



## ARTICLE

## Attempted Justice: Misunderstanding and Bias in Psychological Constructions of Criminal Attempt

Avani Mehta Sood\*

**Abstract.** How do jurors construe and apply facts and law to decide the point at which a defendant's thoughts and actions cross the line from being legally innocent to criminal? And under what doctrinal circumstances are such lay constructions of criminality

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\* Assistant Professor of Law, University of California, Berkeley, School of Law; Ph.D. (Psychology), Princeton University; J.D., Yale Law School.

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vulnerable to legal misunderstanding and bias? Although these are high-stakes questions, the black box of the jury room leaves the legal system largely in the dark about the answers.

Shining an empirical light on this domain, this Article employs tools of psychology to investigate how lay decisionmakers construe and apply legal standards for criminal attempt—a doctrine that imposes liability when a defendant intends and initiates a crime but does not successfully complete it. There are two dominant standards for the act element of attempt, but both are vague and ambiguous in defining the point at which liability attaches. Jurors are thus implicitly required to determine not only whether the defendant’s conduct has met the threshold for criminal attempt, but also where that legal threshold lies. The fundamental question of how lay decisionmakers without legal training are likely to execute this cognitively challenging task has never been empirically tested.

To fill this practical and methodological gap, I present the results of three original experimental studies on lay constructions of attempt law. My findings uncover striking disconnects between legal expectations and lay determinations of criminal attempt. Contrary to legislative design, the common law’s theoretically more defense-friendly “proximity” test (which draws the line of attempt liability closer to completion of the intended crime) emerges as more prosecution-friendly in lay applications than the Model Penal Code’s “substantial step” test (which theoretically seeks to expand attempt liability). The proximity test also appears to be more susceptible to bidirectional biases that lead to discriminatory legal outcomes.

Drawing upon psychology theory to explain these findings, I propose that the linguistic framing of the proximity test may unconsciously activate a sense of criminal “nearness” that anchors decisionmakers to harsher outcomes. The language of the proximity test may also be more likely to invoke a sense of threat, which can activate stereotypes that bias decisionmaking based on legally extrinsic factors, such as the defendant’s implied religion and the type of crime he is charged with attempting.

This Article’s findings challenge the legal community’s established understandings of attempt law, and also speak to lay constructions of criminal liability more broadly by providing new insights into how jurors may interpret the act requirement of a criminal offense in light of its mental state requirement. Furthermore, by illustrating how lay-legal disconnects can inadvertently undermine legislative intent and how the language of the law itself can trigger unfair prejudice, the results bear implications for any area of law in which jurors are tasked with applying opaquely defined legal standards.

Having empirically identified potential doctrinal and cognitive entry points for legal misunderstanding and bias in lay adjudication, I then suggest some novel steps that the legal system could consider taking to address these risks. My proposals entail rethinking how legislatures formulate legal standards, how courts convey these standards to jurors, and how jurors deliver their verdicts. I conclude by highlighting some key psychological and doctrinal directions for future research. Empirically unveiling the psychology of how lay decisionmakers construct legal liability, and drawing upon these insights to help jurors better understand the law, could unfurl promising new pathways toward more informed and fair decisionmaking in the justice system.

**Table of Contents**

Introduction.....	597
I. Legal and Psychological Framework .....	601
A. The Act of Attempt.....	602
B. Prior Experimental Inquiries.....	605
C. Psychological Foundations.....	606
1. Legal opacity and misunderstanding.....	608
2. Legal opacity and bias.....	609
D. Investigating Islamophobia.....	611
II. The Experiments.....	614
A. Study 1: The Interplay of Facts and Law.....	616
1. Methodology.....	616
a. Case facts: innocent, ambiguous, and guilty.....	616
b. Law: substantial step or proximity .....	617
2. Results.....	618
a. Effect of case facts.....	618
b. Interactions of facts and law .....	619
B. Study 2: Varying Crimes and Real Instructions.....	621
1. Methodology.....	622
a. Attempted crime: terrorism, arson, or trespass.....	622
b. Law: substantial step or proximity .....	624
2. Results.....	625
a. Effect of crime.....	625
b. Replication of fact-law interaction .....	626
C. Study 3: Michael vs. Mohamed—A Criminal by Any Other Name? .....	627
1. Methodology.....	628
a. Law and crime.....	628
b. Religion: Muslim, Christian, or control.....	628
2. Study 3a results .....	629
a. Interactions of law and religion .....	629
b. The centrality of intent .....	634
3. Study 3b results.....	635
a. Effect of religion .....	635
b. Interactions of law and religion .....	636
D. Summary of Key Empirical Findings.....	639

III. Explanations and Mechanisms.....	640
A. Lay-Legal (Mis)constructions .....	640
B. Problems of Proximity.....	642
1. Priming closeness: an anchoring effect .....	643
2. Priming peril: bidirectional biases.....	645
a. The biasing trajectory of threat .....	645
b. The benefit of the doubt.....	649
C. The Action of Intent.....	651
1. Act-intent entanglements.....	651
2. Intent as a vehicle for discrimination.....	654
IV. Paths Forward.....	655
A. Potential Reforms.....	655
1. Conveying the law.....	656
a. “Comparative” jury instructions .....	656
b. Special verdict interrogatories.....	658
2. Crafting the law.....	661
a. Legislative reconstruction.....	661
b. The vagaries of vagueness .....	663
3. Implications for practice, prosecution, and plea bargaining.....	664
4. Arguable risks of legal clarification .....	666
B. Future Directions.....	667
1. Effects of group deliberation.....	667
2. Delineating and disentangling variables .....	669
3. Further doctrinal applications.....	670
a. Testing rape laws.....	670
b. Extensions to civil law .....	672
Conclusion.....	675
Appendix A .....	676
Appendix B.....	679
Appendix C .....	685

## Introduction

*People v. Rizzo*, perhaps the most famous criminal attempt case in American history, involved Charles Rizzo's foiled plan to rob his father's construction company.<sup>1</sup> One January 1927 day in the Bronx, Rizzo and three others equipped themselves with guns and drove around in a stolen car, looking for the man carrying the company's payroll.<sup>2</sup> However, police officers intercepted Rizzo and his crew before they could find their target.<sup>3</sup>

A jury found Rizzo guilty of attempted robbery, but the New York Court of Appeals reversed the conviction.<sup>4</sup> Although the facts established at trial left "no doubt that [Rizzo] had the intention to commit robbery, if he got the chance,"<sup>5</sup> the appellate court held that he never came within "dangerous proximity" of actually committing the crime—New York's legal test for when actions trigger attempt liability<sup>6</sup>—because he never "found or reached the presence of the person [he] intended to rob."<sup>7</sup>

Forty years after *Rizzo*, the influential Model Penal Code (MPC) drafted by the American Law Institute (ALI) sought to broaden attempt liability by setting the threshold for guilt at an earlier stage: as soon as the defendant takes a "substantial step" toward committing the intended crime.<sup>8</sup> The MPC's now-majority test is therefore generally understood to be more prosecution friendly than the common law's proximity test under which Rizzo was acquitted.<sup>9</sup> In

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1. See 158 N.E. 888, 888 (N.Y. 1927); see also Robert Weisberg, *The Story of Rizzo: The Shifting Landscape of Attempt*, in CRIMINAL LAW STORIES 329, 329-32 (Donna Coker & Robert Weisberg eds., 2013).

2. See *Rizzo*, 158 N.E. at 888; see also *Another Robbery Is Foiled in Bronx*, N.Y. TIMES, Jan. 15, 1927, at 17.

3. See *Rizzo*, 158 N.E. at 888-89.

4. See *id.* at 888, 890.

5. *Id.* at 888.

6. See *id.* at 889 (quoting *Hyde v. United States*, 225 U.S. 347, 388 (1912) (Holmes, J., dissenting)); see also *id.* (interpreting proximity to mean that the defendant's actions "must come or advance very near to the accomplishment of the intended crime").

7. *Id.* at 889-90.

8. See MODEL PENAL CODE § 5.01(c) (AM. LAW INST., Official Draft and Explanatory Notes 1985); see also 1 MODEL PENAL CODE & COMMENTARIES art. 5 intro. at 295 (AM. LAW INST., Official Draft and Revised Comments 1985) (noting that one of the "major results" of the MPC was to "extend the criminality of attempts . . . by drawing the line between attempt and noncriminal preparation further away from the final act" and requiring only "an overt act strongly corroborative of [criminal] purpose").

9. See Herbert Wechsler et al., *The Treatment of Inchoate Crimes in the Model Penal Code of the American Law Institute: Attempt, Solicitation, and Conspiracy*, 61 COLUM. L. REV. 571, 593-95 (1961) ("[T]he requirement of proving a substantial step generally will prove less of a hurdle for the prosecution . . ."); Weisberg, *supra* note 1, at 331 ("On the whole, the movement of recent decades has been to move the line somewhat earlier in time to make conviction easier, and . . . the Model Penal Code (MPC) formulation exemplifies

*footnote continued on next page*

fact, law professors often use *Rizzo* to illustrate the critical difference between these two legal standards: “And how would Charles Rizzo . . . have fared under the MPC test? We can safely say [he] would not have fared well.”<sup>10</sup> Law school graduates then carry this comparative understanding of attempt doctrine with them into legal practice as prosecutors, defense attorneys, judges, and legislators—making a host of consequential decisions based on their shared conceptions of the law.

But does this general legal understanding correspond to how jurors—lay members of the public who most often do *not* have any legal training—operationalize the legal tests for criminal attempt? After all, a jury initially found Rizzo guilty of attempt even under the ostensibly more defense-friendly proximity test. Could it be that lawmakers’ intentions are lost in translation when lay adjudicators construe and apply attempt law?

This Article is the first to empirically investigate this critical question. For over a century, leading legal scholars have devoted significant attention to the evolving doctrine of criminal attempt, with research inquiries providing foundational insights about the parameters of the offense<sup>11</sup> as well as analyses of thorny legal issues that the doctrine raises.<sup>12</sup> However, the existing body of scholarship generally reflects a more theoretical and abstract approach, as opposed to generating and analyzing hard data about how the legal standards for attempt are likely to function in the hands of jurors.

To begin filling this practical and methodological gap, this Article draws upon tools of psychology to experimentally explore lay “constructions” of criminal attempt: how jurors are likely to operationalize facts and law to

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that trend.”); *id.* at 366 (“New York’s highest court in *Rizzo* took a distinctly narrow, and pro-defendant, view of attempt law.”).

10. Weisberg, *supra* note 1, at 370; *see id.* at 331 (noting that *Rizzo* “appears in many casebooks because it so piquantly illustrates the significance of the choice among” legal tests for attempt liability); *see also* MODEL PENAL CODE § 5.01(2)(a) (specifically including “lying in wait, searching for or following the contemplated victim of the crime” as conduct that “shall not be held insufficient as a matter of law” to constitute a substantial step if “strongly corroborative of the actor’s criminal purpose”).
11. *See generally, e.g.*, Joseph H. Beale, Jr., *Criminal Attempts*, 16 HARV. L. REV. 491 (1903); Walter Wheeler Cook, *Act, Intention, and Motive in the Criminal Law*, 26 YALE L.J. 645 (1917); Jerome Hall, *Criminal Attempt—A Study of Foundations of Criminal Liability*, 49 YALE L.J. 789 (1940); Edwin R. Keedy, *Criminal Attempts at Common Law*, 102 U. PA. L. REV. 464 (1954); Francis Bowes Sayre, *Criminal Attempts*, 41 HARV. L. REV. 821 (1928); John S. Strahorn, Jr., *Preparation for Crime as a Criminal Attempt*, 1 WASH. & LEE L. REV. 1 (1939); Gideon Yaffe, *Criminal Attempts*, 124 YALE L.J. 92 (2014).
12. *See generally, e.g.*, Jerome B. Elkind, *Impossibility in Criminal Attempts: A Theorist’s Headache*, 54 VA. L. REV. 20 (1968) (examining the impossibility defense in criminal attempt cases); Paul R. Hoeber, *The Abandonment Defense to Criminal Attempt and Other Problems of Temporal Individuation*, 74 CALIF. L. REV. 377 (1986) (arguing in support of the abandonment defense).

determine when a defendant's thoughts and actions cross the line from being legally innocent to criminal. Attempt law offers a promising legal arena for studying psychological constructions of criminality due to the definitional challenges the doctrine presents for lawmakers and factfinders alike. States have grappled with different legal standards for defining the "act" element of a criminal attempt, and ultimately both the dominant "substantial step" and "proximity" tests use vague and ambiguous language to define the moment when criminal liability attaches.<sup>13</sup> Jurors tasked with applying these opaquely defined legal standards therefore bear the onus of deciding not just *whether* the defendant's actions crossed the line of criminality, but also exactly *where* that line lies. As a result, and contrary to standard legal protocol,<sup>14</sup> jurors in attempt cases effectively become arbiters of not only the facts but also the law.

This Article empirically explores two potential risks of implicitly assigning untrained lay decisionmakers this cognitively demanding task: (1) legal misunderstanding—lay interpretations of the law that are inconsistent with legislative intent; and (2) biased outcomes—judgments that are unfairly prejudiced by legally irrelevant factors. The experiments presented here seek to identify when these risks are likely to arise, in order to move toward addressing them.

As foreshadowed by the discrepancy between the jury's verdict and the appellate court's reversal in *Rizzo*, this Article's studies uncover striking divergences between lay and legal understandings of attempt law—which in some circumstances appear to run in diametrically opposite directions. The experiments' results further reveal that the law itself may in some instances trigger biases in lay adjudication. Beyond the direct implications that these findings hold for the doctrine of criminal attempt, some of them also speak to jury determinations of criminality and legal liability more broadly.

It bears noting upfront that my use of the terms "misunderstanding" and "bias" to describe ways in which lay judgments diverge from legal expectations is not intended to imply that the lay decisionmakers are at fault, or that jury discretion is a problem unto itself. On the contrary, discretion is an important

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13. See Michael T. Cahill, *Attempt, Reckless Homicide, and the Design of Criminal Law*, 78 U. COLO. L. REV. 879, 909 (2007); *infra* Part I.A.

14. See, e.g., *Sparf v. United States*, 156 U.S. 51, 102 (1895) ("Upon the court rests the responsibility of declaring the law, upon the jury, the responsibility of applying the law so declared to the facts as they, upon their conscience, believe them to be."). Formal recognition of jurors as the deciders of both facts and law exists in only a few states that have specifically enacted constitutional amendments to this effect. See, e.g., IND. CONST. art. I, § 19 ("In all criminal cases whatever, the jury shall have the right to determine the law and the facts."); MD. CONST. declaration of rights, art. 23 ("In the trial of all criminal cases, the Jury shall be the Judges of Law, as well as of fact . . .").

and powerful attribute of the jury's role in the criminal justice system,<sup>15</sup> and legal vagueness can arguably serve a valuable role in some circumstances.<sup>16</sup> But when jurors do not understand the law as intended, criminal defendants' constitutional rights to due process and nondiscriminatory adjudication—as well as the jury's capacity to adhere to (or nullify) the given law in an informed manner—could be compromised.

To address these risks, I draw upon my experimental findings to suggest some concrete steps that the legal system could take toward improving the accuracy and fairness of lay adjudication. My proposed interventions, which are offered here as directions for future research, invite scholars, courts, policymakers, and practitioners to reconsider the conventional ways in which legal standards are formulated and conveyed to jurors, as well as the process by which jurors deliver their verdicts.

