict liability and mens rea crimes, including the roles of retribution (Experiment 1 and Supplementary Experiment S1), deterrence (Experiments 1 and S1), and incapacitation (Supplementary Experiment S2). We also investigate whether strict liability and mens rea crimes tend to license different inferences about the actor's mental states (Experiments 1, 2, and S1), and whether there's something to the idea that relative to mens rea crimes, strict liability crimes are to a greater extent *malum prohibitum* (Experiments 2 and 3). Again, to preview our results, we find support for only one of these proposals: that relative to mens rea crimes, strict liability crimes are treated as more conventional, or *malum prohibitum*, and that this is because they tend to have more arbitrary or conventional elements.

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Experiment 1

Experiment 1 investigated whether laypeople differ in their treatment of strict liability and mens rea crimes. Research in moral psychology suggests that mens rea is critical to moral judgment (e.g., Cushman & Inbar, 2012; Rai and Fiske, 2011; Knobe 2003), but there is also evidence that a person's knowledge and intentions are not equally influential in evaluating all types of transgressions (Graham et al., 2011; Russell & Giner-Sorolla, 2011; Young & Saxe, 2011). Specifically, knowledge and intentions may be more important for "harm" violations than for "purity" violations, and many – but not all – offenses that have been historically treated as strict liability arguably involve some element of purity (e.g., statutory rape, incest, bigamy, food adulteration). We therefore consider both *public welfare* strict liability offenses that involve potential harm (speeding, selling drugs to minors) as well as *moral* strict liability offenses that violate purity (statutory rape, incest). We compare judgments concerning these four strict liability crimes against those for closely matched mens rea crimes that we likewise classify as public welfare (reckless driving, drug distribution) or as moral (seducing a minor, first cousin marriage).

In order to investigate the role of mens rea in judging perpetrators of these crimes, we presented participants with vignettes involving a transgression and varied the mental states of the perpetrator across different versions of each vignette. In particular, we varied whether the actor knew the fact that rendered an action illegal – e.g., that he was driving over the speed limit for speeding, or that a sexual partner was underage for statutory rape. When the actor was ignorant, we additionally varied whether the ignorance resulted from inadvertently bad information or from intentional deception; based on prior work, we reasoned that deception would be most

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likely to mitigate moral responsibility and punishment (Murray & Lombrozo, 2015; Phillips & Shaw, 2015). Finally, we also included a condition in which mental states were unspecified.

In sum, our experimental design included three experimental manipulations: participants read a vignette concerning a crime that was either strict liability or mens rea (which we refer to as “legal category”), that involved a public welfare offense or a moral offense (which we refer to as “moral classification”), and that attributed one of four “knowledge levels” to the principle actor. One primary hypothesis (H1) was that judgments concerning moral censure and punishment would depend on the actor’s knowledge level, with the harshest judgments when the actor transgressed knowingly. We also anticipated that being the target of deception would be even more mitigating than mere ignorance (H1a), and that these effects would be found for both mens rea and strict liability crimes (H1b).

Our secondary hypotheses concerned possible reasons why mens rea and strict liability crimes could receive different treatment. Specifically, we tested the following predictions: (H2) that knowledge level would influence judgments concerning public welfare crimes more strongly than those concerning moral crimes, (H3) that deterrence would be regarded as a more central reason for punishing strict liability crimes than for punishing mens rea crimes, and (H4) that when an agent’s mental states were not specified, participants would more often infer that the transgressor knew the key fact for strict liability crimes (how could she not realize she was speeding?) than for mens rea crimes.

Methods

Participants. Three-hundred-and-eighty-four adults (228 male, 155 female, 1 other/prefer not to specify, mean age = 30, $SD = 10$) participated in the study through Amazon Mechanical Turk. An additional 152 participants were tested, but were excluded for failing catch

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questions (92), due to a data collection error (52), or to ensure even numbers in all conditions (12).³ In all studies, participation was restricted to workers with IP addresses in the United States and with an approval rating of 95% or higher on previous Mechanical Turk tasks. Only U.S. citizens above the age of 18 were allowed to participate, to better mimic the composition of an actual jury. Participants were given thirty cents for their participation.

Materials & Procedure. The experimental stimuli consisted of thirty-two distinct vignettes to which participants were randomly assigned, followed by seven evaluative questions, one open-ended justification question, three reading comprehension questions, one mental state question, and three demographic questions.

Table 1: Crimes used in Experiment 1. For each crime, participants were assigned to one of four knowledge levels: *knowledge*, *no information*, *bad information*, or *deception*. Each crime is followed in parentheses by the relevant knowledge that was varied across knowledge levels.

| | Strict Liability Crimes | Mens Rea Crimes |
|-------------------|--|--|
| Moral | Statutory Rape (<i>Age of sexual partner</i>) | Seducing a Minor (<i>Age of person receiving material</i>) |
| | Incest (<i>Relatedness of sexual partner</i>) | First Cousin Marriage (<i>Relatedness of spouse</i>) |
| Public Welfare | Speeding (<i>Vehicle speed</i>) | Reckless Driving (<i>Speed & attendant circumstances</i>) |
| | Drugs to Minors (<i>Age of customer</i>) | Drug Distribution (<i>Nature of substance</i>) |

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Eight different crimes were chosen (see Table 1), four of which are strict liability crimes in a majority of states (statutory rape, incest, speeding, and selling drugs to minors⁴) and four of which are mens rea crimes (seducing a minor, first cousin marriage, reckless driving, and drug distribution). We chose mens rea crimes that were as similar as possible to the corresponding strict liability crimes to make it more likely that differences, if found, would not reflect idiosyncratic properties of the selected examples. The crimes were also chosen such that four represented classic moral/purity crimes (statutory rape, seducing a minor, incest, and first cousin marriage) and four were classified as public welfare crimes (speeding, reckless driving, selling drugs to minors, and drug distribution).

Each of the eight crimes was presented to a participant in one of four versions, each involving different information about the principal actor's knowledge. In the *knowledge* condition, participants were told that the actor knew the relevant fact that made a crime illegal (e.g., the age of a sexual partner for statutory rape). In the *no information* condition, participants were not given any information about the actor's knowledge; the actions were described with no reference to what the actor did or did not know. This condition mimics strict liability cases most closely, in that no information about the defendant's mental state is typically offered. In the *bad information* condition, participants were told that the actor received false but not ill-intentioned information about the relevant fact (e.g., in the statutory rape vignette, another person incorrectly but honestly believed the girl to be an 18-year-old college student and told the principle actor). In the *deception* condition, participants were told that the actor was intentionally deceived about the relevant fact (e.g., the girl lied about her age).

Examples of the different knowledge conditions for speeding are excerpted below (see Appendix A for all materials):

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Knowledge: “Alan was driving along a two lane highway. It was a nice day, and he was enjoying watching the scenery pass by outside the window. Alan knew the speed limit was 55 miles per hour and that he was driving over the speed limit, but Alan didn't slow down as the speedometer crept up to 70 miles per hour.”

No Information: “Alan was driving along a two lane highway. It was a nice day, and he was enjoying watching the scenery pass by outside the window. A police officer was parked alongside the highway with a speed gun pointed towards oncoming traffic...the officer looked at the gun and noticed that Alan was going 70 miles per hour.”

Bad Information: “Alan was driving along a two lane highway. It was a nice day, and he was enjoying watching the scenery pass by outside the window. Alan knew the speed limit was 55 miles per hour and was careful to check the speedometer periodically to make sure the car wasn't going faster than the speed limit...Alan was surprised to hear [he had been speeding]...Alan had never had any reason to suspect the speedometer was broken but later found out that it was.”

Deception: “Alan was driving along a two lane highway. It was a nice day, and he was enjoying watching the scenery pass by outside the window. Alan knew the speed limit was 55 miles per hour and was careful to check the speedometer periodically to make sure the car wasn't going faster than the speed limit...Alan was surprised to hear [he had been speeding]...Alan had never had any reason to suspect the speedometer was broken but later found out that his mechanic had intentionally tampered with it after Alan disputed a bill.”

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After reading the assigned vignette, the vignette was removed and participants answered a series of questions. First, participants evaluated our variables of interest, moral censure and punishment, in a randomized order:

Moral censure: “How morally wrong were [Actor’s] actions?” Participants indicated their answer on a scale from 1 (not at all morally wrong) to 7 (very morally wrong).

*Punishment:*⁵ “How much punishment does [Actor] deserve?” Participants indicated their answer on a scale from 1 (none at all) to 7 (very much).

Second, to insure that the strict liability and mens rea vignettes were well matched along other dimensions that could influence moral censure and punishment, participants answered the following questions on a separate screen and in randomized order, with ratings from 1 (not at all/none) to 7 (very/a great deal):

Disgust: “How disgusting did you find [Actor’s] actions?”

Anger: “How angry did [Actor’s] actions make you?”

Harm: “How much harm did [Actor’s] actions cause?”

Third, to test the idea that differences between the evaluation of strict liability and mens rea crimes stem, at least in part, from perceptions of why punishment is appropriate for each crime type, participants rated the two statements below in a randomized order, with ratings from 1 (completely agree) to 7 (completely disagree):

Deterrence: “Punishing people who [commit this crime] is critically important to preventing acts of [this crime] in society in general.”

Retribution: “Even if it won't prevent future [instances of this crime], a person who [commits this crime] deserves to be punished for this action.”

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Fourth, to insure that participants were attending to the task and reading materials carefully, participants answered two “catch questions,” easy true/false questions that were simply designed to test that they had read the vignette. For example, for the speeding vignette participants saw “Alan was going 100 MPH.” Participants who answered either question incorrectly were excluded from further analyses. This screen included a third question about the actor’s knowledge (e.g., “whether “Alan knew he was driving over the speed limit”), which served as a mere comprehension question for participants in the knowledge, bad information, and deception conditions, where knowledge or ignorance of the vital fact – speed of the car, age of the sexual partner, etc. – were stipulated. However, it also allowed us to test for differences in baseline inferences across crime types for the no information condition.

Finally, participants justified their reaction to the story in a few sentences,⁶ received another attention check based on Oppenheimer, Meyvis, and Davidenko (2009), and answered demographic questions with their gender, age, and whether or not they were a parent.⁷

Results

Disgust, anger, and harm. To ensure that our strict liability and mens rea vignettes did not differ systematically in judged harm or elicited anger and disgust, we performed a series of one-way ANOVAs with legal category (strict liability, mens rea) as a between-subjects variable and with each rating as a dependent variable. No significant differences were found, suggesting that the effects of legal category we report below are unlikely to result from these potential confounds.⁸

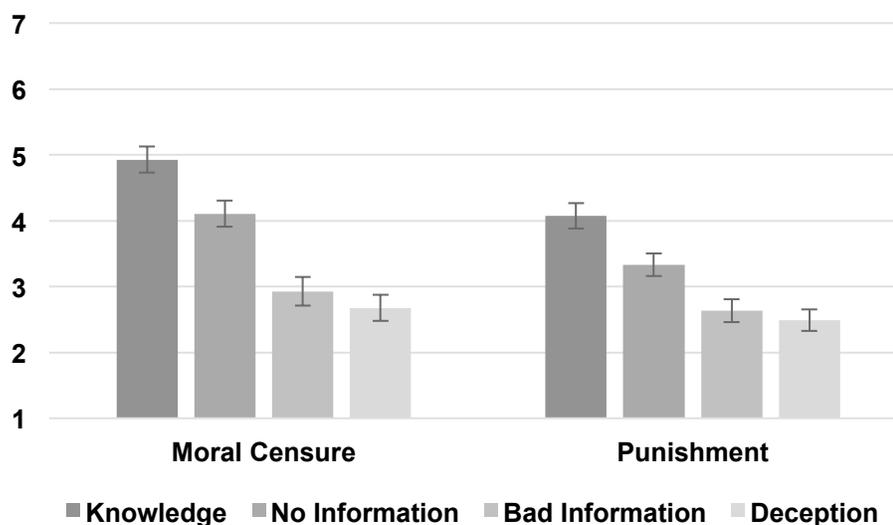
Moral censure and punishment. Do mental states play different roles in intuitive judgments concerning strict liability and mens rea crimes? And if so, does the relationship hold across moral and public welfare crimes? To address these questions we performed a series of 2

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(legal category: strict liability, mens rea) x 2 (moral classification: moral, public welfare) x 4

(knowledge level: *knowledge, no information, bad information, deception*) ANOVAs for moral censure and punishment.

Figure 1: Effect of knowledge on moral censure and punishment. Higher values correspond to greater amounts of moral censure and punishment. Error bars correspond to one SEM in each direction.



These analyses revealed a significant main effect of knowledge for both moral censure, $F(3,368) = 27.39, p < .001, \eta^2 = .183$, and punishment, $F(3,368) = 18.87, p < .001, \eta^2 = .133$ (see Figure 1). Independent sample t-tests revealed that ratings for each of these dependent variables were significantly higher in the *knowledge* condition than in any of the other three conditions ($ps < .001$), consistent with most previous work on the effects of intent on moral judgments, and supporting hypothesis H1. We also found that ratings for the *no information* condition were significantly higher than for the *bad information* and *deception* conditions ($ps <$

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.02), but that ratings for the *bad information* and *deception* conditions were not significantly different from each other for either dependent variable, challenging hypothesis H1a. This suggests that misinformation had a mitigating effect, but that the source of the misinformation was not relevant.

We also found significant effects of legal category for both moral censure and punishment, with higher ratings for strict liability crimes ($M_c = 3.86$, $SD_c = 2.20$; $M_p = 3.38$, $SD_p = 1.78$) than for mens rea crimes ($M_c = 3.46$, $SD_c = 2.16$; $M_p = 2.89$, $SD_p = 1.85$) (see Table 2). We hesitate to draw strong conclusions from these differences, as they could simply reflect our choice of stimulus materials rather than the classes of crimes we take them to represent. However, it's worth repeating that our strict liability and mens rea crimes were well matched along dimensions of disgust, anger, and harm.

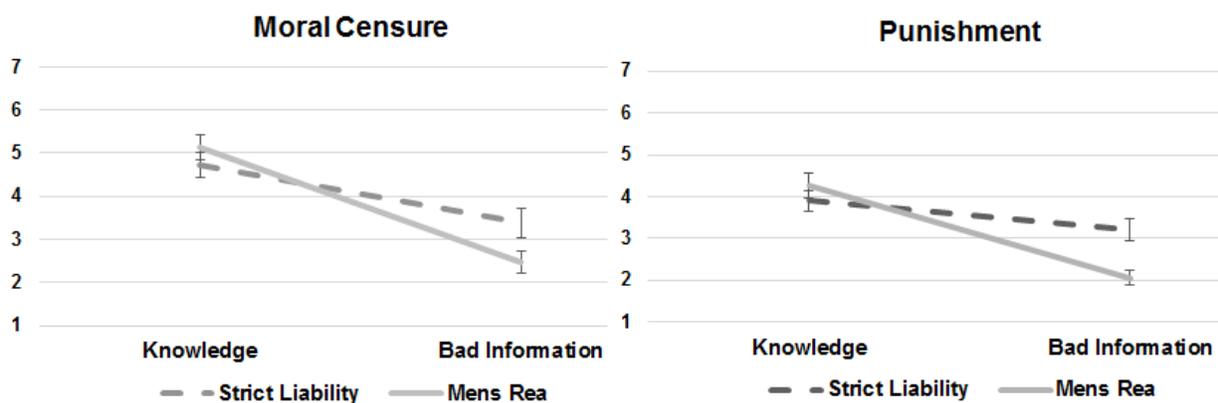
Most critically, we also found a significant interaction between knowledge condition and legal category for punishment, $F(3, 368) = 3.48$, $p < .016$, $\eta^2 = .028$: ignorance of the vital fact was more mitigating for mens rea crimes than for strict liability crimes. To confirm this interpretation statistically, we repeated our analysis with only the *knowledge* and *bad information* conditions (see Figure 2), which revealed that for mens rea crimes, punishment ratings were significantly higher for the *knowledge* condition than for the *bad information* condition, $t(78) = 6.17$, $p < .000$, $d = 1.40$ (corrected for violating Levene's), but that for strict liability crimes, there was no significant difference between the two conditions ($p = .061$). The corresponding interaction for moral censure was not significant, $F(3, 368) = 2.16$, $p < .093$, $\eta^2 = .017$, but trended in the same direction. These findings challenge prediction H1b: contrary to our initial expectations, and contrary to common assumptions in legal scholarship, our data support an intuitive basis for the special treatment of strict liability crimes.