This Article proceeds in four Parts. Part I presents the legal and socio-cognitive frameworks within which I investigate lay constructions of criminality: the doctrine of criminal attempt and the psychological risks that its legal opacity may engender. Part II, the empirical heart of this Article, presents the methodology and quantitative results of three original experimental studies that demonstrate legal misunderstandings and biases in lay applications of attempt laws. Part III proposes potential mechanisms to explain the experiments' findings, drawing upon psychology theory and analyses of the lay decisionmakers' written descriptions of how they construed the laws. Part IV suggests ways in which the legal system and its repeat players could build upon and revise existing practices to address the types of lay-legal disconnects that this research brings to light. The final Part also highlights some additional socio-psychological variables and opaquely defined legal

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15. See Rachel E. Barkow, *Recharging the Jury: The Criminal Jury's Constitutional Role in an Era of Mandatory Sentencing*, 152 U. PA. L. REV. 33, 38 (2003); Valerie P. Hans & Neil Vidmar, *The Verdict on Juries*, 91 JUDICATURE 226, 227 (2008).

16. See, e.g., Meir Dan-Cohen, *Decision Rules and Conduct Rules: On Acoustic Separation in Criminal Law*, 97 HARV. L. REV. 625, 639-40, 648, 665-67 (1984) (highlighting the benefits of “the vague and open-ended quality” of some criminal law doctrines in regard to their impact on public behavior, but basing this argument on the distinction between “conduct rules” addressed to the public versus “decision rules” addressed to decisionmaking officials who *do* have clarity as to the laws they apply); Seana Valentine Shiffrin, Essay, *Inducing Moral Deliberation: On the Occasional Virtues of Fog*, 123 HARV. L. REV. 1214, 1216, 1218 (2010) (providing “moral and democratic reasons to champion [the] haziness” of legal standards, but “presuppos[ing] that citizens . . . know the legal standard and attempt to follow it where relevant” and “apply it . . . when they engage in the work of juries”); William J. Stuntz, *Unequal Justice*, 121 HARV. L. REV. 1969, 1974 (2008) (advocating for more vaguely defined criminal prohibitions “so jurors can exercise judgment instead of rubber-stamping prosecutors' charging decisions”). *But see infra* Part IV.A.2.b (arguing that vagueness in criminal law doctrines may actually disadvantage defendants).

doctrines—across both criminal and civil law—that are ripe for study, to more broadly identify and remedy misalignments between legal assumptions and the psychological realities of lay adjudication.

## I. Legal and Psychological Framework

Legal standards for crimes vary in how much interpretive leeway they grant jurors in determining thresholds for liability.<sup>17</sup> At the least-defined end of the spectrum, the standards for offenses such as loitering have been held unconstitutional under the “void for vagueness” doctrine, for failing to give citizens enough notice as to what behavior is prohibited and for affording nonlegislative decisionmakers *too much* discretion in determining what constitutes the crime.<sup>18</sup> At the other end of the spectrum, an increasing number of criminal laws—such as those prohibiting possession of certain weapons, drugs, or burglary tools—significantly *curtail* the need or ability of jurors to exert decisionmaking discretion, by categorically enumerating the standards with such specificity that they can be applied almost mechanically to the facts of a case.<sup>19</sup>

The crime of attempt—which leans toward the more open-ended side of this spectrum—provides a fitting doctrinal context for investigating both legislative and lay constructions of criminality due to its definitional malleability and complexities. The mens rea (“guilty mind”) element of criminal attempt is generally consistent across jurisdictions: The prosecution must prove beyond a reasonable doubt that the defendant *intended* to commit the allegedly attempted crime.<sup>20</sup> The quest for a clear and consistent

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17. See Lawrence M. Solan, *Jurors as Statutory Interpreters*, 78 CHI.-KENT L. REV. 1281, 1284 (2003).

18. See *City of Chicago v. Morales*, 527 U.S. 41, 46-47 (1999); *id.* at 55-56, 60 (plurality opinion); see also Dan-Cohen, *supra* note 16, at 658.

19. See Markus Dirk Dubber, *Policing Possession: The War on Crime and the End of Criminal Law*, 91 J. CRIM. L. & CRIMINOLOGY 829, 858 (2001) (noting that “[v]irtually all defendants in a possession case . . . plead guilty” because “possession is easy to prove”); Jonathan Simon, Essay, *Uncommon Law: America’s Excessive Criminal Law & Our Common-Law Origins*, DAEDALUS, Summer 2014, at 62, 63 (“[T]he criteria of certain crimes have been redefined and refocused in order to make them more easily proven in court . . .”).

20. See WAYNE R. LAFAVE & AUSTIN W. SCOTT, JR., HANDBOOK ON CRIMINAL LAW § 59, at 428 (4th reprinted 1978); MODEL PENAL CODE § 5.01 explanatory note (AM. LAW INST., Official Draft and Explanatory Notes 1985). Only two states impose attempt liability for crimes that were unintentional: Arkansas permits convictions for attempted felony murder, see, e.g., *Clark v. State*, 282 S.W.3d 801, 804 (Ark. 2008), and Colorado permits convictions for attempted reckless manslaughter, see, e.g., *People v. Thomas*, 729 P.2d 972, 974 (Colo. 1986).

definition of the actus reus (“guilty act”) element of attempt, however, has been described as both “fascinating and . . . fruitless.”<sup>21</sup>

The actus reus requirement of a crime—with its “relative fixedness, its greater visibility and difficulty of fabrication”—usually builds upon the mens rea requirement to contribute “additional security and predictability by limiting the scope of the criminal law to those who have engaged in conduct that is itself objectively forbidden and objectively verifiable,”<sup>22</sup> but this is less true of criminal attempt. Any intentional crime can be attempted in a number of ways, leading to an “infinite variety” of possible attempt offenses.<sup>23</sup> Furthermore, legislatures have leeway to set attempt liability at any point of conduct between mere preparation for an intended crime and the moment just before the crime is completed. These broad parameters have led to much legal variation and vagueness across time and jurisdictions in defining the guilty act of attempt.

This Part provides a brief overview of legal standards for the act element of criminal attempt and the scarce published empirical research on this doctrine. It then presents an introduction to some general psychological understandings of lay decisionmaking in conditions of discretion and ambiguity, upon which this Article’s hypotheses are based.

#### A. The Act of Attempt

When attempt first emerged as a criminal offense in late eighteenth- to early nineteenth-century common law,<sup>24</sup> the threshold for the act requirement was very high: The “last act” test required that “the accused must have taken the last step which he was able to take along the road of his criminal intent.”<sup>25</sup> This standard essentially criminalized only “complete” but “imperfect” attempts—scenarios in which the defendant did “everything a reasonable person in the actor’s situation would judge necessary to produce the intended criminal

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21. See Strahorn, *supra* note 11, at 1.

22. Arnold N. Enker, *Impossibility in Criminal Attempts—Legality and the Legal Process*, 53 MINN. L. REV. 665, 688 (1969).

23. See LAFAYE & SCOTT, *supra* note 20, § 59, at 432.

24. See *R v. Higgins* (1801) 102 Eng. Rep. 269; 2 East 5 (upholding an indictment for attempted theft); *R v. Scofield* (1784) Cald. 397 (Eng.) (upholding a charge of attempted arson); see also Hall, *supra* note 11, at 806-10.

25. M.L. FRIEDLAND, *CASES AND MATERIALS ON CRIMINAL LAW AND PROCEDURE* 319 (5th ed. 1978); see *R v. Eagleton* (1855) 169 Eng. Rep. 826; Dears 515 (affirming a conviction of attempt to obtain money by false pretenses because a baker’s misrepresentation of the number of loaves he had given to the poor was the last step he needed to take before being reimbursed).

result,” but nonetheless failed to bring about the intended result due to an unanticipated factor outside his or her control.<sup>26</sup>

Most U.S. jurisdictions now criminally punish “incomplete” attempts as well<sup>27</sup>—“efforts to bring about the intended result where at least one necessary step remains undone.”<sup>28</sup> This calls for more discretionary decisionmaking. How close to “complete” does the incomplete attempt need to be for criminal liability to attach? Even as compared to other inchoate crimes like solicitation and conspiracy—in which there is “disclosure of the criminal design to someone else” and thereby a “natural line that is suggested by the situation, like utterance or agreement”<sup>29</sup>—an incomplete attempt lacks a clear demarcation of the point at which innocent conduct becomes criminal.

Do the resulting difficulties and inconsistencies in defining the legal standard for attempt trickle down to increased psychological challenges for the jurors who are ultimately tasked with applying the law? This Article’s studies investigate that question by testing lay applications of the two presently prevailing legal standards for the act requirement of criminal attempt: the “proximity” test and the “substantial step” test.<sup>30</sup>

The common law’s proximity test is currently the minority standard for criminal attempt, but prominent states—including Massachusetts, New York, and Texas—still employ this approach.<sup>31</sup> The statutes in these jurisdictions usually define liability as attaching when the defendant engages in conduct that *tends to effect*, albeit unsuccessfully, the commission of the attempted crime.<sup>32</sup> New York courts have interpreted this phrase as encompassing acts that come

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26. See David M. Adams, *The Problem of the Incomplete Attempt*, 24 SOC. THEORY & PRAC. 317, 318 (1998).

27. See CHARLES DOYLE, CONG. RESEARCH SERV., R42001, ATTEMPT: AN OVERVIEW OF FEDERAL CRIMINAL LAW 1 (2015).

28. Adams, *supra* note 26, at 318; see also MODEL PENAL CODE § 5.01(1)(a), (c) (AM. LAW INST., Official Draft and Explanatory Notes 1985).

29. 1 MODEL PENAL CODE & COMMENTARIES § 5.01 cmt. 1, at 298 (AM. LAW INST., Official Draft and Revised Comments 1985).

30. See DAVID CRUMP ET AL., CRIMINAL LAW: CASES, MATERIALS, AND LAWYERING STRATEGIES § 10.02, at 649 (3d ed. 2013); Audrey Rogers, *New Technology, Old Defenses: Internet Sting Operations and Attempt Liability*, 38 U. RICH. L. REV. 477, 490 (2004) (“The two most prevalent approaches are the proximity approach and the substantial step approach.”).

31. See MASS. GEN. LAWS ch. 274, § 6 (2018), *construed in* Commonwealth v. Bell, 917 N.E.2d 740, 746-48 (Mass. 2009), *abrogated in other part by* Commonwealth v. LaBrie, 46 N.E.3d 519 (Mass. 2016); N.Y. PENAL LAW § 110.00 (McKinney 2019); TEX. PENAL CODE ANN. § 15.01 (West 2017).

32. See, e.g., IOWA CODE § 29B.77 (2019); LA. STAT. ANN. § 14:27 (2018); NEV. REV. STAT. § 193.330 (2018); N.M. STAT. ANN. § 30-28-1 (West 2018); N.Y. PENAL LAW § 110.00; TEX. PENAL CODE ANN. § 15.01.

“dangerously close or very near to the completion of the intended crime.”<sup>33</sup> Variations of the proximity test include “physical proximity” and “dangerous proximity,” but all versions generally “ask[] how far the defendant was from completing an intended crime, rather than looking to how much the defendant had done in pursuit of a criminal intent.”<sup>34</sup> The proximity approach thus theoretically “precludes prosecution of attempters who were not very close to achieving their criminal goals.”<sup>35</sup>

In contrast, the MPC proposed the substantial step test to “extend the criminality of attempts”<sup>36</sup> by imposing liability when the defendant takes a substantial step toward an intended crime.<sup>37</sup> That “step” is generally defined as conduct “strongly corroborative of the actor’s criminal purpose.”<sup>38</sup> Scholars have observed that “any action taken by the defendant can serve as the actus reus of an attempt as long as, given the defendant’s beliefs about the state of the world, it would constitute a substantial step toward the completion of a crime.”<sup>39</sup> The MPC’s test—currently the standard for attempt among a majority of the states and in the federal system<sup>40</sup>—is thus theoretically more

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33. N.Y. State Unified Court Sys., Criminal Jury Instructions and Model Colloquies: Attempt to Commit a Crime; Penal Law § 110.00, at 1 (n.d.), <https://perma.cc/83GU-NLPB> [hereinafter New York Attempt Jury Instructions]; see also *People v. Rizzo*, 158 N.E. 888, 889 (N.Y. 1927).

34. See Michael R. Fishman, Note, *Defining Attempts: Mandujano’s Error*, 65 DUKE L.J. 345, 348-50 (2015).

35. See *id.* at 350.

36. 1 MODEL PENAL CODE & COMMENTARIES art. 5 intro. at 295 (AM. LAW INST., Official Draft and Revised Comments 1985).

37. See MODEL PENAL CODE § 5.01(1)(c) (AM. LAW INST., Official Draft and Explanatory Notes 1985).

38. See *id.* § 5.01(2).

39. John Hasnas, *Attempt, Preparation, and Harm: The Case of the Jealous Ex-Husband*, 9 OHIO ST. J. CRIM. L. 761, 765 (2012); see also Weisberg, *supra* note 1, at 368-69.

40. See, e.g., ALASKA STAT. § 11.31.100(a) (2018); ARK. CODE ANN. § 5-3-201 (2018); COLO. REV. STAT. § 18-2-101(1) (2018); CONN. GEN. STAT. § 53a-49 (2017); DEL. CODE ANN. tit. 11, § 531(2) (2018); GA. CODE ANN. § 16-4-1 (2018); HAW. REV. STAT. § 705-500(1)(b) (2018); 720 ILL. COMP. STAT. ANN. 5/8-4(a) (West 2018); IND. CODE § 35-41-5-1(a) (2017); KY. REV. STAT. ANN. § 506.010(1)(b) (West 2018); ME. STAT. tit. 17-A, § 152(1) (2018); MINN. STAT. § 609.17 subdiv. 1 (2018); MO. ANN. STAT. § 562.012(1) (West 2018); NEB. REV. STAT. § 28-201(1)(b), (2) (2018); N.H. REV. STAT. ANN. § 629:1(1) (2018); N.J. STAT. ANN. § 2C:5-1(a)(3) (West 2018); N.D. CENT. CODE § 12.1-06-01(1) (2017); OR. REV. STAT. § 161.405(1) (2017); 18 PA. STAT. AND CONS. STAT. ANN. § 901(a) (West 2018); TENN. CODE ANN. § 39-12-101(a)(3) (2018); UTAH CODE ANN. § 76-4-101 (LexisNexis 2018); WASH. REV. CODE § 9A.28.020(1) (2018); WYO. STAT. ANN. § 6-1-301(a)(i) (2018); see also Fishman, *supra* note 34, at 357 & n.111 (collecting cases from the federal courts of appeals).

prosecution friendly because it “criminalize[s] behavior much earlier in the chain of actions leading up to an offense” as compared to the proximity test.<sup>41</sup>

The drafters of the MPC also signaled another goal in their construction of the substantial step test: to move adjudication of attempt cases away from judges and toward jurors.<sup>42</sup> This pro-jury objective underlying the majority standard for criminal attempt makes it all the more critical to understand how lay decisionmakers actually construe the legal standards for attempt that they are tasked with applying.

### B. Prior Experimental Inquiries

Although criminal attempt is an empirically under-studied area of law, there is one important line of existing experimental psychology research on this doctrine. Two decades ago, as part of a broad inquiry into community views on criminal law, legal scholar Paul Robinson and social psychologist John Darley conducted experiments comparing lay intuitions about attempt liability with the different legal standards that jurisdictions employ for the offense.<sup>43</sup> Their studies presented lay decisionmakers with scenarios that varied how far an individual progressed toward committing a crime, asked the participants to identify the stage of conduct at which they thought guilt and punishment for criminal attempt *should* attach, and then compared those lay intuitions with where actual laws imposed liability.<sup>44</sup> Darley and Robinson found that lay intuitions about criminalizing attempt were better aligned with the more defense-friendly proximity test than with the majority substantial step test.<sup>45</sup> Later studies successfully replicated this finding across crimes that varied in severity, but again measured lay intuitions about attempt liability against legal, not lay, conceptions of attempt law.<sup>46</sup>

This Article moves the psychological inquiry in a new direction by investigating how lay decisionmakers themselves interpret and apply the legal

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41. See John M. Darley et al., *Community Standards for Defining Attempt: Inconsistencies with the Model Penal Code*, 39 AM. BEHAV. SCIENTIST 405, 406 (1996); *supra* note 9 and accompanying text.