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Table 2: Means as a function of legal category. Standard deviations in parenthesis.

| Experiment | Dependent Measure | Knowledge | No Information | Deception | Bad Information |
|------------|-------------------|-------------|----------------|-------------|-----------------|
| Exp. 1 | Moral Censure | | | | |
| | Strict Liability | 4.73 (1.98) | 4.50 (1.78) | 2.83 (2.18) | 3.37 (2.33) |
| | Mens Rea | 5.13 (1.94) | 3.71 (2.06) | 2.52 (1.69) | 2.48 (1.83) |
| | Punishment | | | | |
| | Strict Liability | 3.90 (1.64) | 3.60 (1.55) | 2.81 (1.88) | 3.21 (1.90) |
| | Mens Rea | 4.25 (2.09) | 3.06 (1.82) | 2.17 (1.19) | 2.06 (1.30) |
| Exp. S1 | Moral Censure | | | | |
| | Strict Liability | 4.04 (2.00) | 4.04 (1.83) | 3.50 (2.08) | 3.71 (2.18) |
| | Mens Rea | 6.02 (1.30) | 4.50 (1.81) | 3.04 (2.20) | 3.54 (2.12) |
| | Punishment | | | | |
| | Strict Liability | 4.29 (1.66) | 4.21 (1.76) | 3.44 (1.90) | 4.15 (1.74) |
| | Mens Rea | 4.92 (1.57) | 3.69 (1.53) | 2.58 (1.67) | 3.21 (1.88) |

Figure 2: Interaction between knowledge and legal category for moral censure (not significant) and punishment (significant). Error bars correspond to one SEM in each direction.



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Finally, for moral censure, there was a two-way interaction between knowledge level and moral classification, $F(3, 368) = 2.97, p < .032, \eta_p^2 = .024$: for moral crimes, moral censure did not differ across the *knowledge* and *no information* conditions, $p = .59$, nor across the *bad information* and *deception* conditions, $p = .46$, but was significantly higher for both of the former conditions than for either of the latter conditions, $ps < .001$. In contrast, for public welfare crimes, moral censure was significantly higher for the *knowledge* condition than for all other conditions, $p < .001$, which did not differ from each other (ps ranged from .11 to .60). These findings are interesting to consider in light of research by Young and colleagues (Young & Tsoi, 2013; Young & Saxe, 2011), which found that intent was less relevant to the evaluation of purity violations than harm violations. The findings are consistent with hypothesis H2 if we restrict our focus to the comparison between the knowledge and no information conditions, but the global pattern of results does not support the idea that moral crimes are insensitive to knowledge and intent.

Bases for punishment: deterrence and retribution. To test whether punishment was justified differently across legal categories, ratings for bases for punishment were each subjected to a 2 (legal category: strict liability, mens rea) x 4 (knowledge level: *knowledge*, *no information*, *bad information*, *deception*) ANOVA. For deterrence, this analysis revealed a main effect of legal category, $F(1, 376) = 9.08, p = .003, \eta_p^2 = .024$, with higher ratings for mens rea crimes ($M = 4.82, SD = 1.89$) than for strict liability crimes ($M = 4.23, SD = 1.96$), contrary to hypothesis H3 and what one might expect on the basis of legal scholarship, which sometimes justifies the imposition of strict liability on utilitarian grounds related to deterrence. This surprising result is unlikely to be a simple artifact of our stimulus materials: recall that moral censure and

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punishment were both *lower* for mens rea crimes than for strict liability crimes, and we did not find main effects for anger, disgust, or harm across legal category. No significant results were found for retribution.

Inferring knowledge and intent. Responses to the true/false knowledge question were first checked to confirm that participants correctly responded “true” for the *knowledge* condition and “false” for the *bad information* and the *deception* conditions. Reassuringly, accuracy was high, ranging from 93% for the *deception* condition to 95% for the *knowledge* condition and 99% for the *bad information* condition.

For the *no information* condition, we were interested in whether assumptions about knowledge would differ for mens rea and strict liability crimes. We therefore conducted a chi-squared test comparing rates of inferred knowledge. This analysis revealed no difference across legal category, challenging prediction H4: in both cases, participants inferred knowledge 45% of the time.⁹

Discussion

In Experiment 1, we sought to establish whether moral and punitive judgments concerning strict liability crimes reflect their treatment by the legal system, according to which knowledge is irrelevant. In fact, contrary to our prediction (H1b), participants did differentiate between strict liability and mens rea crimes: ignorance was significantly less mitigating for strict liability crimes than for closely matched “mens rea” crimes.

We also tested, but failed to find support for, three hypotheses about why mental states might have a different effects for mens rea and strict liability crimes. First, we considered the possibility (H2) that folk judgments would show a diminished role for mental states for moral crimes relative to public welfare crimes, which is consistent with both psychological data

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(Young & Tsoi, 2013; Russell & Giner-Sorolla, 2011; Young & Saxe, 2011) and the historical association between strict liability and purity (*US v. Morissette*, 1952). While we did find that knowledge interacted with moral classification – with the *no information* conditions patterning differently across moral classifications – this effect did not interact with legal category. It thus appears that violating purity is neither necessary nor sufficient to explain the attenuated role for mental states observed in strict liability cases.

Second, we tested the idea (H3) that for strict liability crimes, punishment may be warranted for reasons of deterrence, if not retribution. However, we found no global differences in retribution ratings, and *lower* deterrence ratings for strict liability crimes than for mens rea crimes. This is surprising given that punishment ratings were *higher* for strict liability crimes than for mens rea crimes, even though crime types did not differ in perceived harm.

Finally, we also failed to find support for the idea (H4) that inferences about mental states might differ across legal category, with mental states being more likely to be inferred (or perhaps more difficult to ascertain) for strict liability: in our *no information* condition, rates for inferred knowledge did not differ across strict liability and mens rea crimes.

In sum, the results of Experiment 1 suggest that laypeople's intuitive moral judgments mirror the law in reserving strict liability crimes for special treatment, but don't shed light on why this might be. Before moving on to Experiments 2 and 3, in which we find support for one possibility, it's worth addressing some open questions from Experiment 1, which we investigated in supplementary experiments.

First, one concern is that the results from Experiment 1 could be driven by the particular crimes that we happened to test. Four crimes are hardly representative of an entire legal category. Moreover, by selecting crimes that were so closely matched *across* legal categories (e.g.,

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speeding paired with reckless driving), we could have inadvertently selected crimes that are not very representative of strict liability or mens rea crimes in general. To address this possibility, we ran an additional experiment which we refer to as Experiment S1 (see Appendix C for a full report). In Experiment S1, we instead selected strict liability and mens rea crimes based on how frequently they are charged, as represented by FBI crime statistics (FBI, 2012).¹⁰ For strict liability crimes, this yielded statutory rape, selling drugs within 1,500 feet of a school, speeding, and driving under the influence; for mens rea crimes, this yielded sexual battery, burglary, theft, and (non-sexual) battery. Other than crime selection, the methods and procedure mirrored those of Experiment 1. Our key findings from Experiment 1 were replicated with these new crimes: ignorance significantly mitigated moral censure and punishment ratings for mens rea crimes, but had no significant effect for strict liability crimes. Strict liability crimes were also punished significantly more than mens rea crimes, and, as in Experiment 1, deterrence was higher for mens rea crimes.

A second concern is that Experiment 1's judgments concerning punishment may have been insufficiently fine-grained. In a supplementary Experiment S2 (reported in Appendix E), we gave participants the opportunity to separately specify the appropriate levels for fines and for jail time, rather than collapsing both into a single measure of punishment. We also included a third possible basis for punishment: incapacitation. The findings from this supplementary experiment supported the interpretation of Experiment 1: we found the same pattern of responses concerning the role of knowledge across legal categories, we again found that strict liability crimes were punished more harshly than mens rea crimes, and incapacitation was actually cited more often as a basis for punishing mens rea crimes than strict liability crimes.

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In conjunction with the findings from Experiment 1, these supplementary experiments provide support for the idea that people mirror the law in their treatment of mens rea versus strict liability crimes, but the findings do not (yet) reveal the basis for this special treatment.

Experiment 2

Experiment 1 found support for the idea that laypeople’s intuitive judgments mirror the law in the following way: for mens rea crimes, judgments are sensitive to differences in mental states (*knowledge* versus *bad information*), while for strict liability crimes, judgments are less sensitive (or even indifferent). The data also revealed high levels of punishment assigned to strict liability offenders, despite the fact that strict liability offenses were judged no worse than mens rea crimes (in terms of overall harm or elicited anger and disgust), and despite the fact that three common justifications for punishment – retribution, deterrence, and incapacitation (tested in Experiment S2) – were not endorsed more strongly for strict liability crimes than for mens rea crimes.

Experiment 2 considers an explanation for these results with roots in the Supreme Court case of *United States v. Morissette*, mentioned briefly in the introduction. In *Morissette*, Justice Jackson noted that historically many strict liability crimes were regulatory in nature, with the aim of improving public safety and welfare. He further suggested that strict liability crimes were therefore primarily *malum prohibitum* rather than *malum in se*, meaning that transgressions were considered wrong *because they were prohibited* (i.e., violated a regulation), not wrong or evil *in themselves*. For instance, while it isn’t intrinsically wrong to drive a car at 50 miles per hour, it is wrong to do so in a 25-mile-per-hour zone. To quote Justice Jackson’s Supreme Court Opinion:

“While such offenses do not threaten the security of the state in the manner of treason, they may be regarded as offenses against its authority, for their occurrence impairs the

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efficiency of controls deemed essential to the social order as presently constituted. In this respect, whatever the intent of the violator, the injury is the same.... Hence, legislation applicable to such offenses...does not specify intent as a necessary element” (Morissette v. United States, 342 U.S. 246, 1952; quoted in Levenson, 1992).

In other words, the reason for punishing strict liability crimes is in large part a function of having violated a rule, above and beyond possible harm due to the immediate consequences of the violation.

The legal distinction between *malum prohibitum* and *malum in se* mirrors a cognitive distinction explored in developmental research. Studies have found that children as young as six are able to distinguish reliably between actions that are “rule contingent,” or wrong merely because an authority figure or rule says they are wrong, and actions that are *intrinsically* wrong, and would therefore be wrong even if no rule or authority figure prohibited them (Nucci & Turiel 2009, Turiel 2008). For example, if there is a rule against wearing pajamas to school, then doing so might be wrong and merit detention, no matter that the action would be perfectly acceptable on pajama day. The moral censure and punishment associated with wearing pajamas is therefore contingent on the presence of a rule. Similarly, it could be that participants judged our strict liability crimes wrong and deserving of punishment in large part because they violated societally set rules, even though they did not regard the actions themselves as more harmful, angering, or disgusting than those corresponding to mens rea crimes, and even though they thought retribution, deterrence, and incapacitation were, if anything, more appropriate reasons for punishing commissions of the mens rea crimes.

To test these ideas, we had participants evaluate vignettes written in the style of our *no information* condition from Experiment 1. Then, subsequent to reading and evaluating the

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original vignettes, participants were told that the relevant statute had been changed. For example, participants in the statutory rape vignette were told, after initial judgments, that the age of consent had been changed: the age of consent had been lowered to 15, meaning that the action described in the vignette was no longer a crime. Participants then provided a second set of ratings for moral censure and punishment, allowing us to assess how much the change in statute affected these judgments, and therefore how “rule contingent” (or *malum prohibitum*) they regarded the original wrong.

Finally, we also added a question about whether the offender had a responsibility to acquire the knowledge relevant to the crime (e.g., the speed at which he was driving). If people believe that strict liability crimes have higher demands in this regard, then ignorance may be treated as a form of negligence, deserving of punishment despite an absence of bad intent.

In sum, Experiment 2 was designed to test two hypotheses. The central hypothesis (H5) was that for strict liability crimes, punishment and moral censure ratings would decrease after participants learned of the statute change (such that the action was no longer prohibited), and that this decrease would be greater for strict liability crimes than for mens rea crimes. A secondary hypothesis (H6) was that participants would believe offenders had a greater responsibility to avoid ignorance for strict liability crimes than for mens rea crimes.

Methods

Participants. Four-hundred adults (249 male, 149 female, 2 other/prefer not to specify, mean age = 31, SD = 10) participated in the study through Amazon Mechanical Turk. An additional 90 participants were tested, but were excluded for failing catch questions (77) or to ensure even numbers in all conditions (13). Only US participants who indicated they were older

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than 18 were allowed to participate, to approximate a real jury pool. Participants were given fifty cents for their participation.

Materials & Procedures. In an effort to view strict liability and mens rea crimes broadly, we included all the crimes used in Experiments 1 and S1 and added three new strict liability and three new mens rea crimes. The new strict liability crimes were illegal dumping, possession of an unregistered firearm, and hunting a migratory bird. The new mens rea crimes were disturbing the peace, public drunkenness, and minor in possession of alcohol (see Table 3). As in Experiment S1, these new crimes were chosen as the next most frequently charged according to FBI statistics.¹¹ This resulted in nine strict liability crimes and eleven mens rea crimes¹² for a total of twenty crimes. The resulting design had twenty conditions, one for each crime.

Table 3: Crimes used in Experiments 2 and 3. Each crime is followed in parentheses by the relevant knowledge that was varied across knowledge levels in Experiment 3.

| Strict Liability | Mens Rea |
|---|---|
| Illegal Dumping | Disturbing the Peace |
| <i>(Distance from waterway)</i> | <i>(Unlawful to fight in public)</i> |
| Unregistered Firearm | Public Drunkenness |
| <i>(Registration status of firearm)</i> | <i>(Intoxication level prevented taking care)</i> |
| Hunting Migratory Bird | Minor in Possession |
| <i>(Bird's protected status)</i> | <i>(Beverage contained alcohol)</i> |
| Selling Drugs within 1,500 Feet | Sexual Battery |
| <i>(Distance from nearest school)</i> | <i>(Consent for the touching)</i> |
| DUI | Burglary |
| <i>(Level of intoxication)</i> | <i>(Owner's intent to keep the vase)</i> |
| | Theft |
| | <i>(whether saw had been discarded)</i> |
| | Battery |
| | <i>(Whether friend was genuinely in danger)</i> |

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After reading a short vignette describing one of the crimes, participants were asked the moral censure, disgust, harm, and anger questions used in the previous experiments. Participants were also asked the two punishment questions which differentiated fines and jail time. These questions were worded as follows:

Jail Time: “How much jail time should [Actor] receive?” Participants indicated their answers on a continuous slider that ranged from 0 to twice the maximum penalty that could actually be assigned for the most harshly punished crime, assuming a first offense. The maximum value for jail time was 36 years.

Fines: “How much should [Actor] be fined.” Participants indicated their answers on a continuous slider that ranged from 0 to twice the maximum penalty that could actually be assigned for the most harshly punished crime, assuming a first offense. The maximum value for fines was \$100,000.

We did not ask the deterrence, retribution, or incapacitation questions in this experiment.

We also added two new dependent variables. Using the *no information* condition allowed us to ask participants questions designed to assess their inferences about the actor’s knowledge as well as the actor’s responsibility with respect to that knowledge. Examples from the speeding condition are presented below:

Knowledge Inference: “Did Alan know that he was driving over the speed limit?”

Rated from 1 (no, definitely not) to 7 (yes, definitely).

Knowledge Responsibility: “Did Alan have a responsibility to check whether he was going over the speed limit?” Rated from 1 (no, definitely not) to 7 (yes, definitely).

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After participants answered these questions, we presented them with a statute change that stated that the law had been changed such that the actor's action was no longer illegal. In each case, we were clear that the statutory change was due to a technicality, not due to any change in the harm caused by the action. The participants were then asked again to provide moral censure and punishment ratings in light of the new statutory information.¹³ An example from the migratory bird vignette is presented below:

“After Alan’s arrest, the officer was informed that the statute had been changed. Due to a technicality (not to a change in the bird species’ status), the bird Alan shot was no longer on the list of protected birds. Alan’s actions were therefore no longer technically a crime. Please answer the following questions based on the change in statute.”