42. See MODEL PENAL CODE § 5.01(2) (listing examples of substantial steps that “shall *not* be held insufficient as a matter of law”—meaning that they should be sent to the jury (emphasis added)); see also Weisberg, *supra* note 1, at 370 (“[O]nce the case does go to a properly instructed jury, the trial judge and any appellate court presumably should let a conviction of attempt stand so long as it meets the traditional sufficiency of evidence test.”).

43. See PAUL H. ROBINSON & JOHN M. DARLEY, JUSTICE, LIABILITY, AND BLAME: COMMUNITY VIEWS AND THE CRIMINAL LAW 14-28 (1995).

44. See *id.* at 8, 16-17.

45. See *id.* at 23, 27.

46. See Darley et al., *supra* note 41, at 417.

standards for attempt—the actual task of jurors in a criminal trial. If lay decisionmakers operationalize attempt laws as intended by the legislators who formulate them and the judges who convey them, they should theoretically be more likely to find a defendant guilty under the substantial step test than the proximity test when all else is held constant (even if, as Robinson and Darley found, lay intuitions about attempt liability are better aligned with the proximity test’s higher threshold). Furthermore, as with applications of any law, legally extrinsic information about the defendant and the alleged crime should not influence lay determinations of attempt liability. In reality, however, legal outcomes in cases of attempt may depend on how jurors construe the language of the opaque laws in light of both legally relevant and irrelevant factors.

### C. Psychological Foundations

This Article’s studies seek to both build upon and contribute new insights to a large body of psychology literature on jury decisionmaking more generally.<sup>47</sup> Researchers have proposed various theoretical models to explain how jurors evaluate evidence in legal cases,<sup>48</sup> but there are “gaps in our understanding of how the *law* influences jurors’ decision making.”<sup>49</sup> To gain insights in this regard, psychologist Vicki Smith conducted a series of experiments testing the extent to which jurors in criminal cases rely on the judge’s instructions on the law.<sup>50</sup> Using common crimes like assault, burglary, and kidnapping, Smith’s studies showed that mock jurors had their own preconceived “prototypes of crime categories,” which included legally inaccurate information that significantly influenced their verdicts.<sup>51</sup> Smith

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47. See generally, e.g., THE JURY SYSTEM: CONTEMPORARY SCHOLARSHIP (Valerie P. Hans ed., 2006) (reviewing empirical studies on jury selection, jury decisionmaking, and jury reform); NEIL VIDMAR & VALERIE P. HANS, AMERICAN JURIES: THE VERDICT (2007) (reviewing over fifty years of empirical work on civil and criminal juries); Martin F. Kaplan & Lynn E. Miller, *Reducing the Effects of Juror Bias*, 36 J. PERSONALITY & SOC. PSYCHOL. 1443 (1978) (testing a theoretical framework to reduce the effects of trait and situation biases in jurors’ judgments); Robert J. MacCoun, *Experimental Research on Jury Decision-Making*, 244 SCIENCE 1046 (1989) (reviewing the use of mock jury experiments to study jury decisionmaking).

48. See MacCoun, *supra* note 47, at 1046-47; Nancy Pennington & Reid Hastie, *Explaining Evidence: Tests of the Story Model for Juror Decision Making*, 62 J. PERSONALITY & SOC. PSYCHOL. 189, 190 (1992); Nancy Pennington & Reid Hastie, *Juror Decision-Making Models: The Generalization Gap*, 89 PSYCHOL. BULL. 246, 279-84 (1981).

49. Vicki L. Smith, *Prototypes in the Courtroom: Lay Representations of Legal Concepts*, 61 J. PERSONALITY & SOC. PSYCHOL. 857, 858 (1991) (emphasis added).

50. See *id.* at 857-59; Vicki L. Smith, *When Prior Knowledge and Law Collide: Helping Jurors Use the Law*, 17 LAW & HUM. BEHAV. 507, 508-09 (1993) [hereinafter Smith, *Prior Knowledge*].

51. See Smith, *supra* note 49, at 863, 869.

also found that lay decisionmakers did not set aside their mistaken prototypes even after receiving legal instructions that contradicted them, thus prioritizing their own conceptions of criminality over those of the law.<sup>52</sup>

Given that Smith's observations of lay-legal disconnects emerged in regard to crime categories with "boundaries" that are "relatively clearly specified,"<sup>53</sup> perhaps jury decisionmaking is at risk of being even more misaligned with legislative and judicial intent when a crime is *not* clearly defined. This challenge may further compound the general difficulties jurors have been shown to have in comprehending legal instructions.<sup>54</sup>

Meanwhile, with respect to the interaction of ambiguity and bias in lay adjudication, jury scholars Harry Kalven and Hans Zeisel postulated a "liberation hypothesis": that personal sentiments will be more likely to color jurors' judgments when the legally relevant evidence in a case is ambiguous, because "doubts about the evidence free the jury to follow sentiment."<sup>55</sup> However, the role of the *law* in triggering jury bias awaits empirical investigation.<sup>56</sup> Might lay decisionmakers be even more vulnerable to biasing factors when not just the evidence in a case but also the applicable legal standards are murky?

To pursue these inquiries, this Article's experimental studies focus on how lay decisionmakers construe and apply facts and law in circumstances of legal *opacity*, as defined below. Based on prior psychological understandings of lay decisionmaking, I hypothesize that the opaque legal standards for criminal attempt are likely to exacerbate two risks in jury adjudication: (1) misunderstandings of the law and (2) biased legal outcomes.

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52. See *id.* at 868-70.

53. See *id.* at 869.

54. See, e.g., Robert P. Charrow & Veda R. Charrow, *Making Legal Language Understandable: A Psycholinguistic Study of Jury Instructions*, 79 COLUM. L. REV. 1306, 1308-11 (1979); Shari Seidman Diamond et al., *The "Kettleful of Law" in Real Jury Deliberations: Successes, Failures, and Next Steps*, 106 NW. U. L. REV. 1537, 1557-86 (2012); Phoebe C. Ellsworth & Alan Reifman, *Juror Comprehension and Public Policy: Perceived Problems and Proposed Solutions*, 6 PSYCHOL. PUB. POL'Y & L. 788, 796 (2000).

55. See HARRY KALVEN, JR. & HANS ZEISEL, *THE AMERICAN JURY* 164-66 (1966); see also Robert J. MacCoun, *Biases in the Interpretation and Use of Research Results*, 49 ANN. REV. PSYCHOL. 259, 272-73 (1998); Robert J. MacCoun, *The Emergence of Extralegal Bias During Jury Deliberation*, 17 CRIM. JUST. & BEHAV. 303, 306 (1990).

56. See Smith, *supra* note 49, at 857-58.

1. Legal opacity and misunderstanding

Legal language is ambiguous when it has more than one definitive meaning, and vague when its meaning is unclear.<sup>57</sup> These concepts are not mutually exclusive.<sup>58</sup> With regard to the proximity test for attempt, for example, Robert Weisberg observed: “[T]he [*Rizzo*] Court straightforwardly announce[d] that ‘nearness’ is the key criterion. Of course ‘nearness’ is not only vague, it is ambiguous in that it can be viewed spatially and temporally at the same time.”<sup>59</sup> The key concept of “substantial” in the MPC’s test for attempt is also both vague in what it encompasses, and ambiguous in that it could be referring to either something de minimis (that is, anything of substance) or something particularly significant (that is, not just *any* step, but one that is *substantial*).

In this Article, I use the term “opacity” to describe the combination of legal ambiguity and vagueness of attempt laws and other legal doctrines<sup>60</sup> whose hazy parameters may put even the most committed jurors at risk of misconstruing legislative intent. Opaque legal language calls for the challenging cognitive tasks of interpretation and construction.<sup>61</sup> When is a “step” toward an uncompleted crime “substantial” enough to warrant criminal punishment? Or, how close to committing an offense is “proximate” enough for criminal liability? In the hands of lay decisionmakers who lack formal training in legal doctrine and analysis, the use of such ambiguous and vague terms could lead to unintentional misconstructions of the law.

Jury instructions generally do not provide sufficient guidance to avert this risk. A comparative review I conducted of statutes and pattern jury instructions for criminal attempt across jurisdictions revealed that the instructions generally followed the statutory language, without providing much further clarification for jurors.<sup>62</sup> This close adherence to statutory

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57. See Randy E. Barnett, Essay, *Interpretation and Construction*, 34 HARV. J.L. & PUB. POL’Y 65, 67-68 (2011).

58. See Lawrence B. Solum, Essay, *The Interpretation-Construction Distinction*, 27 CONST. COMMENT. 95, 97-98 (2010) (offering “cool” as an example of a word that is vague when referring to temperature and ambiguous when referring to either temperature or impressiveness).

59. Weisberg, *supra* note 1, at 367.

60. See *infra* Part IV.B.3.

61. See Barnett, *supra* note 57, at 68-69 (differentiating ambiguity and vagueness with regard to semantic resolution); see also Solum, *supra* note 58, at 98 (“[A]mbiguities in legal texts can (usually) be resolved by interpretation, but constitutional vagueness always requires construction.”); *id.* at 100 (“[I]nterpretation yields semantic content, whereas construction determines legal content or legal effect.”).

62. For a similar conclusion, see Peter Meijes Tiersma, *Reforming the Language of Jury Instructions*, 22 HOFSTRA L. REV. 37, 40 (1993) (“All too often instructions track the language of an applicable statute almost verbatim, so that a charge may differ little or not at all from simply reading the statute.”).

language can be problematic when the initial legislative wording is itself opaque.<sup>63</sup> Unlike legal professionals who receive training through law school and experience in practice, jurors are not informed of the legislative goals and rationales underlying their jurisdiction's chosen law, or of how that law has operated across other cases and jurisdictions. Without such doctrinal context, how do lay decisionmakers decipher opaque terms like "substantial" and "proximity," and how do they apply these terms when a high-stakes tradeoff between a defendant's liberty and society's safety is on the line? This is one line of inquiry that this Article empirically investigates.

## 2. Legal opacity and bias

Adding to the prospect of lay misunderstandings of the law, legal opacity engenders a risk that jurors will draw upon the only other information they are given—factual information about the case, which may include legally extrinsic information—to construe and implement the law in a potentially discriminatory manner. For example, lay decisionmakers may interpret and apply the open-ended legal tests for criminal attempt more or less harshly depending on doctrinally irrelevant characteristics of the defendant and the allegedly attempted crime.

Behavioral science research has shown that ambiguous situations are more likely to trigger or exacerbate biasing psychological processes that operate outside of conscious awareness and control, as decisionmakers try to assess, interpret, and fill in information.<sup>64</sup> People may use heuristics (intuitive cognitive shortcuts that reduce complex tasks into simpler judgments),<sup>65</sup> stereotypes (judgmental heuristics used in social perception),<sup>66</sup> implicit biases (attitudes that unconsciously influence judgments),<sup>67</sup> and motivated cognition (the tendency for people to unknowingly reason toward their desired outcomes) to resolve uncertainty.<sup>68</sup>

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63. See Lawrence M. Solan, *Convicting the Innocent Beyond a Reasonable Doubt: Some Lessons About Jury Instructions from the Sheppard Case*, 49 CLEV. ST. L. REV. 465, 468-69 (2001).

64. See SUSAN T. FISKE & SHELLEY E. TAYLOR, *SOCIAL COGNITION: FROM BRAINS TO CULTURE* 188-217, 303-64 (3d ed. 2017); Sunita Sah et al., *Combating Biased Decisionmaking & Promoting Justice & Equal Treatment*, 2 BEHAV. SCI. & POL'Y, no. 2, 2016, at 79, 80; Katherine B. Spencer et al., *Implicit Bias and Policing*, 10 SOC. & PERSONALITY PSYCHOL. COMPASS 50, 52, 59 (2016).

65. See generally, e.g., Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 SCIENCE 1124 (1974).

66. See generally, e.g., Galen V. Bodenhausen, *Stereotypes as Judgmental Heuristics: Evidence of Circadian Variations in Discrimination*, 1 PSYCHOL. SCI. 319 (1990).

67. See generally, e.g., Anthony G. Greenwald & Mahzarin R. Banaji, *Implicit Social Cognition: Attitudes, Self-Esteem, and Stereotypes*, 102 PSYCHOL. REV. 4 (1995).

68. See generally, e.g., Ziva Kunda, *The Case for Motivated Reasoning*, 108 PSYCHOL. BULL. 480 (1990).

For example, psychologists have illustrated such “disambiguation” effects through “shooter bias” experiments, in which participants are asked to make snap judgments about whether to shoot an “ambiguous, but potentially hostile, target” who is holding either a gun or an innocuous object such as a wallet or a cellphone.<sup>69</sup> Participants are quicker to shoot armed black men than armed white men, and they take less time deciding *not* to shoot unarmed white men than unarmed black men.<sup>70</sup>

Especially relevant to constructions of criminality by jurors, other research has found that lay participants who are exposed to black faces are thereafter better able to detect degraded, ambiguous images of objects associated with crime, like guns and knives, whereas being exposed to white faces inhibits detection of these objects.<sup>71</sup> The implicit associations between race and criminality appear to be bidirectional: After being primed with images related to crime, participants are faster to direct their attention toward a black face than a white face.<sup>72</sup>

A significant body of literature has identified and explored the implications of such biases throughout the criminal justice system—from police stops and pretrial detention to sentencing and beyond.<sup>73</sup> Building upon that work, the second research question this Article experimentally investigates is whether opaque legal standards for criminal liability present another entry point for biased decisionmaking, enabling legally extrinsic factors to color jury determinations of not only facts but also law.

When jurors in attempt cases have to construe opaque legal standards (*where* the line of liability lies) and apply them to equivocal facts (*whether* or not the relevant evidence proves the defendant crossed that line), there is a risk that their cognitive processing will run in the reverse direction: Actual or assumed extralegal factors may inappropriately influence jurors’ constructions and applications of the law itself. The risk of discriminatory outcomes in lay

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69. See Joshua Correll et al., *The Police Officer’s Dilemma: Using Ethnicity to Disambiguate Potentially Threatening Individuals*, 83 J. PERSONALITY & SOC. PSYCHOL. 1314, 1315, 1322 (2002).

70. See *id.* at 1325.

71. See Jennifer L. Eberhardt et al., *Seeing Black: Race, Crime, and Visual Processing*, 87 J. PERSONALITY & SOC. PSYCHOL. 876, 880-81 (2004).

72. See *id.* at 882-83, 888-91.

73. See, e.g., Shima Baradaran, *Race, Prediction, and Discretion*, 81 GEO. WASH. L. REV. 157, 172 (2013); Mark W. Bennett & Victoria C. Plaut, *Looking Criminal and the Presumption of Dangerousness: Afrocentric Facial Features, Skin Tone, and Criminal Justice*, 51 U.C. DAVIS L. REV. 745, 748-52 (2018); Robert J. Sampson & Janet L. Lauritsen, *Racial and Ethnic Disparities in Crime and Criminal Justice in the United States*, 21 CRIME & JUST. 311, 345 (1997); Darrell Steffensmeier et al., *The Interaction of Race, Gender, and Age in Criminal Sentencing: The Punishment Cost of Being Young, Black, and Male*, 36 CRIMINOLOGY 763, 786 (1998).

applications of opaque laws may be further heightened by the difficulty of the adjudication task itself, because decisionmakers are more susceptible to stereotypes and biases when they are cognitively stretched.<sup>74</sup>

Attempt law also presents a symbolically important legal context for investigating biased constructions of criminality due to the troubling ways the doctrine has been applied historically. In the infamous 1950s case *McQuirter v. State*, the Alabama Court of Appeals upheld a black defendant's conviction for attempted assault with intent to rape a white woman while in a predominantly white neighborhood, under the reasoning that race could be taken into account in assessing the defendant's criminal intent.<sup>75</sup> Although such blatantly race-based judgments about criminality would no longer pass legal muster,<sup>76</sup> the definitional opacity of attempt law may leave its applications vulnerable to less conscious biases based on legally irrelevant factors.