Results

Moral censure and punishment: ratings under statutory change. To test hypothesis H5, that the wrong associated with strict liability crimes is more contingent on the presence of a rule than that of mens rea crimes, we created difference scores for moral censure, fines, and jail time by subtracting each participant’s rating after the statute change from that participant’s corresponding initial rating.¹⁴ Independent samples t-tests revealed that both moral censure, $t(398) = 3.35, p < .001, d = .34$, and fines, $t(289) = 2.32, p < .021, d = .27$ (corrected for violating Levene’s), dropped significantly more for strict liability crimes than for mens rea crimes. Specifically, for strict liability crimes, there was a moral censure rating drop of .916 on a 7-point scale (SD = 1.42) and a fine drop of \$4,673.33 (SD = \$13,401.99). For mens rea crimes, the drop in moral censure was only .477 (SD = 1.20) and the drop in fines was \$2,009.29 (SD = \$8,439.90) (corrected for violating Levene’s). Jail time also dropped a larger amount for strict

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liability crimes ($M = 0.479$, $SD = 2.02$) than for mens rea crimes ($M = 0.382$, $SD = 2.17$), but this drop was not significant, $p = .729$. Even when restricting analyses to the 14 crimes used in Experiments 1 and S1 (and therefore reducing the sample size and statistical power), the drop in moral censure ratings was significantly greater for strict liability crimes than for mens rea crimes, $t(278) = 2.91$, $p < .004$, $d = .35$.

Inferred knowledge and responsibility. Responses to the question about the actor's responsibility for obtaining reliable information did not differ across strict liability ($M = 5.25$, $SD = 2.04$) and mens rea ($M = 5.61$, $SD = 1.82$) crimes, $t(363) = 1.84$, $p < .067$, $d = .19$ (corrected for violating Levene's), although there was a trend for higher ratings in the latter case. If anything, this goes counter to our expectation (H6) that people might be held more responsible in strict liability cases, rendering ignorance akin to a form of negligence deserving punishment.

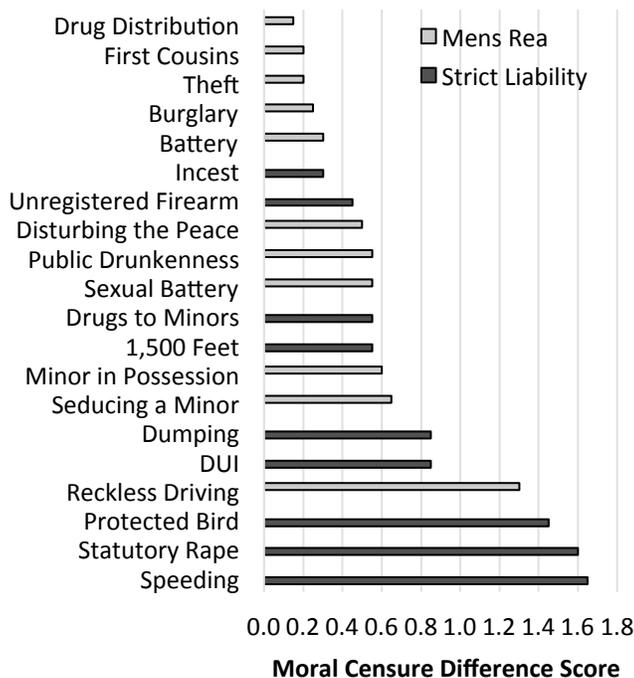
We also found that participants were significantly more likely to believe that the principle actor possessed the relevant knowledge for mens rea crimes ($M = 3.79$, $SD = 2.04$) than for strict liability crimes ($M = 2.63$, $SD = 1.63$), $t(398) = 6.17$, $p < .000$, $d = .62$. This differs from what we found in Experiment 1 in relation to hypothesis H4; in that experiment we found no differences in inferred knowledge across mens rea and strict liability crimes. It is possible that the difference revealed here is the result of a more sensitive, continuous measure. Whatever the cause, it raises the question of whether the greater drop in ratings for strict liability crimes than for mens rea crimes after the statutory change was a consequence of differences in inferred knowledge, or an independent effect. To test this, we computed partial correlations between legal category and each of our three difference scores (moral censure, fines, and jail time), controlling for inferred knowledge. The relationship between legal category and fine reduction remained significant, $r =$

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-.126, $p = .012$, as did that between legal category and reduction in moral censure, $r = -.165$, $p < .001$.

Analyses across crimes. Not surprisingly, there was considerable variation across crimes for all of our measures (see Appendix B for additional data by crime). Figure 3 plots the moral censure difference scores for each crime. The figure makes it clear that while the means for mens rea and strict liability crimes differed, their distributions were overlapping. In the general discussion we return to some of the outlying cases.

Figure 3: Moral censure difference scores (rating before statute change minus rating after statute change) by crime in Experiment 2.



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Discussion

Experiment 2 had several aims. Most importantly, we found support for one account of what differentiates strict liability crimes from mens rea crimes. For the crimes we tested, the mere act of violating a prohibition played a larger role for strict liability crimes than for mens rea crimes. Specifically, a change in statute led to a significantly greater decrease in moral censure and fines for strict liability crimes than for mens rea crimes, supporting hypothesis H5. This is consistent with the idea that strict liability crimes are wrong to a greater extent *because* they are prohibited; they are partially *malum prohibitum*, not only *malum in se*. In contrast, the perceived wrongness of mens rea crimes likely stemmed more directly from the harm they caused and other intrinsic properties.¹⁵

Experiment 2 also found a difference in the knowledge imputed to offenders of different crimes: the modal response for strict liability crimes was to infer an absence of knowledge; the modal response for mens rea crimes was the midpoint of our scale. This difference does not appear to have driven the greater “rule contingency” of strict liability crimes (as reflected in the greater drop in fines and moral censure after a statute change). However, it may nonetheless be related. To the extent that strict liability crimes hinge on the precise specification of a rule (e.g., an exact speed limit or age of consent, or whether a bird or substance is on an official list), ignorance may be plausible, yet still fail to be mitigating: because the crimes are *malum prohibitum*, the guilty mind is less relevant.

Experiment 3

Experiment 1 found that ignorance was less mitigating for strict liability crimes than for mens rea crimes, but failed to identify a potential basis for this differential effect. In Experiment

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2, we found support for one relevant difference between strict liability and mens rea crimes: on average, the former were treated as more “rule contingent” in the sense that censure and punishment dropped to a greater extent after a rule change. This is consistent with the suggestion that strict liability crimes are akin to conventional violations, or *malum prohibitum*. A remaining question, however, is *why* strict liability are treated in this way. The historical examples cited by Justice Jackson in *United States v. Morissette* were largely public safety regulations, but many contemporary strict liability crimes address other domains of human behavior. What is it, then, about strict liability crimes that renders their evaluation more contingent on the presence of a rule, and less contingent on mens rea?

While not all contemporary strict liability crimes involve public safety or welfare regulations, many seem to involve a somewhat *arbitrary* or conventional element. Returning to an earlier example, it is not in itself wrong or illegal to drive a car 50 miles per hour, but it is illegal to do so in a 25-mile-per-hour zone. But why is the zone’s speed limit designated as 25 miles per hour, and not 24 or 26? Similarly, it is not in itself wrong or illegal to have sex, but in our country it is illegal for an adult to do so with a person who is below a certain age. But why is that age 18 in some states, and 16 in others? Of course, there are very good reasons why driving too quickly or having sex with a child could be considered wrong in themselves – the rules are not merely a matter of convention. But the specific line that is drawn between legal and illegal actions – the specific age, speed, distance, etc., specified in a prohibition – is somewhat arbitrary and may therefore render strict liability crimes a hybrid of *malum in se* and *malum prohibitum*, whereas most mens rea crimes are more cleanly *malum in se*.

To test this idea, Experiment 3 investigates whether participants consider strict liability crimes to be more arbitrary than mens rea crimes. Our first prediction (H7) was that, on average,

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the rules corresponding to strict liability crimes would be judged more arbitrary than those corresponding to mens rea crimes. We also obtained a measure reflecting the role of knowledge for each crime by presenting bad information and knowledge conditions to each participant. Extending the findings from Experiment 1, we predicted that the effect of knowledge would be smaller for strict liability crimes than for mens rea crimes. We also predicted an association between ratings for arbitrariness and the magnitude of the effect of knowledge (H8): the more arbitrary the rule, the smaller the influence of mens rea.

Methods

Participants. Four-hundred adults (182 male, 218 female, mean age = 35, SD = 12) participated in the study through Amazon Mechanical Turk. An additional 84 participants were tested, but were excluded for failing catch questions (80) or to ensure even numbers in all conditions (4). Only US participants who indicated they were older than 18 were allowed to participate, to approximate a real jury pool. Participants were given sixty-five cents for their participation.