#### D. Investigating Islamophobia

This Article's studies empirically test for religion-based biases in lay constructions of criminal attempt, particularly in regard to Islam and its associated identities. I selected this variable among the host of legally irrelevant factors that could trigger unfair prejudice in determinations of criminal liability because compared to other potentially biasing variables like race and gender, the role of the accused's religion has been under-studied by psychologists.<sup>77</sup>

The limited existing psychology literature on anti-Islam bias has found evidence of generally negative implicit attitudes toward Muslims;<sup>78</sup> interpersonal discrimination against Muslims in academic and work contexts;<sup>79</sup> and a greater tendency to shoot in the "shooter bias" paradigm

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74. See Spencer et al., *supra* note 64, at 52-53.

75. See 63 So. 2d 388, 388-90 (Ala. Ct. App. 1953).

76. See, e.g., Peña-Rodriguez v. Colorado, 137 S. Ct. 855, 871 (2017) ("[B]latant racial prejudice is antithetical to the function of the jury system . . ."); *People v. Robinson*, No. 14CA1795, 2017 WL 4684157, at \*4 (Colo. App. Oct. 19, 2017) (noting that the rule applied in *McQuirter* is "now defunct"), *cert. granted*, No. 17SC823, 2018 WL 2772788 (Colo. June 11, 2018).

77. Cf. FISKE & TAYLOR, *supra* note 64, at 304 ("The most frequent intergroup distinctions in the United States at this time are gender, race, age, immigrant status, and sexual orientation. Most bias research in social psychology has focused on race and gender, assuming that the processes generalize across other social categories.").

78. See Brian A. Nosek et al., *Pervasiveness and Correlates of Implicit Attitudes and Stereotypes*, 18 EUR. REV. SOC. PSYCHOL. 36, 52-53 (2007); Jaihyun Park et al., *Implicit Attitudes Toward Arab-Muslims and the Moderating Effects of Social Information*, 29 BASIC & APPLIED SOC. PSYCHOL. 35, 42 (2007).

79. See Eden B. King & Afra S. Ahmad, *An Experimental Field Study of Interpersonal Discrimination Toward Muslim Job Applicants*, 63 PERSONNEL PSYCHOL. 881, 901-02 (2010);  
*footnote continued on next page*

described above when the target is wearing a Muslim turban,<sup>80</sup> or even if participants are just primed to think about either Muslims or Arabs through words associated with these groups.<sup>81</sup> The latter finding illustrates that anti-Muslim bias may be difficult to single out from other biases based on race, ethnicity, and national origin.<sup>82</sup>

Since my experimental studies were not designed to distinguish between overlapping identities associated with Islam, this Article's references to the independent variable of "implied religion" are made with the acknowledgment that this variable may also invoke other, nonreligious identity characteristics.<sup>83</sup> For example, participants may have assumed that a criminal defendant named Mohamed was not only a Muslim but also a man of color and/or of Arab origin. Indeed, multiple identity variables are often implicated in the phenomenon of Islamophobia—the "exaggerated fear, hatred, and hostility toward Islam and Muslims that is perpetuated by negative stereotypes resulting in bias [and] discrimination."<sup>84</sup> Researchers have suggested that "Americans are either not sufficiently aware of the distinction between the categories of Arabs and Muslims, which sometimes overlap, or [are] aware of the distinction but consider both equally threatening."<sup>85</sup>

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Christian Unkelbach et al., *A Turban Effect, Too: Selection Biases Against Women Wearing Muslim Headscarves*, 1 SOC. PSYCHOL. & PERSONALITY SCI. 378, 381 (2010); Bradley R.E. Wright et al., *Religious Affiliation and Hiring Discrimination in New England: A Field Experiment*, 34 RES. SOC. STRATIFICATION & MOBILITY 111, 121 (2013).

80. See Christian Unkelbach et al., *The Turban Effect: The Influence of Muslim Headgear and Induced Affect on Aggressive Responses in the Shooter Bias Paradigm*, 44 J. EXPERIMENTAL SOC. PSYCHOL. 1409, 1411 (2008); see also *supra* text accompanying notes 69-70 (explaining the shooter bias paradigm).

81. See Jessica Mange et al., *Thinking About Arabs and Muslims Makes Americans Shoot Faster: Effects of Category Accessibility on Aggressive Responses in a Shooter Paradigm*, 42 EUR. J. SOC. PSYCHOL. 552, 555 (2012).

82. See *id.*

83. See *infra* Part IV.B.2.

84. *Islamophobia: Understanding Anti-Muslim Sentiment in the West*, GALLUP, <https://perma.cc/CFT2-KHGL> (archived Jan. 27, 2019); see also Tomaž Mastnak, *Western Hostility Toward Muslims: A History of the Present*, in ISLAMOPHOBIA/ISLAMOPHILIA: BEYOND THE POLITICS OF ENEMY AND FRIEND 29, 29 (Andrew Shryock ed., 2010); Junaid Rana, *The Story of Islamophobia*, 9 SOULS 148, 149 (2007).

85. Mange et al., *supra* note 81, at 555; see also Thomas W. Joo, *Presumed Disloyal: Executive Power, Judicial Deference, and the Construction of Race Before and After September 11*, 34 COLUM. HUM. RTS. L. REV. 1, 33 (2002) ("[T]he 'Arab' racial category is sometimes conflated with the 'Muslim' religious category, even though most Arabs in America are not Muslim and most of the world's Muslims are not Arabs."); Natsu Taylor Saito, *Symbolism Under Siege: Japanese American Redress and the "Racing" of Arab Americans as "Terrorists"*, 8 ASIAN L.J. 1, 12 (2001) ("Although Arabs trace their roots to the Middle East and claim many different religious backgrounds, and Muslims come from all over the world and adhere to Islam, these distinctions are blurred and negative images about either Arabs or Muslims are often attributed to both."); Adrien Katherine Wing, *Civil*  
*footnote continued on next page*

Legal implications of Islamophobia are increasingly coming to the fore due to antagonistic political and popular discourse about Muslims.<sup>86</sup> Scholars have observed that cultural “demonizing” of Muslims has been “accompanied by harsh legal measures directed at them” in the arenas of civil rights and immigration.<sup>87</sup> Concurrently, “private” acts of discrimination against Muslims appear to have “public’ origins [and] consequences.”<sup>88</sup> At the intersection of individual and institutional prejudice, this Article considers the potential role of Islamophobia in criminal law, where lay decisionmakers are called upon to decide whether punitive governmental action should be taken against a fellow private citizen.

Data on the role of religion-based bias in applications of criminal attempt law could also offer a timely empirical contribution to current legal debates about the government’s expanding use of inchoate criminal liability—including charges of attempt, conspiracy, solicitation, and material support—in the context of terrorism prevention.<sup>89</sup> Human rights advocates have reported on the particular impact of this trend on Muslim communities,<sup>90</sup> and researchers across disciplines have called for more “controlled experiments” to “give further insight into how bias may emerge when humanitarian values conflict with national security.”<sup>91</sup>

This Article’s studies do not just test for the presence or absence of biased decisionmaking depending on the defendant’s implied religion; they additionally investigate the role of the *law* in potentially triggering such bias.

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*Rights in the Post 9/11 World: Critical Race Praxis, Coalition Building, and the War on Terrorism*, 63 LA. L. REV. 717, 722 (2003) (“While there are over 1.2 billion Muslims worldwide, only 15% are Arab.”).

86. See Wing, *supra* note 85, at 723-35; Mona Chalabi, *How Anti-Muslim Are Americans?: Data Points to Extent of Islamophobia*, GUARDIAN (Dec. 8, 2015, 1:38 PM EST), <https://perma.cc/H9MM-JUXZ>; Kim Ghattas, *The United States of Islamophobia*, FOREIGN POL’Y: VOICES (July 5, 2016, 7:07 PM), <https://perma.cc/4ZD3-GN7Z>.

87. See Susan M. Akram & Kevin R. Johnson, *Race, Civil Rights, and Immigration Law After September 11, 2001: The Targeting of Arabs and Muslims*, 58 N.Y.U. ANN. SURV. AM. L. 295, 298-301 (2002).

88. See Leti Volpp, *The Citizen and the Terrorist*, 49 UCLA L. REV. 1575, 1583 (2002).

89. See, e.g., Robert Bejesky, *Sixty Shades of Terror Plots: Locating the Actus Reus and the Hypothetical Line for Entrapment*, 48 CREIGHTON L. REV. 393, 399 (2015); Robert M. Chesney, *Beyond Conspiracy?: Anticipatory Prosecution and the Challenge of Unaffiliated Terrorism*, 80 S. CAL. L. REV. 425, 492-94 (2007); Wayne McCormack, *Inchoate Terrorism: Liberalism Clashes with Fundamentalism*, 37 GEO. J. INT’L L. 1, 3-5 (2005).

90. See CTR. FOR HUMAN RIGHTS & GLOB. JUSTICE, NYU SCH. OF LAW, TARGETED AND ENTRAPPED: MANUFACTURING THE “HOMEGROWN THREAT” IN THE UNITED STATES 2-3, 42 (2011), <https://perma.cc/6QYM-PKRQ>; HUMAN RIGHTS WATCH & COLUMBIA LAW SCH. HUMAN RIGHTS INST., ILLUSION OF JUSTICE: HUMAN RIGHTS ABUSES IN US TERRORISM PROSECUTIONS 3, 7, 165-66 (2014), <https://perma.cc/YL8Y-X73B>.

91. See Sah et al., *supra* note 64, at 84-85.

Notwithstanding the large body of work demonstrating the emergence of extralegal discrimination in the criminal justice system,<sup>92</sup> researchers have also observed that biases do not emerge “in *every* context and for *every* type of [legal] decisionmaking task.”<sup>93</sup> Could the language of the given law itself be one of the determining factors? The answer to this question could generate new pathways for addressing the thorny challenge of identifying and combating bias in jury adjudication more broadly.

## II. The Experiments

This Part presents a series of original experimental studies investigating lay constructions of criminal attempt. The participants were recruited through Mechanical Turk (MTurk)<sup>94</sup>—an online platform for human intelligence tasks that offers low-cost, diverse samples and the benefit of standardization through wide usage in published research.<sup>95</sup> Like any source of human participant data, MTurk has its limitations.<sup>96</sup> But empirical studies have supported its reliability as a source of participant samples that approximate a nationally representative population,<sup>97</sup> offer more ethnic and economic diversity than in-person experiments,<sup>98</sup> and provide a quality of data that “me[ets] or exceed[s] the psychometric standards associated with published research.”<sup>99</sup> In fact, a recent comparative study by an interdisciplinary team of business, law, and

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92. See *supra* Part I.C.2.

93. See Francis X. Shen, *Minority Mens Rea: Racial Bias and Criminal Mental States*, 68 HASTINGS L.J. 1007, 1009 (2017).

94. See AMAZON MECHANICAL TURK, <https://perma.cc/P2AP-XFU8> (archived Jan. 27, 2019).

95. See Krin Irvine et al., *Law and Psychology Grows Up, Goes Online, and Replicates*, 15 J. EMPIRICAL LEGAL STUD. 320, 326 (2018); Gabriele Paolacci et al., *Running Experiments on Amazon Mechanical Turk*, 5 JUDGMENT & DECISION MAKING 411, 413-14 (2010).

96. See Irvine et al., *supra* note 95, at 321, 328-30 (discussing concerns about MTurk being too inexpensive; unrepresentative of the broader population in terms of the participants' age, political ideology, and naivete; and challenging for covert experimental manipulations due to particularly high participant attention and motivation).

97. See Adam J. Berinsky et al., *Evaluating Online Labor Markets for Experimental Research: Amazon.com's Mechanical Turk*, 20 POL. ANALYSIS 351, 352 (2012).

98. See Krista Casler et al., *Separate but Equal?: A Comparison of Participants and Data Gathered via Amazon's MTurk, Social Media, and Face-to-Face Behavioral Testing*, 29 COMPUTERS HUM. BEHAV. 2156, 2158 (2013).

99. See Michael Buhrmester et al., *Amazon's Mechanical Turk: A New Source of Inexpensive, Yet High-Quality, Data?*, 6 PERSP. ON PSYCHOL. SCI. 3, 5 (2011).

psychology scholars found that MTurk participants had higher levels of attentiveness than participants recruited by a more costly commercial survey firm or by an in-person university lab.<sup>100</sup>

Each of the experiments used separate samples of MTurk participants who were blocked from participating in more than one experiment in this series. In addition, the samples were restricted to respondents who had a 95% or higher approval rating on MTurk, a mechanism designed to help ensure high-quality results.<sup>101</sup> All the studies contained attention and manipulation checks, as well as open-ended questions that called for committed engagement with the decisionmaking task. In addition, there were prespecified criteria, such as minimum time spent on the study, set to automatically exclude less engaged respondents from the final sample.<sup>102</sup> All the participants were jury-eligible U.S. citizens and residents.

SPSS software was used to analyze the data from all the experiments. The statistical significance threshold—which tests for “whether the findings are likely to be due to chance” rather than effects of the independent variables<sup>103</sup>—was set at  $p < 0.05$  as per the convention in the psychological sciences.<sup>104</sup> In addition, effect sizes were calculated to gauge “the magnitude of differences found.”<sup>105</sup> A research assistant with graduate training in both law and

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100. See Irvine et al., *supra* note 95, at 343-44; see also *id.* at 331 (observing that “the weight of the evidence seems to be in favor of MTurk as a reasonable subject pool” and that “at this point, the burden of persuasion is on those who are arguing otherwise”).

101. See *id.* at 329 (noting that MTurk participants are “highly motivated to have their work accepted” and “care about reputation” (emphasis omitted)).

102. For details of the exclusions, see Appendix A below.

103. Gail M. Sullivan & Richard Feinn, Editorial, *Using Effect Size—or Why the P Value Is Not Enough*, 4 J. GRADUATE MED. EDUC. 279, 281 (2012).

104. See ARTHUR ARON ET AL., STATISTICS FOR PSYCHOLOGY 112-13 (5th ed. 2009). In analyzing the data, I generally employed analysis of variance (ANOVA) tests for continuous measures (scales ranging from 1 to 7) and chi-square tests for dichotomous measures (the binary verdict options of “guilty” or “not guilty”). Multivariate data were analyzed first through an ANOVA between the groups of interest to control for the multiple chances of finding differences, without assuming independence of the dependent variables. If the ANOVA uncovered a significant interaction, thereby establishing that there were some differences between the groups beyond chance (at  $p < 0.05$ ), *t*-tests were run to refine the understanding of those group differences. For further explanations of these statistical tests and concepts, see GEOFFREY KEPPEL & THOMAS D. WICKENS, DESIGN AND ANALYSIS: A RESEARCHER’S HANDBOOK 24-25, 71-73 (4th ed. 2004); and BARBARA G. TABACHNICK & LINDA S. FIDELL, USING MULTIVARIATE STATISTICS 58-59 (5th ed. 2007) (discussing the chi-square test).

105. Sullivan & Feinn, *supra* note 103, at 281. Cohen’s *d* is used to report effect sizes in *t*-test analyses, for which generally 0.2 is considered a “small” effect, 0.5 is considered “medium,” and 0.8 is considered “large” and “obvious to a superficial glance.” See KEPPEL & WICKENS, *supra* note 104, at 161-62. Partial eta-squared ( $\eta^2_p$ ) is used to report effect sizes in ANOVAs, for which generally 0.01 is considered a “small” effect, 0.06 is considered “medium,” and 0.14 is considered “large.” See Catherine O. Fritz et al., *Effect*  
*footnote continued on next page*

psychology independently confirmed the quantitative analyses reported in this Part while blind to my findings. Two coders independently categorized the qualitative data (participants' written explanations) discussed in Part III below.

### A. Study 1: The Interplay of Facts and Law

The first experiment, with 203 participants,<sup>106</sup> was designed to test the following: Do lay applications of the theoretically different standards for criminal attempt (substantial step versus proximity) actually lead to different legal outcomes? And to what extent does this depend on the direction of the legally relevant facts (that is, whether the evidence points toward innocence, toward guilt, or is ambiguous)? Furthermore, if the law does matter, does it matter in the way legislators intend? In other words, is the defendant actually more likely to be found guilty under the substantial step test? To investigate these questions, Study 1 manipulated two independent variables: (1) the legally relevant facts of the case—which pointed first toward innocence, then became more ambiguous, and finally skewed toward guilt; and (2) the given law for the act requirement of criminal attempt—for which participants were randomly assigned either the substantial step or proximity test.

#### 1. Methodology

##### a. Case facts: innocent, ambiguous, and guilty

Study 1 presented the participants with a hypothetical case of a defendant charged with attempted arson.<sup>107</sup> The legally relevant case facts were delivered in three stages.<sup>108</sup> The first set of facts pointed largely toward innocence but

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*Size Estimates: Current Use, Calculations, and Interpretation*, 141 J. EXPERIMENTAL PSYCHOL.: GEN. 2, 8, 10 (2012). It is important, however, to evaluate effect sizes in context, because ultimately “it is the practical or theoretical importance of the effect that determines what size qualifies the outcome as substantively significant.” *Id.* at 10; see also JACOB COHEN, STATISTICAL POWER ANALYSIS FOR THE BEHAVIORAL SCIENCES 25 (2d ed. 1988); Deborah A. Prentice & Dale T. Miller, *When Small Effects Are Impressive*, 112 PSYCHOL. BULL. 160, 160 (1992) (describing how experimental design can render even a “small” effect important).

106. The 203 participants in Study 1 were 51% male and 48% female, with one respondent who self-identified as bigender. They ranged from 18 to 78 years old, with an average age of 35.6 years. Of 223 initial respondents, 20 were excluded based on prespecified criteria, as detailed in Appendix A below.

107. The case facts were loosely based on *United States v. Candoli*, 870 F.2d 496 (9th Cir. 1989). The choice of arson as the attempted offense is a nod to the “arsonous” roots of the criminal attempt doctrine. See *R v. Scofield* (1784) Cald. 397 (Eng.); Nola Garton, *The Actus Reus in Criminal Attempts*, 2 QUEEN'S L.J. 183, 189-90 (1974).

108. For the full set of facts used in Study 1, see Appendix B below. The design originally also manipulated the potential harm that would have resulted if the allegedly

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included some suspicious circumstances to make the charged crime credible. The second set of facts introduced a potential motive for committing arson, thereby rendering the evidence more ambiguous with respect to the defendant's culpability. Finally, the third set of facts presented additional evidence that swung the pendulum toward guilt.

All the participants received all three sets of facts in the same order and rendered judgments about the defendant's criminal liability after each set—making this a “within-subjects” manipulation. The study was deliberately designed in this manner to resemble a layered unveiling of evidence over the course of a trial, and because having each of the participants respond to each of the scenarios minimizes the risk of random noise influencing the results.<sup>109</sup> On the other hand, a within-subjects design bears the risk of “learning and transfer” across conditions. For example, when the participants responded to the facts suggesting innocence, they were seeing the questions about the defendant's liability for the first time; whereas when they responded to the sets of facts more indicative of guilt, they had already seen and answered the questions before. This drawback was later addressed by retesting the effect of “ambiguous” facts on its own in Study 2 as a “between-subjects” design, in which participants received only one set of facts and questions.<sup>110</sup>

b. Law: substantial step or proximity

In manipulating the legal standard, Study 1 used instructions that were constructed based on a close review of state and federal jury instructions on criminal attempt from jurisdictions across the country, with a focus on prioritizing clarity and lay accessibility. Furthermore, in all of the experiments, participants received written jury instructions that they could refer to as needed, to maximize their comprehension of the law.<sup>111</sup> The legal instructions began with the following preamble: “A defendant can be found guilty of attempted arson even when the crime of arson is not completed, if the

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attempted arson had been completed (low versus high). However, this manipulation exerted no significant main effects on liability judgments, so it was collapsed across conditions in the analyses that follow.

109. See KEPPEL & WICKENS, *supra* note 104, at 11 (discussing the pros and cons of the within-subject design).

110. See *id.*; *infra* Part II.B; *infra* Appendix B.

111. See William H. Erickson, *Criminal Jury Instructions*, 1993 U. ILL. L. REV. 285, 291 (“No person is equipped to listen to a lengthy set of jury instructions and remember all of the details, particularly in a complex case.”); Nancy S. Marder, *Bringing Jury Instructions into the Twenty-First Century*, 81 NOTRE DAME L. REV. 449, 497 (2006) (“[J]urors, like students, do not necessarily learn best by listening to a lengthy lecture . . .”).

following two requirements for criminal attempt are proven beyond a reasonable doubt.” The participants were then presented with the requisite mental state and act elements of attempt.

For the mental state requirement, all the participants were given the following legal instruction:

The prosecution must prove beyond a reasonable doubt that the defendant had the intent in his mind to commit the crime of arson, even if he did not actually complete the crime. According to the law, a person has intent to commit a crime when his conscious object or purpose is to commit that crime.

Since the intent requirement for attempt liability is generally consistent across all jurisdictions, it was held constant across law conditions in these studies.

For the act requirement of attempted arson, the participants were randomly assigned to apply either the substantial step test or the proximity test, as defined by the following instructions (without the italicized condition label presented below):

*Substantial step test:* The prosecution must prove beyond a reasonable doubt that the defendant engaged in a substantial step toward committing arson—which means that the conduct was strongly corroborative of (clearly indicated) intent to commit arson.

*Proximity test:* The prosecution must prove beyond a reasonable doubt that the defendant engaged in conduct that tended toward committing arson—which means that the conduct came dangerously close or very near to committing arson.

## 2. Results

### a. Effect of case facts

Study 1’s manipulation of legally relevant evidence in the attempted arson case operated as intended. When just the effect of the given facts was analyzed without regard to the assigned law, the data showed that participants were increasingly likely to perceive the defendant as meeting the intent and act requirements for criminal attempt, and more likely to find the defendant guilty of attempted arson, as the weight of the evidence progressed from pointing toward innocence (14% convicted the defendant), then to ambiguity (54% convicted the defendant), and then to guilt (81% convicted the defendant).<sup>112</sup> The resulting verdict pattern is shown in Figure 1 below.

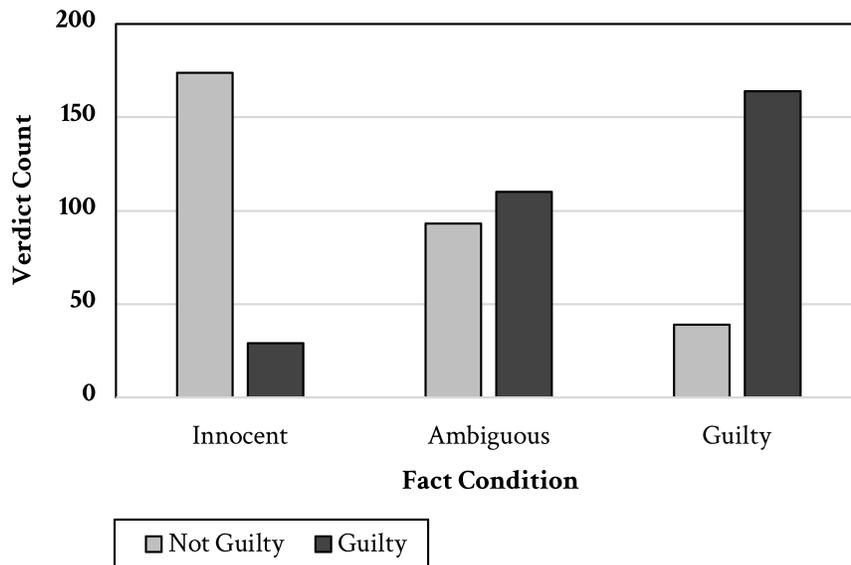
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112. Repeated measures ANOVA comparing the effects of the three case *fact* conditions (innocent, ambiguous, guilty) on the measure of *intent*: Wilks’ lambda = 0.29,  $F(2, 201) = 241.54$ ,  $p < 0.001$ ,  $\eta^2_p = 0.71$ ; on the measure of *act*: Wilks’ lambda = 0.27,  $F(2, 201) = 279.18$ ,  $p < 0.001$ ,  $\eta^2_p = 0.74$ ; and on the continuous measure of perceived *guilt*: Wilks’ lambda = 0.23,  $F(2, 201) = 334.84$ ,  $p < 0.001$ ,  $\eta^2_p = 0.77$ .

For the ultimate *verdicts* delivered (a dichotomous measure), a majority of participants (86%) said the defendant was not guilty when the facts pointed toward innocence; the

*footnote continued on next page*

**Figure 1**  
Study 1: Effect of Case Facts on Verdicts



$N = 203$ . When the facts pointed toward innocence, a significant majority of the participants acquitted the defendant. When the facts were ambiguous, the same participants' verdicts were closely split between not guilty and guilty. When the facts pointed toward guilt, a significant majority of the participants convicted the defendant.

b. Interactions of facts and law

The manipulation of the legal standard made no significant difference to lay determinations of liability when the case facts pointed toward either innocence or guilt. Regardless of whether they were applying the substantial step or proximity test, the participants assigned significantly lower ratings of criminal intent, conduct, and guilt—and were much more likely to acquit the defendant—when the evidence pointed toward innocence. Inversely, the participants assigned significantly higher ratings on these continuous measures

verdicts were split (54% guilty, 46% not guilty) when the facts were ambiguous; and a majority (81%) found the defendant guilty when the facts pointed toward guilt. Chi-square statistics for the differences in the patterns of verdicts between the *innocent* versus *ambiguous* sets of facts:  $X^2(1, N = 203) = 28.61, p < 0.001$ ; between the *ambiguous* versus *guilty* sets of facts:  $X^2(1, N = 203) = 57.10, p < 0.001$ ; and between the *innocent* versus *guilty* sets of facts:  $X^2(1, N = 203) = 8.05, p = 0.002$ .

of liability—and were much more likely to convict the defendant—when the evidence pointed toward guilt. This suggests that the theoretical contrast between where these different legal standards for attempt draw their respective lines of liability is unlikely to matter in lay applications of the law when the weight of the evidence is relatively clear in either direction. The practical implications of this finding may be somewhat limited, however, given that factually *unambiguous* cases are unlikely to get before a jury in the first place. The prosecution is unlikely to pursue criminal charges if the evidence heavily points toward innocence, and the defendant will likely plead out without going to trial if the evidence heavily points toward guilt.

Of greater significance, both statistically and substantively, is what occurred when the facts of the given case were ambiguous with regard to the defendant's culpability, which is when a case is most likely to go to trial.<sup>113</sup> In these circumstances, the given law mattered markedly—but in a manner directly opposite to legal expectations. Participants construed the defendant's conduct as being more likely to meet the act requirement of criminal attempt,<sup>114</sup> and they were significantly more likely to deliver a guilty verdict,<sup>115</sup> when applying the theoretically more defense-friendly proximity test as compared with the substantial step test. Figure 2 below illustrates that when participants judged the ambiguous case facts, they assigned significantly more guilty verdicts (60.6%) than acquittals (39.4%) if they were applying the proximity test, whereas there was no statistically significant difference between the number of convictions and acquittals if they were applying the substantial step test.

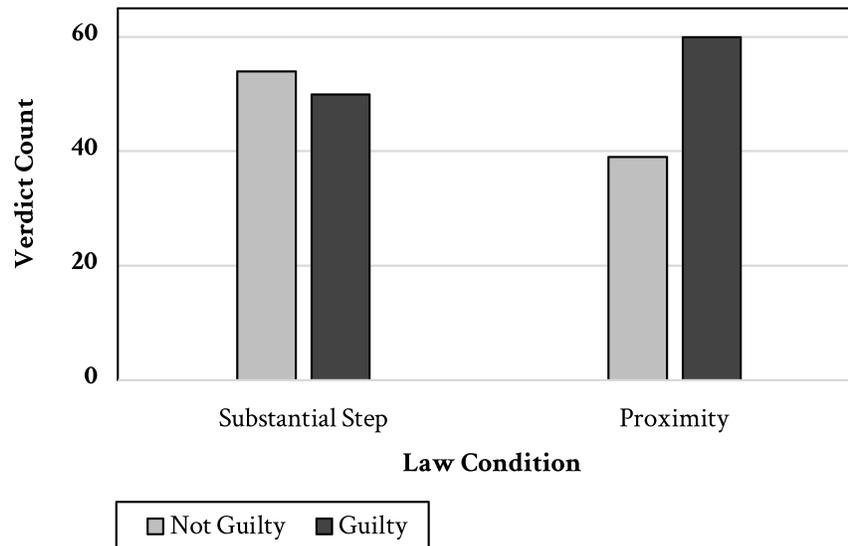
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113. See Frederick Schauer, *Legal Realism Untamed*, 91 TEX. L. REV. 749, 757-58 (2013).

114. Repeated measures ANOVA for the interaction of *facts* and *law* on the measure of *act*: Wilks' lambda = 0.97,  $F(2, 200) = 3.25$ ,  $p = 0.04$ ,  $\eta^2_p = 0.03$ .

115. Chi-square statistics for the overall effect of *facts* and *law* on *verdict*:  $X^2(1, N = 203) = 3.21$ ,  $p = 0.04$ ; for the effect of *ambiguous facts* and the *proximity test* on *verdict*:  $X^2(1, N = 99) = 4.46$ ,  $p = 0.04$ .

**Figure 2**  
Study 1: Effect of Law on Verdicts Under Ambiguous Facts



*N* = 203. When the case facts were ambiguous, participants applying the proximity test delivered significantly more guilty verdicts than acquittals, whereas there was no statistically significant difference in the verdicts of participants applying the substantial step test.

Participants who applied the proximity test to the ambiguous case facts also tended toward recommending that the defendant be punished more severely if he was convicted, as compared with participants who applied the substantial step test.<sup>116</sup> This finding was only marginally significant, but it is noteworthy because the legal instructions in both law conditions spoke only to whether or not the defendant should be held liable for criminal attempt, without any indication of how much he would or should be punished if convicted.

#### B. Study 2: Varying Crimes and Real Instructions

Study 2, with 215 participants,<sup>117</sup> sought to replicate and extend the validity of Study 1's findings by investigating two further questions: Does the

116. Repeated measures ANOVA for the interaction of *facts* and *law* on the measure of *punishment severity*: Wilks' lambda = 0.97,  $F(2, 200) = 2.99$ ,  $p = 0.05$  (marginal),  $\eta^2_p = 0.03$ .

117. The 215 participants in Study 2 were 50.7% male and 48.8% female, with one respondent who preferred not to specify gender. They ranged from 19 to 70 years old, *footnote continued on next page*

type of allegedly attempted crime, a doctrinally irrelevant factor,<sup>118</sup> influence lay applications of attempt law? And do lay understandings of the law better cohere with legal expectations when decisionmakers are given real, more elaborated jury instructions? This second experiment thus introduced a new independent variable—crime type—and presented detailed jury instructions on attempt law from two actual jurisdictions.