Materials & Procedures. The stimuli involved the 20 crimes from Experiment 2. Participants were randomly assigned to one of twenty conditions, representing each of the crimes. Each participant initially read the *bad information* vignette of the assigned crime. For most of the crimes, the *bad information* version had been used in previous experiments, but for the crimes added in Experiment 2, new *bad information* versions were created (see Appendix D for the six new vignettes). After reading their assigned *bad information* vignette, participants were asked the moral censure, fine, and jail time questions used in Experiment 2.

Next, participants were presented with a knowledge change, presented similarly to the statute change in Experiment 2. Participants were asked to imagine that the actor had in fact

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known the crucial fact, and they then provided the moral censure, fine, and jail ratings again.¹⁶

This manipulation allowed us to obtain a within-subjects measure of the effect of knowledge. An example from the migratory bird vignette is presented below:

“Suppose that Alan had actually realized, when he shot the bird, that his actions broke the law – that is, that he was shooting a protected bird. And suppose that he decided to shoot the bird anyway. In this case, where Alan knowingly violated the law, how would you respond to the following questions? (Your responses may be the same as those you just provided, or they may differ.)”

Finally, all participants, regardless of which crime they initially evaluated, rated the arbitrariness of all twenty crimes. The twenty crimes were preceded by the following instructions:

“Below you will see a list of laws. We’d like you to give your intuitions about how arbitrary each law seems to you. That is, do you believe that there’s a good reason for the law to draw the line where it does in terms of which actions are legal versus illegal? Or does it seem like the law is somewhat arbitrary in the sense that it could reasonably have drawn the line differently?

Please do not consult any outside resources, like other people or websites. We are interested in your own intuitions, whether or not they correspond to the current legal system. Even if you think all laws are somewhat arbitrary or not at all arbitrary, please take note of which seem more or less arbitrary and respond accordingly.”

The twenty crimes were then presented in a randomized order. Each crime was presented as true to its statutory language as possible, with minor adjustments in wording to facilitate

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comprehension. By providing the full statutory language we could insure that participants were not operating with different, common sense notions of what actions constitute each crime. Below is the text for migratory bird:

“Migratory Birds: it is illegal for anyone to pursue, hunt, take, capture, or kill any migratory bird, or any part, nest, or egg of any such bird.” Participants indicated their agreement on a scale of 1 (not at all arbitrary) to 7 (completely arbitrary).

Finally, subjects answered the demographic and catch questions used in previous experiments.

Results

Arbitrariness rating. One of the primary aims of Experiment 3 was to test whether, as we hypothesized (H7), strict liability crimes are considered more arbitrary than mens rea crimes. To address this question, we computed the average arbitrariness rating for strict liability crimes and for mens rea crimes for each participant. We then ran a paired-samples *t*-test on mean arbitrariness ratings as a function of legal category. Consistent with our prediction (H7), participants rated strict liability crimes significantly more arbitrary ($M = 1.38$, $SD = .24$) than mens rea crimes ($M = 1.25$, $SD = .19$), $t(399) = 1.80$, $p < .037$, $d = .04$ (one-tailed test).

Moral censure and punishment: ratings under knowledge change. This experiment was the first in which we manipulated knowledge within subjects. Thus, we were able to create difference scores for each participant for moral censure, fines, and jail time by subtracting each participant’s initial, *bad information* ratings¹⁷ from the rating given after we asked that participant to assume that the perpetrator had knowledge of the vital facts. Surprisingly, a series of independent samples *t*-tests comparing this difference score across legal category did not find significant effects ($ps > .055$). This departure from our previous findings could be due to the

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within-subjects design or to the addition of six crimes that were not included in Experiment 1 or in the supplementary experiments, and which were much less familiar than those used in our initial studies. When we ran the same independent samples *t*-test on difference scores for the original 14 crimes from Experiments 1 and S1, we found a significantly greater effect of knowledge for mens rea than for strict liability crimes, $t(270) = 4.11, p < .001, d = .49$ (corrected for violating Levene's), replicating the original effect.

Correlation between knowledge effects and arbitrariness of assigned story. Finally, we tested whether the arbitrariness of a crime would relate to the magnitude of a knowledge effect for that crime. If part of what differentiates strict liability crimes from mens rea crimes is their more conventional or arbitrary nature, and this difference is partially responsible for the relative unimportance of mens rea, then we would expect arbitrariness ratings to be negatively correlated with the magnitude of a knowledge effect. We ran a bivariate correlation between each participant's knowledge effect rating and her arbitrariness rating for the specific crime she read. Consistent with our prediction (H8), we found that moral censure scores were significantly, negatively related to arbitrariness, $r = -.13, p < .012$. We found no significant correlations with either punishment measure.

Discussion

Experiment 3 confirmed our prediction that strict liability crimes are considered more arbitrary than mens rea crimes. This prediction was motivated in part by arguments developed in *Morissette* and the findings from Experiment 2: if an action is wrong merely because it is prohibited, not because of its intrinsic properties, then the prohibition must be somewhat arbitrary rather than being grounded in intrinsic harm or other moral considerations. To be clear, our contention is not that strict liability crimes are not wrong in themselves, but merely that

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many also have a conventional element, and that the role for such arbitrary or conventional elements is greater, on average, for strict liability crimes than for mens rea crimes.

We also found a significant, though small, correlation between participants' arbitrariness ratings and the extent to which their judgments varied across knowing and unknowing violations. Specifically, the perpetrator's mental states (mens rea) had a greater impact on ratings the less arbitrary the rule. There could be two factors contributing to this association. First, as suggested by *Morissette*, strict liability crimes could involve an affront to authority that comes from the rule violation itself, and which therefore occurs irrespective of the actor's intent. When a rule has an arbitrary or conventional element, the harm that ensues from transgression will be partially of this form, and therefore insensitive to mens rea. Second, when a rule is arbitrary, the knowledge and intentions associated with knowingly breaking that rule are not intrinsically bad. For instance, intentionally driving at 55 miles per hour is not itself wrong; it only becomes so in the context of a rule that specifies an area as a 50-mile per hour zone. When a rule is *not* arbitrary, by contrast, the intention is reprehensible even absent a rule: an intention to assault is wrong whether or not a rule prohibiting assault is in place. If sensitivity to mens rea reflects the "badness" of the intentions associated with a knowing transgression, one should expect greater sensitivity to mental states when evaluating the transgression of non-arbitrary rules.

General Discussion

In the work reported here, we set out to test whether the legal distinction between strict liability and mens rea crimes reflects (and potentially reveals) aspects of intuitive moral judgment. Here we summarize and discuss our key findings.

Experiment 1 revealed that judgments concerning mens rea crimes were in fact more sensitive to the actor's knowledge and intent than were those concerning strict liability crimes. In

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particular, ignorance was treated as a mitigating factor for a variety of judgments for mens rea crimes, but not for strict liability crimes. Experiments 1 and 2 also tested, and failed to find support for, various hypotheses about why strict liability crimes might receive special treatment: because they often involve considerations of purity, because they merit punishment not for retribution, but on utilitarian grounds (deterrence or incapacitation), because they support different default assumptions about the actor's underlying knowledge, or because people perceive a greater responsibility to avoid ignorance for strict liability crimes.

In Experiments 2 and 3, we found support for an alternative proposal: that strict liability crimes have more features that are *malum prohibitum*, or wrong because prohibited, while *mens rea crimes* are largely *malum in se*, or wrong in themselves. In Experiment 2, we asked participants to morally evaluate and assign punishment to actors who committed various crimes, and we had them do so again after learning that a statute change rendered their original actions equally harmful, but technically no longer crimes. We found that following this statute change, ratings for strict liability crimes decreased significantly more than those for mens rea crimes, suggesting that the strict liability crimes were initially judged harshly in greater part *because* they were prohibited. These findings have analogues in social and cognitive development, where a similar method has been employed to differentiate between moral and “conventional” wrongdoing (Nucci & Turiel, 2009; Turiel, 2008). Experiment 3 focused on another aspect of conventionality: the potentially arbitrary nature of the rule involved. We found that rules prohibiting strict liability crimes were on average judged more arbitrary than rules for mens rea crimes, and that the more arbitrary the rule, the more attenuated the role of mental states.