## 1. Methodology

### a. Attempted crime: terrorism, arson, or trespass

Study 2 manipulated the type of crime the defendant was charged with having attempted in order to explore the external validity of the first study's findings (the extent to which the demonstrated effects generalize across different situations).<sup>119</sup> Participants were randomly assigned to judge one of three cases that varied in regard to the severity of the allegedly attempted crime: attempted terrorism (high severity), attempted arson (moderate severity), or attempted trespass (low severity). These three crimes were selected based on their relative rankings in the U.S. Department of Justice's National Survey of Crime Severity,<sup>120</sup> as well as a robust criminology finding that crimes against people (like terrorism) are generally regarded as significantly more severe than crimes against property (like trespass).<sup>121</sup> Manipulation

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with an average age of 35.3 years. Of 241 initial respondents, 26 were excluded based on prespecified criteria, as detailed in Appendix A below.

118. Current statutes and pattern jury instructions on attempt do not include severity of the crime as a relevant consideration. *See, e.g.*, sources cited *supra* notes 31-32, 40 (state criminal attempt statutes); sources cited *infra* note 127 (jury instructions from Connecticut and New York used in Studies 2 and 3).
119. *See* Marilyn B. Brewer, *Research Design and Issues of Validity*, in HANDBOOK OF RESEARCH METHODS IN SOCIAL AND PERSONALITY PSYCHOLOGY 3, 4 (Harry T. Reis & Charles M. Judd eds., 2000); Avani Mehta Sood, *Commentary, Applying Empirical Psychology to Inform Courtroom Adjudication—Potential Contributions and Challenges*, 130 HARV. L. REV. F. 301, 308-10 (2017).
120. *See* MARVIN E. WOLFGANG ET AL., BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, NCJ-96017, THE NATIONAL SURVEY OF CRIME SEVERITY, at vi-vii, x (1985), <https://perma.cc/S3DE-ZQTD> (reporting that a scenario where “[a] person plants a bomb in a public building [that] explodes and [kills] 20 people” received a mean severity score of 72.1; a scenario where “[a] person intentionally sets fire to a building causing \$100,000 worth of damage” received a score of 24.9; and a scenario where “[a] person trespasses in the backyard of a private home” received a score of 0.6).
121. *See* Stelios Stylianou, *Measuring Crime Seriousness Perceptions: What Have We Learned and What Else Do We Want to Know*, 31 J. CRIM. JUST. 37, 42 (2003); Mark Warr, *What Is the Perceived Seriousness of Crimes?*, 27 CRIMINOLOGY 795, 802 (1989).

checks in Study 2 confirmed that the crime variable exerted a large effect on the perceived severity of the alleged attempt between the three cases.<sup>122</sup>

The high-severity case of attempted terrorism presented a fact pattern in which the defendant was accused of trying to bomb a post office due to personal grievances with the U.S. Postal Service. There were twenty people in the vicinity who would have died if the alleged attempt had been successfully completed. The moderate-severity case of attempted arson presented the same facts as Study 1's ambiguous fact scenario, in which the defendant was accused of trying to commit arson on a building he owned, after having taken out a large fire insurance policy on the property. This alleged attempt occurred in a commercial area at night, with only one other person in the vicinity. The low-severity case of attempted trespass presented a fact pattern in which the defendant was accused of trying to jump over a wall from a public park into a private residential property to retrieve a valuable ball he had lost during a game in the park with friends.

In all three cases, the legally relevant case facts were designed and pretested to be ambiguous as to the defendant's culpability, since these were the circumstances in which lay applications of the law deviated most from legal expectations in Study 1.<sup>123</sup> Each set of case facts therefore included a potential motive for the allegedly attempted crime and some supporting evidence pointing toward guilt, countered by a potential explanation for the evidence that pointed toward innocence.<sup>124</sup> However, analysis of the data revealed that the participants judging the attempted terrorism and trespass cases were generally more likely to conclude that the case facts pointed toward innocence, while the participants judging the attempted arson case were divided as to the defendant's guilt as intended.<sup>125</sup>

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122. ANOVA for the effect of *crime* type on perceived *severity* of alleged attempt:  $F(2, 209) = 266.50$ ,  $p < 0.001$ ,  $\eta^2_p = 0.72$ . Results of follow-up *t*-tests (corrected for violating Levene's test): terrorism > arson:  $t(138) = 6.43$ ,  $p < 0.001$ ,  $d = 1.09$ ; terrorism > trespass:  $t(95) = 23.79$ ,  $p < 0.001$ ,  $d = 4.88$ ; arson > trespass:  $t(106) = 16.91$ ,  $p < 0.001$ ,  $d = 3.28$ . See KEPPEL & WICKENS, *supra* note 104, at 150-56 (discussing the assumption of equal variances, the Levene's test to assess this assumption, and how to deal with heterogeneity of variance when the Levene's test is violated).

123. See *supra* Part II.A.2.

124. For the full set of facts presented for each case, see Appendix B below.

125. See *infra* note 128 and accompanying text.

b. Law: substantial step or proximity

For purposes of ecological validity (the “representativeness” of an effect in terms of demonstrating it under real-world circumstances),<sup>126</sup> the manipulation of the law in Study 2 employed real jury instructions for the substantial step and proximity tests. Pattern jury instructions on criminal attempt vary in length across jurisdictions. The instructions selected for this experiment—adapted from Connecticut for the substantial step test and New York for the proximity test—provide lengthier descriptions of the legal standards relative to other jurisdictions.<sup>127</sup> Since these instructions were also more detailed than the shorter legal instructions used in Study 1, they allowed for a comparative test of whether lay decisionmakers are more likely to understand and apply the law as legislatively intended if given not only real but also more elaborated instructions.

The participants in Study 2 were first informed of the mental state element of intent, which was again held constant across both law conditions, as in Study 1. For the act element of attempt, the participants were randomly assigned to receive one of the following sets of instructions (without the italicized condition label presented below):

*Substantial step test:* The second element is that the defendant intentionally did an act constituting a substantial step in a course of conduct planned to culminate in [the allegedly attempted crime]. To be a substantial step, the conduct must be strongly corroborative of the defendant’s criminal purpose. The act or acts must constitute more than mere preparation. The defendant’s conduct must be at least the start of a line of conduct that will lead naturally to the commission of the crime. In other words, it must appear to the defendant that it was at least possible that the crime could be committed if he continued on his course of conduct.

*Proximity test:* The second element is that the defendant intentionally did an act tending to effect the commission of [the allegedly attempted crime]. Conduct that tends to effect the commission of a crime means conduct that comes dangerously close or very near to the completion of the intended crime. If a person intends to commit a crime and engages in conduct that carries his purpose forward within dangerous proximity to the completion of the intended crime, he is guilty of an attempt to commit that crime. The person’s conduct must be directed toward the

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126. See Brian H. Bornstein, *The Ecological Validity of Jury Simulations: Is the Jury Still Out?*, 23 LAW & HUM. BEHAV. 75, 75-77 (1999); Brewer, *supra* note 119, at 12.

127. For Connecticut’s instructions, see CRIMINAL JURY INSTRUCTION COMM., CONNECTICUT JUDICIAL BRANCH CRIMINAL JURY INSTRUCTIONS pt. 3.2 (2018), <https://perma.cc/9LBD-HHWN>. For New York’s instructions, see New York Attempt Jury Instructions, *supra* note 33. There were minor modifications made to these states’ jury instructions for purposes of experimental consistency.

accomplishment of the intended crime. It must go beyond planning and mere preparation, but it need not be the last act necessary to affect the actual commission of the intended crime. Rather, the conduct involved must go far enough that it comes dangerously close or very near to the completion of the intended crime.

## 2. Results

### a. Effect of crime

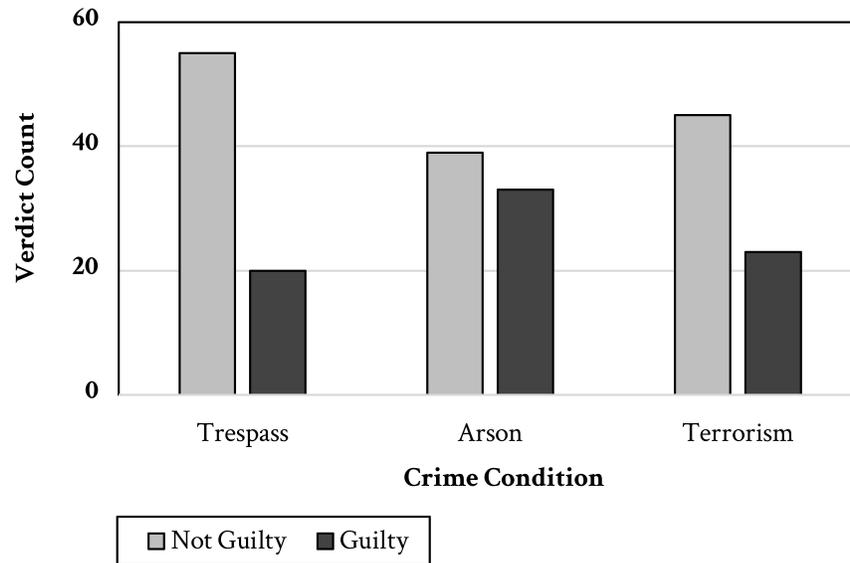
When the effect of the type of attempted crime was analyzed without regard to the legal standard being applied, there were significantly more acquittals than convictions in the attempted terrorism and trespass cases, suggesting that the facts presented in those cases skewed more toward innocence than experimentally intended.<sup>128</sup> In contrast, participants judging the attempted arson case were divided between verdicts of guilty and not guilty, suggesting that the weight of the evidence in that scenario was relatively ambiguous, as planned. Figure 3 below illustrates this result, showing that the verdict patterns for Study 2's attempted terrorism and trespass cases were most akin to the verdict pattern for the facts designed to skew toward innocence in Study 1.<sup>129</sup>

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128. Chi-square statistics for the effect of *crime type* on *verdict*:  $X^2(1, N = 215) = 6.01, p = 0.05$ . This marginal overall test was followed with binomial comparisons to find predicted differences (with the test property set at 0.50), which showed that the participants' verdicts were significantly skewed toward acquittal in the *terrorism* ( $p = 0.01$ ) and *trespass* ( $p < 0.001$ ) cases, but not in the *arson* case ( $p = 0.56$ ).

129. See *supra* Figure 1.

**Figure 3**  
Study 2: Effects of Crime Type on Verdicts



$N = 215$ . Participants judging the attempted terrorism and trespass cases were significantly more likely to acquit than to convict the defendant. Participants judging the attempted arson case exhibited no statistically significant difference between their rates of acquittal and conviction.

b. Replication of fact-law interaction

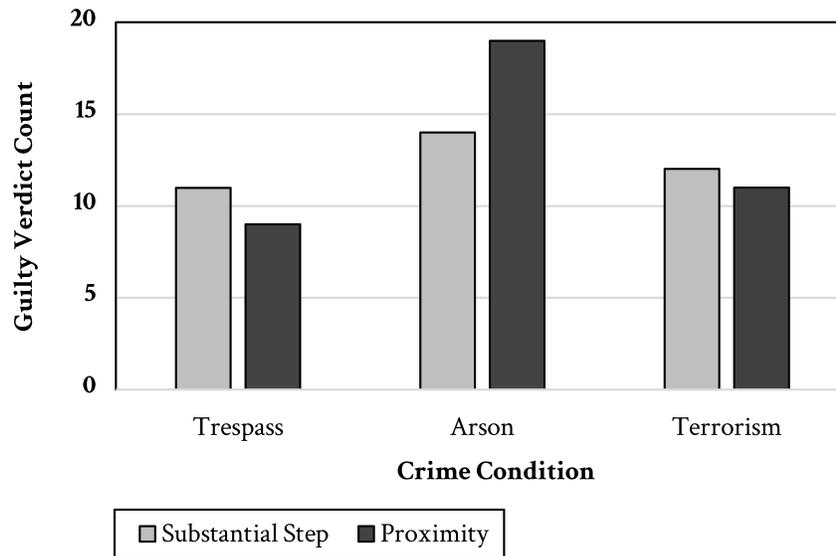
Taking this observed effect of the crime variable into account, the influence of the law variable in Study 2 was consistent with the findings of Study 1. Participants judging the ambiguous attempted arson case were more likely to render a guilty verdict when applying the proximity test than the substantial step test, although this effect reached only marginal significance here.<sup>130</sup> As illustrated in Figure 4 below, the defendant again tended to fare worse under the theoretically more defense-friendly proximity test in circumstances of factual ambiguity. Meanwhile, the law variable did not exert a significant influence on determinations of guilt in the two other cases (attempted terrorism and attempted trespass), in which the facts skewed toward

130. Chi-square statistics for the interaction of *law* and *crime* on *verdict*:  $X^2(1, N = 215) = 6.01$ ,  $p = 0.05$ . This marginal overall test was followed with binomial comparisons to find predicted differences (with the test property set at 0.50), which showed that the effect of *law* was only significant in the ambiguous *arson* case ( $p < 0.001$ ).

innocence. This is consistent with Study 1's finding that the different legal standards for attempt do not lead to significantly different outcomes when case facts point toward either innocence or guilt. In sum, the results of Study 2 further support the inference that lay decisionmakers do not apply the legal standards for attempt as legislatively intended.

**Figure 4**

Study 2: Interaction of Law and Crime Type on Guilty Verdicts



*N* = 76. Participants were marginally more likely to deliver a guilty verdict when judging the factually ambiguous attempted arson case under the proximity test as compared with the substantial step test. This trend was not seen in the attempted terrorism and trespass cases, where the facts skewed toward innocence (leading to overall fewer guilty verdicts in these cases, regardless of the legal test applied).

### C. Study 3: Michael vs. Mohamed—A Criminal by Any Other Name?

Study 3 expanded the research inquiry to examine whether and when lay applications of opaque attempt laws are vulnerable not only to legal misconstruction but also to extralegal bias. In particular, this final set of experiments sought to answer the following questions: Are lay determinations of criminal attempt influenced by legally irrelevant information about the defendant's implied religion? And does the emergence of such bias depend on the legal standard being applied (substantial step or proximity) and the type of crime allegedly attempted (terrorism or trespass)? Study 3 therefore introduced a new independent variable: the defendant's implied religion. This final study

consisted of two separate experiments that differed only with respect to the type of criminal attempt alleged: terrorism in Study 3a, with 281 participants,<sup>131</sup> and trespass in Study 3b, with 215 participants.<sup>132</sup>

1. Methodology

a. Law and crime

Study 3 employed the same detailed jury instructions for the substantial step and proximity tests as Study 2,<sup>133</sup> as well as the same attempted terrorism and trespass case facts. These cases not only test different ends of the offense severity spectrum,<sup>134</sup> they also allow for a particularly rigorous test of bias given that participants in Study 2 were significantly more likely to acquit than convict the defendant based on the evidence in these scenarios.<sup>135</sup> Study 3 thus examined whether legally extrinsic information triggers discriminatory constructions of criminality even when the legally relevant facts of a case point toward innocence.

b. Religion: Muslim, Christian, or control

For the new variable of implied religion, participants were randomly assigned to one of three conditions that either indirectly signaled the defendant's religious identity as Muslim or Christian (through his name<sup>136</sup> and

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131. The 281 participants in Study 3a were 43.1% male and 56.6% female, with one respondent who preferred not to specify gender. They ranged from 18 to 79 years old, with an average age of 35.7 years. Of 313 initial respondents, 32 were excluded based on prespecified criteria, as detailed in Appendix A below.

132. The 215 participants in Study 3b were 53% male and 46% female, with one respondent who preferred not to specify gender. They ranged from 21 to 74 years old, with an average age of 36.4 years. Of 244 initial respondents, 29 were excluded based on prespecified criteria, as detailed in Appendix A below.