These findings help resolve an otherwise puzzling aspect of our data. We consistently found that strict liability crimes were punished more severely than mens rea crimes, despite the

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fact that our mens rea crimes were rated comparably or worse along other dimensions, such as harm and the disgust and anger that they elicited. We propose that for mens rea crimes, decisions about punishment reflected these more intrinsic properties of the crimes, while for strict liability crimes, punishment was a function of both these intrinsic properties and the rule violation itself – what Justice Jackson might have called the “harm to authority.”¹⁸

The relationship between strict liability and convention can also help explain why strict liability crimes involve an attenuated role for mental states. To the extent that an act’s criminality depends on convention, there is likely to be an element of arbitrariness. Why, for example, is 16 rather than 15 regarded as a critical age for sexual consent?¹⁹ How close must a chemical be to a waterway before it becomes a serious risk? This arbitrariness may make *knowledge* of meeting the threshold or satisfying the contingency (and thus of engaging in a criminal act) less likely in many cases, despite some knowledge of being engaged in an activity with the potential to cause harm. Dumping a chemical a few feet outside the recognized zone, for example, may be regarded as only slightly less harmful than dumping the chemical just inside the zone. Yet crossing the threshold to illegal status will make the act wrong not just by an incremental increase in harm, but by virtue of having violated a prohibition. For mens rea crimes, in contrast, harm may track legal status more closely: taking something that doesn’t belong to you is both wrong and illegal; not doing so is neither.

In light of these considerations, we can revisit our specific crimes. Reckless driving, seducing a minor, and minor in possession – all mens rea crimes – also involve a potentially arbitrary threshold or contingency. And in fact, in Experiment 2, reckless driving had the greatest drop in moral censure after the statute change of any mens rea crime, while seducing a minor had the second greatest drop in moral censure and the highest for fines and jail time of any mens rea

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crime (see Figure 3 and Appendix B). Minor in possession of alcohol, another mens rea crime that is contingent on an arbitrary threshold, had the third greatest reduction in moral censure and a complete erasure of fines. In Experiment 3, minor in possession was also judged the second most arbitrary crime. On the other hand, the strict liability crimes of incest and unregistered firearm showed the smallest drop in moral censure in response to a statute change, and both arguably lack an arbitrary threshold beyond which they become legal.²⁰

Considering these “exceptions to the rule” helps make a valuable point. We don’t mean to suggest that strict liability crimes form a special psychological kind, or that they have clear-cut necessary and sufficient conditions. Rather, a variety of different factors that come in degrees may be more likely to be found in strict liability crimes, and these features can potentially help explain their legal origins as well as the way they’re evaluated by both experts and laypeople. The surprise, perhaps, is that the strict liability designation has *any* counterpart in intuitive moral judgments; that the match is imperfect is to be expected, especially given the recognized heterogeneity of strict liability crimes within the law (Levenson, 1992; Sayre, 1933). One lingering concern, however, may be that our findings reflect American citizens’ knowledge of their own legal system, and not their untutored moral intuitions. Arguing against this possibility, an additional study confirmed that participants sampled from the same population as that in our studies were no more likely to think that knowledge of violating a crime was required for the conviction of our mens rea crimes than of our strict liability crimes.²¹

Implications for Moral Psychology

The lessons of our findings for the psychology of moral judgment are potentially quite deep. While the distinction between moral wrongs that depend on rules and those that do not has already been recognized in moral psychology (Nucci & Turiel, 2009; Turiel, 2008), it is typically

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treated as a demarcation criterion for moral as opposed to conventional violations, or by some scholars, as a reflection of the extent to which an act elicits an affective response (Nichols, 2002). Our findings instead suggest that potentially conventional or arbitrary elements in moral rules can influence the relative importance of mental states and the way in which punishment scales with harm and negative affect. One prediction, for example, is that mental states will be less influential in judging and punishing perpetrators of conventional violations (e.g., wearing pajamas to school) than of moral violations (e.g., hitting a classmate), and correspondingly, that explanations that appeal to bad information or deception will be seen as less mitigating for conventional violations than for moral violations. In ongoing research, this precisely what we find (Giffin & Lombrozo, 2015).

Our studies also bear on more general questions about the role of mental states and explanations in moral and legal judgment. Consistent with many prior results, we found that mental states matter (e.g., Cushman, 2011, Knobe, 2003). Overall, participants judged actors more harshly when the actors knew the relevant facts that made their acts illegal. However, the relative importance of mental states was not uniform. Not only was there a weaker role for knowledge in strict liability cases in Experiments 1 and S1, but also, in Experiment 1, across the *knowledge* and *no information* conditions for moral (as opposed to public welfare) offenses. We further found evidence that offering an *explanation* for an actor's mental states can be more mitigating than the mere absence of knowledge. Specifically, Experiments 1 and S1 found that *no information* participants gave significantly higher ratings on every dependent measure than either of the conditions that offered explanations for false beliefs: *bad information* or *deception*. Experiment S1 also found that deception was more mitigating than bad information. Our studies thus go beyond prior work about the importance of knowledge and intent by showing that while

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mental states are undeniably important, *explanations* for those mental states play an additional role.

Implications for the Law

Finding that the legal category of strict liability mirrors a cognitive distinction is exciting, but also potentially surprising: some of strict liability's most vocal criticism is rooted in the belief that defendants' mental states *should* and *would* have an effect on their legal outcomes, were their mental states required for prosecution or permitted in defense. That is, there's often an implicit assumption that jurors care about a defendant's knowledge or intent, and that presenting evidence for the absence of either would mitigate a defendant's penalty in strict liability cases. For instance, Justice Jackson in *Morrisette* said:

“The contention that an injury can amount to a crime only when inflicted by intention is no provincial or transient notion. It is as universal and persistent in mature systems of law as belief in freedom of the human will and a consequent ability and duty of the normal individual to choose between good and evil.” (*US v. Morrisette*, 1952, p. 250).

This is the crux of what many lawyers and scholars find problematic about strict liability. We found, however, that our participants' judgments were surprisingly consistent with the law, finding knowledge less relevant for strict liability crimes than for other crimes. We are not arguing that mental states play *no* role for strict liability crimes, but our results do suggest that the (putative) counterintuitiveness of this aspect of strict liability has been overstated, and might not be the most compelling basis for arguments by its opponents.

We were also surprised to find no evidence that – compared to mens rea crimes – punishment in strict liability cases is more heavily motivated by deterrence than by retribution.

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Given that utilitarian justifications for strict liability are (in our view) among the most compelling, it's perhaps troubling that we didn't find evidence for this line of thought among our respondents. This could be because we considered the crimes of individual citizens: if it's not reasonable to expect the average person to be apprised of potentially arbitrary aspects of the law, it's hard to see how punishment (for a crime one doesn't know one is committing!) could be deterring. Deterrence and other utilitarian goals may therefore play a larger role for strict liability torts, which arise – for example – when corporations engage in the inherently hazardous activity of using, storing, or transporting dynamite, radioactive materials, or other hazardous chemicals. If people regard corporations as more responsible than individuals for avoiding ignorance or false information regarding the legal consequences of their actions, then we may well find a greater role for deterrence in some instances of strict liability torts.

Limitations and Future Directions

One major concern with the present research could be its lack of ecological validity. Certainly, our participants were making judgments in a much less formal and demanding environment than actual jurors judging a real case. Our participants were also making decisions alone, without group deliberation, and using less information than would be available at trial. However, these limitations may not be critical to the central aim of the present research, which was to determine whether laypeople's intuitive moral judgments discriminate between strict liability and mens rea crimes in the absence of specific instructions to do so. Moreover, our findings shed light on how these categories were formed and what kinds of information and arguments are likely to be persuasive when arguing one kind of case versus another. Our results support the idea that the relative arbitrariness of a crime, and therefore its status as *malum prohibitum*, is intuitively recognized and influences judgments.

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Another concern could be the number of participants who failed our attention check questions. Using an Internet sample necessitates stringent attention checks, as participants cannot be monitored as they would be in a lab. If not for these multiple attention checks, it would be difficult for us to conclude that participants had actually absorbed the information we manipulated. Despite employing multiple comprehension and attention checks, our exclusion rates were comparable to those for other studies run on Mechanical Turk (e.g., Downs, Holbrook, & Sheng, 2010). One advantage of using a Mechanical Turk sample is that it is more representative of a jury than a sample of university undergraduates. That said, it would certainly be valuable to extent this line of research to jury-eligible participants who engage in deliberation over more detailed and realistic cases.

Conclusion

In sum, our studies are the first (to our knowledge) to relate the strict liability designation to laypeople's intuitive moral judgments. We find that strict liability and mens rea crimes differ in two potentially related ways: mens rea crimes are more sensitive to the presence or absence of relevant knowledge, but strict liability crimes are more contingent on the presence of a rule. Our studies suggest that people find strict liability crimes to be more arbitrary and *malum prohibitum* while mens rea crimes appear to be, to a greater extent, *malum in se*. This is good news for those, like Justice Holmes, who believe that the law should reflect community standards, but it may still be troubling for those who believe the law should maintain the highest standard of justice, even when the community does not demand it.

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End Notes

¹ Some states do allow the defense of “reasonable mistake” for strict liability crimes, but evidence of mens rea is still not a required element of the offense, as it would be in traditional crimes. We use this formal definition of strict liability throughout the paper.

² For the latter point, see footnote 20, where we report the results of an additional experiment in which we ask participants to indicate whether mental states are relevant to the prosecution of all crimes tested.

³ Even numbers were used in each condition to help match variance across groups and to ensure that figures would not be misleading (by, for instance, involving bars that represented differences in the proportion or cases involving purity violations in addition to a variable of interest, such as legal category). To achieve even cells, the earliest participants in each condition were excluded until all conditions were even. Tests run including all participants produced the same patterns of significance.

⁴ The strict liability component of this crime was whether the customer was a minor; the underlying offense of selling narcotics is a mens rea crime.

⁵ We did not ask for a determination of guilt because we stipulated in the vignettes that the actor’s actions constituted the corresponding crime. We did this to ensure that participants gave their ratings based on commission of a crime in all cases; we did not want participants to vary in whether they believed the act constituted a crime. Thus, asking participants about the defendant’s guilt would be more a measure of reading comprehension or jury nullification than guilt per se. It is fair to note that during sentencing, when punishment would be decided upon, all mitigating information would be admissible. However, our study seeks to determine people’s opinions of and intuitions about these legal categories, not to approximate their actual trial verdicts.

⁶ These open-ended justifications were not coded or included in the present research; they are currently being analyzed as part of a complementary project.

⁷ We did not analyze these data for the present study.

⁸ Not surprisingly, we did find that moral crimes elicited more disgust than public welfare crimes ($M = 3.70$, $SD = 2.03$ vs. $M = 2.91$, $SD = 2.11$), $F(1,380) = 14.25$, $p < .000$, $\eta_p^2 = .036$.

⁹ It’s instructive to compare participants in the *no information* condition who indicated that the actor did have the relevant knowledge (call them “yes knowledge” or YK participants) to those in the *knowledge* condition, and participants in the *no information* condition who indicated that the actor did not have the relevant knowledge (call them “no knowledge” or NK participants) to those in the *bad information* condition. Setting aside the fact that YK and NK participants had more uncertainty about the actor’s knowledge state, these pairs of conditions match in the knowledge attributed to the actor by the participant. In fact, additional tests revealed no significant differences between YK participants and participants in the *knowledge* condition for any of our dependent measures. However, NK participants provided significantly higher moral censure ratings than *bad information* participants, $t(156) = 2.69$, $p < .008$, $d = .43$, and *deception* participants, $t(156) = 3.66$, $p < .000$, $d = .59$. We observed the same pattern for punishment ratings, $t(156) = 2.02$, $p < .046$, $d = .32$; $t(156) = 2.68$, $p < .008$, $d = .43$. This suggests that the explanation provided for the absence of knowledge in the *bad information* and *deception* conditions had a mitigating effect, above and beyond the mere absence of knowledge it entailed.

¹⁰ In the case of strict liability crimes which are not well represented by the FBI statistics, we also consulted working public defenders and district attorneys. We also pretested the crimes to ensure that we found crimes that represented the category but were not rated too disparately in harm, anger, or disgust. The resulting eight crimes did vary along these dimensions, but less than those in Experiment 1.

¹¹ These crimes do appear more regulatory in nature, but all still carry potential criminal penalties and represented the next most commonly charged crimes. Note, though, that “common” is a relative term; the crimes this low on the list were not commonly charged in absolute terms.

¹² The uneven numbers are due to the fact that the strict liability crimes of speeding and statutory rape were used in all experiments while all the mens rea crimes from Experiment 1 were all replaced in experiment reported in Appendix C.

¹³ One concern with including this statute change as a within-subjects factor is that participants’ initial ratings (before the statute change) could anchor or otherwise influence their second ratings (after the statute change). We were not overly worried by this possibility because our key hypothesis (H6) concerned a *differential* drop in ratings across strict liability versus mens rea crimes, not the values of the ratings themselves. But if anything, this methodological choice works against our hypotheses.

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¹⁴ We performed a series of independent samples t-tests comparing initial ratings for moral censure, punishment, disgust, anger, and harm as a function of legal category. These analyses revealed significantly higher fines for strict liability crimes ($M = 6740.13$, $SD = 16347.92$) than for mens rea crimes ($M = 3678.99$, $SD = 11415.07$), $t(310) = 2.12$, $p < .034$, $d = .24$, as well as significantly greater harm associated with strict liability ($M = 2.36$, $SD = 1.22$) than mens rea crimes ($M = 2.05$, $SD = 1.07$), $t(358) = 2.69$, $p < .008$, $d = .28$. Along other dimensions, the two classes of crimes were well matched and did not differ significantly.

¹⁵ It is reasonable to ask why our participants gave out *any* jail time or fines after the statute change: once the action is legal, aren't both irrelevant? Importantly, we asked how much jail time or fines the actor *should* receive, not how much was legally sanctioned. Thus, participants' persistence in punishing the actor likely reflects their continued disapproval of the action.

¹⁶ As in Experiment 2, the potential influence of initial ratings on subsequent ratings was not a major concern: we were not interested in the absolute ratings themselves, but in differential changes across mens rea versus strict liability crimes.

¹⁷ We performed a series of independent samples t-tests comparing the initial ratings, given after the participant read the *bad information* version of a crime, as a function of legal category. These analyses revealed significantly higher fines for strict liability crimes ($M = 9065.53$, $SD = 20124.09$) than for mens rea crimes ($M = 3400.95$, $SD = 11496.49$), $t(272) = 3.36$, $p < .001$, $d = .35$. Jail time was also significantly higher for strict liability ($M = 1.64$, $SD = 4.10$) as opposed to mens rea crimes ($M = .573$, $SD = 2.36$), $t(273) = 3.08$, $p < .002$, $d = .32$. Moral censure was not significantly different between the two categories for this initial rating.

¹⁸ Supporting this idea, research has indicated that violating norms, even if the norm is contingent on context or lacks moral content, is seen as an immoral act, a violation of the societal order which in itself deserves punishment (Gilbert & Spellman, 2014).

¹⁹ Statutory rape is an especially clear case of the arbitrariness of these boundaries, as the age of consent varies from state to state.

²⁰ One could argue that the percentage of DNA that two individuals must share for a sexual act to be considered incest is an arbitrary threshold; we doubt, however, that people conceptualize incest in this way.

²¹ A potential concern is that rather than tapping into intuitive moral and legal judgment, what we actually tested was American citizens' knowledge of their own legal system. While we never told participants which crimes were strict liability or when they should take mental states into account, they may have been familiar enough with our crimes to know – for example – that burglary requires the knowledge that we varied while speeding does not. To address this concern, we ran an additional experiment with the same population. Participants ($N = 50$) were asked to indicate whether they thought knowledge was required for conviction of each crime. For example, for speeding, participants indicated “true” or “false” for the following: “Speeding: Defendant must know how fast they were driving in order to be convicted of this crime. In other words, the defendant can't be convicted (or punishment will decrease) if it turns out that the defendant did not know the speed they were driving.” The question corresponding to each crime referred to the relevant knowledge, specified in Tables 1 and 2 and footnote 8. We found no significant difference ($p = .232$) in the rate at which participants responded true versus false across strict liability crimes versus mens rea crimes. This finding indicates that pre-existing knowledge of the legal categories of our crimes did not drive our results, and further suggests that our findings speak to an aspect of cognition that is not merely confined to those with exposure to our legal system.