133. See *supra* Part II.B.1.b.

134. See *supra* text accompanying notes 120-21. Measures at the end of Study 3's experiments confirmed that the participants generally perceived attempted terrorism as a much more severe crime than attempted trespass, regardless of the crime, law, or religion condition to which they were assigned. The *t*-tests showed that the mean *severity* rating for attempted *terrorism* was significantly higher than that of attempted *trespass* in Study 3a:  $t(280) = 60.88, p < 0.001, d = 7.28$ ; and in Study 3b:  $t(214) = 57.73, p < 0.001, d = 7.89$ .

135. See *supra* Part II.B.2.a; *supra* Figure 3.

136. Prior empirical studies have successfully manipulated names as a proxy for assumed race or religion to test for discrimination and implicit bias. See Marianne Bertrand & Sendhil Mullainathan, *Are Emily and Greg More Employable than Lakisha and Jamal?: A Field Experiment on Labor Market Discrimination*, 94 AM. ECON. REV. 991 (2004); Nosek et al., *supra* note 78.

a legally irrelevant passing reference to his place of worship), or presented a “control” defendant for whom no religion was signaled. Specifically, participants in the Muslim or Christian conditions were told that the defendant’s name was either Mohamed Farooq or Michael Fenton, respectively. In the attempted terrorism scenarios, they were told that the defendant had been distributing flyers about his grievances with the U.S. Postal Service at his mosque or church, respectively. In the attempted trespass scenarios, the participants were told that the defendant had been playing his regular weekend ball game in the park with friends from his mosque or church, respectively. The control conditions in both cases presented an unnamed defendant with no reference to his religious affiliation: In the terrorism scenario, the facts did not specify where the defendant had distributed the flyers; in the trespass scenario, the ball game in the park was described as just being with “friends.”

The choice to include a terrorism-related case was partly due to, not in spite of, the association between Islam and terrorism.<sup>137</sup> The U.S. justice system’s increasingly aggressive pursuit of inchoate crime under the auspices of the War on Terror<sup>138</sup>—coupled with the public’s feelings of hostility toward perceived outgroups such as defendants of color and Muslims<sup>139</sup>—highlights a critical need for identifying legal and psychological pathways toward equitable lay adjudication in cases involving terrorism allegations. To avoid playing too much into existing stereotypes, however, the attempted terrorism case presented in this study had nothing to do with Islam. The defendant was a disgruntled former postal employee whose strong views were focused on “corrupt” postal practices and the public’s right to free postage; and he had expressed sympathy in his diary for the infamous Unabomber—a white, non-Muslim, American terrorist who engaged in a bombing campaign to publicize political views.<sup>140</sup>

## 2. Study 3a results

### a. Interactions of law and religion

In Study 3a’s attempted terrorism scenario, neither the given legal standard nor the defendant’s implied religion exerted an independent influence on participants’ judgments. The one potential exception was a marginally

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137. *See supra* Part I.D.

138. *See supra* text accompanying notes 89-91.

139. *See supra* Parts I.C.2, I.D.

140. *See Unabomber (Ted Kaczynski)*, HISTORY, <https://perma.cc/3C3Q-NNE3> (last updated Aug. 21, 2018); *infra* Appendix B.

significant effect on the nonlegal measure of how participants generally felt toward the defendant: Those who applied the proximity test reported feeling more negatively toward the defendant than those who applied the substantial step test, regardless of the defendant's implied religion.<sup>141</sup>

Meanwhile, when considered in conjunction the law and religion variables revealed a significant pattern of interactions. Lay decisionmakers applying the proximity test judged the Muslim defendant more harshly on all direct measures of criminality. Specifically, the participants applying the proximity test to the Muslim defendant were generally more likely to construe him as having the requisite criminal intent to commit terrorism,<sup>142</sup> to construe his conduct as meeting the act requirement for attempt liability,<sup>143</sup> and to assign higher ratings on the continuous measure of guilt<sup>144</sup>—as compared with the participants judging either the Christian or the control defendant under the proximity test, or those judging any defendant (Muslim, Christian, or control) under the substantial step test.

Illustrating this pattern, Figure 5 below depicts the results from the continuous measure of perceived guilt. The graph shows that the given legal standard (substantial step or proximity) exerted no significant influence on judgments about either the Christian defendant or the control defendant (the dark gray line is flat and the downward slope of the light gray line is also not statistically significant between the two law conditions). For the Muslim defendant, however, there was a big jump in perceived guilt between

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141. ANOVA for the effect of *law* on participants' *feelings* toward defendant:  $F(1, 275) = 3.13$ ,  $p = 0.07$  (marginal),  $\eta^2_p = 0.01$ .

142. ANOVA for the interaction of *law* and *religion* on *intent*:  $F(2, 275) = 5.75$ ,  $p = 0.004$ ,  $\eta^2_p = -0.04$ . Results of follow-up *t*-tests: proximity-Muslim > proximity-Christian:  $t(85) = 3.15$ ,  $p = 0.002$ ,  $d = 0.68$  (corrected for violating Levene's test); proximity-Muslim > proximity-control:  $t(92) = 3.30$ ,  $p = 0.001$ ,  $d = 0.69$ ; proximity-Muslim > substantial step-Muslim:  $t(93) = 3.58$ ,  $p = 0.001$ ,  $d = 0.74$ ; proximity-Muslim > substantial step-Christian:  $t(94) = 2.85$ ,  $p = 0.005$ ,  $d = 0.59$ ; and proximity-Muslim > substantial step-control:  $t(90) = 1.95$ ,  $p = 0.055$  (marginal),  $d = 0.41$ .

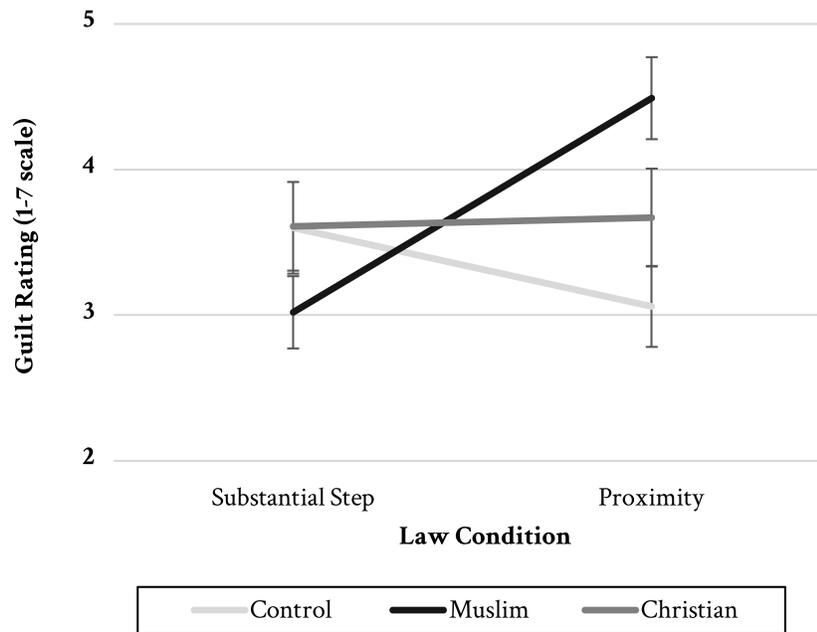
143. ANOVA for the interaction of *law* and *religion* on *act*:  $F(2, 275) = 4.57$ ,  $p = 0.011$ ,  $\eta^2_p = 0.03$ . Results of follow-up *t*-tests: proximity-Muslim > proximity-control:  $t(92) = 3.53$ ,  $p = 0.001$ ,  $d = 0.74$ ; proximity-Muslim > substantial step-Muslim:  $t(93) = 2.82$ ,  $p = 0.006$ ,  $d = 0.58$ ; proximity-Muslim > substantial step-Christian:  $t(94) = 2.10$ ,  $p = 0.038$ ,  $d = 0.43$ ; and proximity-Muslim > substantial step-control:  $t(90) = 2.03$ ,  $p = 0.046$ ,  $d = 0.43$ . There was no significant difference between the proximity-Muslim and the proximity-Christian conditions on determinations of the act element.

144. ANOVA for the interaction of *law* and *religion* on continuous measure of *guilt*:  $F(2, 275) = 3.14$ ,  $p = 0.002$ ,  $\eta^2_p = 0.04$ . Results of follow-up *t*-tests: proximity-Muslim > proximity-control:  $t(92) = 3.60$ ,  $p = 0.001$ ,  $d = 0.75$ ; proximity-Muslim > substantial step-Muslim:  $t(93) = 3.92$ ,  $p < 0.001$ ,  $d = 0.81$ ; proximity-Muslim > substantial step-Christian:  $t(94) = 2.11$ ,  $p = 0.037$ ,  $d = 0.44$ ; and proximity-Muslim > substantial step-control:  $t(90) = 2.11$ ,  $p = 0.038$ ,  $d = 0.44$ .

applications of the substantial step and proximity tests (the black line has a statistically significant upward slope between the two law conditions). The lay decisionmakers were thus significantly more likely to construe a seemingly Muslim defendant as criminal under the theoretically more defense-friendly proximity test.

**Figure 5**

Study 3a: Effect of Law and Religion on Perceived Guilt



*N* = 281. Participants judging the Muslim defendant under the proximity test were significantly more likely to conclude that he was guilty of attempted terrorism (top right of the black bar) than were the participants judging the defendant in all the other five combinations of religion and law conditions.

As expected given that the facts of the attempted terrorism case skewed toward innocence,<sup>145</sup> the participants in Study 3a generally delivered significantly more acquittals than convictions—*except* if they were judging the Muslim defendant under the proximity test. Figure 6 below demonstrates how the law and religion variables once again interacted to present a different pattern of verdicts only for participants applying the proximity test to the Muslim defendant.<sup>146</sup> The top graph in the figure shows that participants who applied the proximity test were significantly more likely to acquit the Christian and control defendants than to convict them, but there was no statistically significant difference between the number of convictions and acquittals for the Muslim defendant, even though the given evidence in this scenario pointed toward innocence. Furthermore, the lay decisionmakers were almost twice as likely to deliver a guilty verdict when applying the proximity test to the Muslim defendant than when applying the same test, on the same legally relevant facts, to the Christian and control defendants.<sup>147</sup> Meanwhile, the bottom graph in Figure 6 might appear to suggest that participants applying the substantial step test were more inclined to convict the Christian defendant than the Muslim and control defendants, but this difference was not statistically significant.

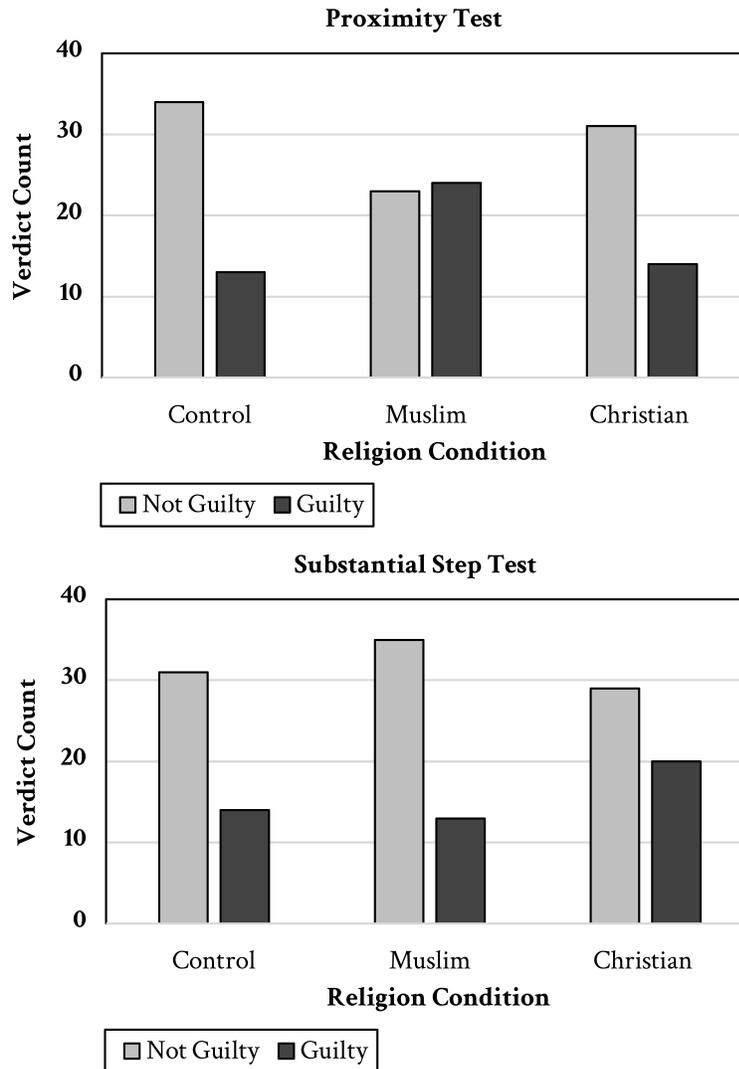
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145. See *supra* Part II.B.2.a.

146. Chi-square statistics for *verdict* skew:  $X^2(1, N = 281) = 25.71, p < 0.001$ .

147. Chi-square statistics for the interaction of *law* and *religion* on *verdict* for *Muslim* defendant:  $X^2(1, N = 281) = 5.74, p = 0.02$ ; of *law* and *religion* on *verdict* under *proximity* test:  $X^2(2, N = 281) = 6.42, p = 0.04$ .

**Figure 6**  
Study 3a: Effect of Religion on Verdicts



For the top graph,  $N = 139$ . For the bottom graph,  $N = 142$ . Even though the legally relevant facts of the attempted terrorism case skewed toward innocence, participants applying the proximity test were *not* significantly more likely to acquit than to convict the Muslim defendant (middle set of bars in the top graph), whereas participants in all the other five combinations of religion and law conditions were significantly more likely to acquit the defendant under the same evidence.

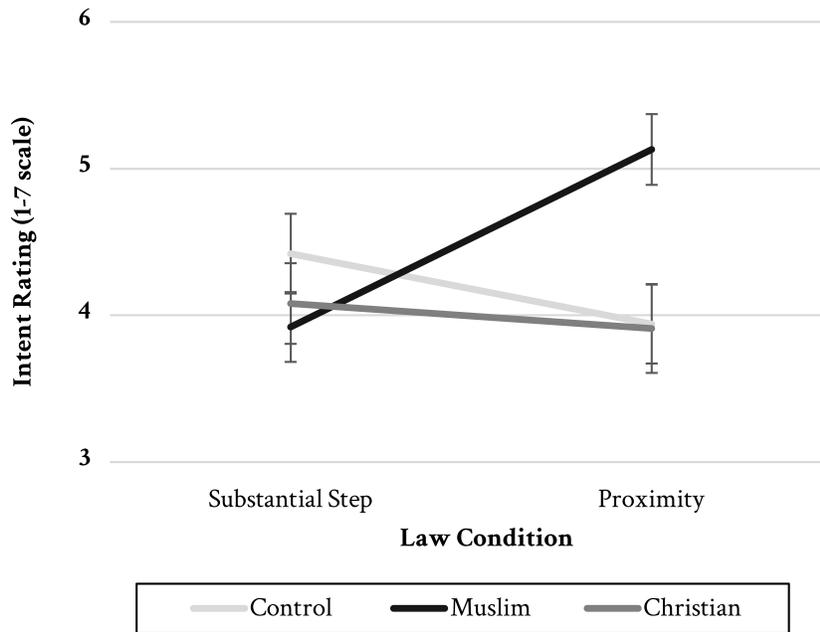
b. The centrality of intent

The results of Study 3a also indicated that constructions of the defendant's mental state may play a pivotal role in lay judgments about criminality. Regression analyses showed that regardless of which legal standard they were applying for the act element of attempt, the participants' determinations of the defendant's criminal intent significantly predicted their ultimate verdicts (whereas their determinations in regard to the act element did not).<sup>148</sup> In addition, the given legal standard for the act requirement of attempt (substantial step or proximity) interacted with the defendant's implied religion to influence lay perceptions of the defendant's mental state. Figure 7 below shows that participants were significantly more likely to construe the Muslim defendant as having had the intent to commit terrorism if they were applying the proximity test as opposed to the substantial step test, even though the mental state element of intent was held constant across both these law conditions.

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148. Regression results for the effect of *intent* on *verdict*;  $\beta = 1.64$ ,  $p = 0.02$ . For an explanation of the regression analysis performed here, see TABACHNICK & FIDELL, *supra* note 104, at 57.

**Figure 7**  
Study 3a: Interaction of Law and Religion on Perceived Intent



$N = 281$ . Participants judging the Muslim defendant under the proximity test were significantly more likely to construe the defendant as having the intent to commit terrorism (top right of the black bar) than participants in all the other five combinations of religion and law conditions.

### 3. Study 3b results

#### a. Effect of religion

In Study 3b, which presented participants with the attempted trespass case, the defendant's implied religion exerted a significant independent effect: Participants were significantly more likely to construe the defendant's conduct as meeting the act requirement of criminal attempt if they were judging the Christian defendant as compared with the Muslim defendant, and marginally more so as compared with the control defendant, regardless of which legal standard they were assigned to apply.<sup>149</sup>

<sup>149</sup> ANOVA for the effect of *religion* on *act*:  $F(2, 209) = 3.83, p = 0.023, \eta^2_p = 0.04$ .  
Results of follow-up *t*-tests: Christian > Muslim:  $t(142) = 2.82, p = 0.006, d = 0.47$ ;  
*footnote continued on next page*

This seeming disadvantage for the Christian defendant did *not*, however, carry over into the participants' determinations of criminal intent or the ultimate verdicts they delivered. Even though the lay decisionmakers were more likely to construe the Christian defendant as having engaged in the act of attempted trespass, they were not more likely to see him as having the requisite criminal intent for this offense, and were ultimately not more likely to convict him than the Muslim or the control defendant. This finding provides further evidence that perceptions of intent play a critical role in driving lay constructions of criminality, and raises the question of whether the decisionmakers granted the Christian defendant the benefit of the doubt regarding the intent behind his actions.

b. Interactions of law and religion

When the law and religion variables were considered together in the attempted trespass case, the defendant's implied religion operated in favor of the Christian defendant on nonlegal measures of criminality among participants who had applied the proximity test. Participants reported feeling more positively toward the Christian defendant,<sup>150</sup> and rated him as significantly more trustworthy,<sup>151</sup> when they were judging him under the proximity test, as compared with the control defendant under the proximity test or the Christian defendant under the substantial step test. Even with respect to their general feelings toward the U.S. criminal justice system's treatment of defendants, participants were significantly more likely to rate the system as being too harsh toward criminal defendants after they had applied the proximity test to the Christian defendant, as compared with having applied the proximity test to the control defendant or the substantial step test to the Christian defendant.<sup>152</sup>

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Christian > control:  $t(141) = 1.96, p = 0.05$  (marginal),  $d = 0.33$ . There was no significant main effect of law on this measure.

150. ANOVA for the interaction of *law* and *religion* on participants' *feelings* toward defendant:  $F(1, 209) = 3.98, p = 0.02, \eta^2_p = 0.04$ . Results of follow-up *t*-tests: Christian-proximity > control-proximity:  $t(67) = 2.06, p = 0.04, d = 0.50$ ; Christian-proximity > Christian-substantial step:  $t(70) = 2.92, p = 0.005, d = 0.70$ .

151. ANOVA for the interaction of *law* and *religion* on perceived *trustworthiness* of defendant:  $F(2, 209) = 2.89, p = 0.058$  (marginal),  $\eta^2_p = 0.03$ . Results of follow-up *t*-tests: Christian-proximity > control-proximity:  $t(67) = 2.06, p = 0.04, d = 0.50$ ; Christian-proximity > Christian-substantial step:  $t(70) = 2.92, p = 0.005, d = 0.70$ .

152. ANOVA for the interaction of *law* and *religion* on perceived *harshness* of justice system:  $F(1, 209) = 3.98, p = 0.02, \eta^2_p = 0.04$ . Results of follow-up *t*-tests: Christian-proximity > control-proximity:  $t(67) = 3.20, p = 0.002, d = 0.78$ ; Christian-proximity > Christian-substantial step:  $t(70) = 2.38, p = 0.02, d = 0.57$ .

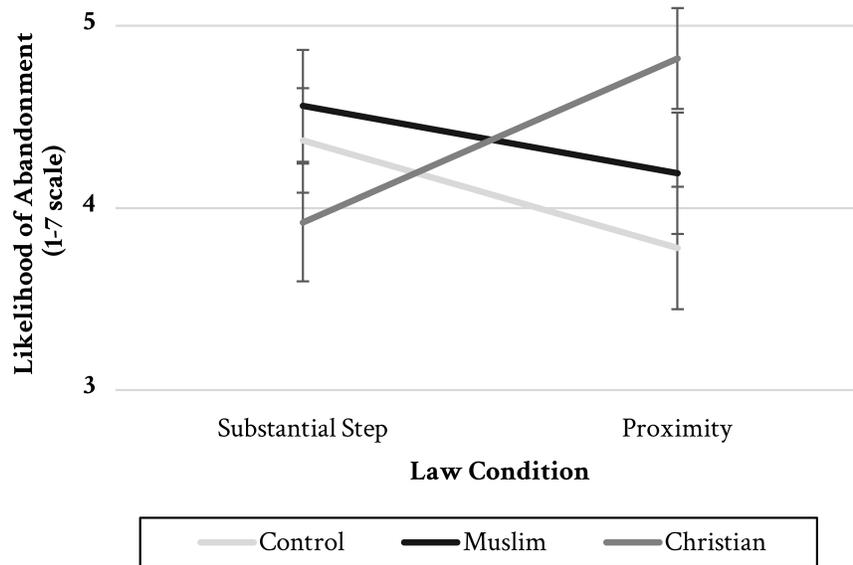
A bias in favor of the Christian defendant additionally emerged among participants in the proximity test condition with regard to attempt doctrine's abandonment defense. Approximately half of U.S. jurisdictions permit an affirmative defense to the crime of attempt if the defendant can show that he "abandoned his effort to commit the crime or otherwise prevented its commission, under circumstances manifesting a complete and voluntary renunciation of his criminal purpose."<sup>153</sup> When participants in the attempted trespass case were told to assume that the defendant *did* initially intend to commit trespass, and were then asked how likely he would have been to abandon the attempt had he not been intercepted by the police, those judging the Christian defendant under the proximity test were significantly more likely to assert that he would have abandoned the crime, as compared with those judging the control defendant under the proximity test or the Christian defendant under the substantial step test.<sup>154</sup> So, even when explicitly told to imagine that the defendant had the requisite intent to commit trespass, participants applying the proximity test were more likely to give the Christian defendant the benefit of the doubt in regard to a potential defense. These results are displayed in Figure 8 below.

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153. MODEL PENAL CODE § 5.01(4) (AM. LAW INST., Official Draft and Explanatory Notes 1985); see Paul R. Hoerber, *The Abandonment Defense to Criminal Attempt and Other Problems of Temporary Individuation*, 74 CALIF. L. REV. 377, 382 & n.15 (1986) (listing statutes from jurisdictions that have enacted an abandonment defense to criminal attempt).

154. ANOVA for the interaction of *law* and *religion* on likelihood of *abandonment*:  $F(1, 209) = 3.26$ ,  $p = 0.04$ ,  $\eta^2_p = 0.03$ . Results of follow-up *t*-tests: Christian-proximity > control-proximity:  $t(67) = 2.37$ ,  $p = 0.02$ ,  $d = 0.58$ ; Christian-proximity > Christian-substantial step:  $t(70) = 2.10$ ,  $p = 0.039$ ,  $d = 0.50$  (corrected for violating Levene's test).

**Figure 8**  
Study 3b: Interaction of Law and Religion  
on Perceived Likelihood of Abandonment



*N* = 215. Participants applying the proximity test were significantly more likely to give the Christian defendant the benefit of the doubt on his likelihood of abandoning criminal intent, as compared with participants judging the control defendant under the proximity test or the Christian defendant under the substantial step test. There were no statistically significant differences between the other five combinations of religion and law conditions on this measure.

The participants' greater inclination to accept the Christian defendant's abandonment defense under the proximity test is ironic given that jurisdictions that have adopted this test are generally less likely to recognize the abandonment defense.<sup>155</sup> Instead, jurisdictions that apply the substantial step test are the ones more likely to offer the abandonment defense, to offset that standard's theoretically more prosecution-friendly threshold for attempt liability.<sup>156</sup> In any case, and more importantly, a defendant's implied religion

155. See SANFORD H. KADISH ET AL., *CRIMINAL LAW AND ITS PROCESSES: CASES AND MATERIALS* 621-22 (9th ed. 2012).

156. See MODEL PENAL CODE § 5.01(4); KADISH ET AL., *supra* note 155, at 622; see also, e.g., H. Morley Swingle, *Criminal Attempt Law in Missouri: The Death of a Tale of Two Theories*, 56 J. MO. B. 144, 149-50 (2000).

should not influence lay decisionmakers' applications of an affirmative defense any more than it should their determinations of criminal liability.

#### D. Summary of Key Empirical Findings

This Article's studies reveal striking disconnects between legal expectations and lay applications of attempt laws. When the evidence in a given case was relatively ambiguous as to the defendant's culpability—as is likely in most cases that go to trial—lay decisionmakers applied the legal standards for attempt in a manner directly contrary to legislative intent: The defendant generally fared worse under the proximity test, even though it is theoretically intended to be more defense friendly than the substantial step test.<sup>157</sup> The experiments exhibited this effect regardless of whether the participants were presented with simplified (Study 1) or real, more detailed (Study 2) jury instructions, and even though the instructions were in a written format that the participants could refer back to during the decisionmaking process. Meanwhile, when the evidence in a case skewed toward either innocence or guilt, the given law for attempt made no significant difference to the outcome, across allegedly attempted crimes that were low, moderate, or high in severity.

The proximity test also turned out to be more vulnerable to biased applications based on legally irrelevant factors. Lay decisionmakers applying the proximity standard in an attempted terrorism case were significantly more likely to construe the thoughts and actions of the defendant as criminal when his name suggested that he was Muslim—even when the legally relevant evidence in the case skewed toward innocence and had nothing to do with Islam. Meanwhile, if the defendant was signaled to be Christian, participants applying the proximity test in an attempted trespass case expressed more positive feelings toward the defendant, rated him as more trustworthy, and perceived him as being more likely to abandon criminal intent.

The lay decisionmakers generally were more likely to find the Christian defendant to have crossed the act threshold for attempted trespass under either the substantial step or proximity test, but they were not more likely to perceive the Christian defendant as having the requisite criminal intent, and therefore were not more likely to convict him of the alleged attempt. The religion-based biases that emerged in these studies thus appeared to be bidirectional, but bore negative legal repercussions for only the Muslim defendant, not the Christian defendant. Finally, the results suggest that the mental state element of criminal intent played a critical role in lay determinations of attempt liability.

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157. See *supra* note 9 and accompanying text; *supra* text accompanying note 41.

### III. Explanations and Mechanisms

What led to the lay-legal disconnects exhibited in these studies? This Part mines the participants' quantitative and qualitative impressions of the substantial step and proximity tests—as well as the role played by the mental state element of intent—to gain insight into how lay decisionmakers construed these legal standards, and in what circumstances they were more (or less) prone to *misconstruing* them. The findings suggest two promising routes for bringing lay and legal understandings of the law into closer alignment: (1) exposing lay decisionmakers to different legal standards for the same offense to provide a comparative understanding of the law; and (2) isolating determinations of the act element of the charged offense from the mental state element. This Part also considers some psychological mechanisms that may explain the harsher and more biased judgments delivered under the proximity test as opposed to the substantial step test. It bears emphasizing, however, that this Article's studies did not directly test these proposed explanations; they are offered here as directions for future empirical work.

#### A. Lay-Legal (Mis)constructions

To get a baseline measure of how lay decisionmakers perceived the laws that they were assigned to apply, the participants were asked to rate their assigned standard for the act element of attempt on a seven-point scale ranging from “very defense-friendly (i.e., hard to convict under this test)” to “very prosecution-friendly (i.e., easy to convict under this test).” For both the proximity and substantial step standards in all three studies, mean ratings were at the midpoint of the scale: The participants on average perceived the act requirement for attempt liability as being “neutral between the prosecution and the defense,” regardless of which test they were considering.

In Study 2, the participants were presented with both the substantial step and the proximity test toward the end of the survey, and were asked to identify which test presents a lower bar for proving criminal attempt. Approximately half the participants selected the substantial step test as setting a lower bar for liability (the doctrinally correct answer), while the other half were split between selecting the proximity test or stating that both legal standards were the same.<sup>158</sup> In Study 3, the same question was posed without the option of stating that the two legal standards were the same. When participants were thus required to make a choice between the two tests, approximately two-

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158. Specifically, 47.4% of the participants selected the substantial step test, 27.0% selected the proximity test, and 25.6% said the legal standards were the same. Chi-square statistics for the difference between perceived thresholds for the legal standards:  $X^2(2, N = 215) = 19.32, p < 0.001$ .

thirds of them selected the doctrinally accurate answer.<sup>159</sup> So, when provided with both legal standards and required to focus on the differences between them and make a choice, lay decisionmakers were more likely to understand the laws as legislatively intended. That being said, approximately half of the participants in Study 2, and approximately one-third of the participants in Study 3, still construed the standards contrary to legal expectations.

To gain deeper insight into these lay constructions of the law, participants in Study 2 were asked to explain why they thought one test set a lower bar for liability than the other, or why they thought the two tests were the same. Among the approximately half of participants in Study 2 who correctly identified the substantial step standard as more prosecution friendly, most described its lower liability threshold by referencing the proximity test's higher threshold—thus illustrating the value of comprehension by comparison. Meanwhile, the approximately one-quarter of participants in Study 2 who perceived the two legal tests as being the same highlighted their common requirements (such as the shared intent element and the beyond a reasonable doubt standard of proof); described the differences between the tests as being merely semantic (“just worded differently but mean the same thing”); and noted that both tests were comparably vague (“equally subjective and tough to draw a line beyond which point a person would be considered guilty of a crime”).<sup>160</sup>

Among the approximately one-quarter of participants who flipped the conventional legal understandings of attempt law even when viewing the standards side by side (incorrectly perceiving the proximity test as presenting a lower threshold for liability), written responses revealed recurring misinterpretations of opaque concepts and terms within the language of the standards. For instance, the use of the terms “substantial” and “step” in the substantial step test, but not the proximity test, led some participants to believe that the proximity test sets a lower bar for liability because it “does not require an *actual step* in the completion of the crime”—or at least not one that has to be “substantial” (one participant reported that “the proximity standard has me believing that the steps taken by the defendant need not be as serious”). Such lay interpretations suggest that the MPC’s chosen language for the substantial step test, which was designed “to extend the criminality of attempts . . . by drawing the line between attempt and noncriminal preparation further away

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159. Specifically, 70.5% of the participants in Study 3a and 61.9% in Study 3b chose the substantial step test. Chi-square statistics for the difference between perceived thresholds for the legal standards in attempted terrorism case:  $X^2(1, N = 281) = 47.06, p < 0.001$ ; in attempted trespass case:  $X^2(1, N = 215) = 12.10, p < 0.001$ .

160. All participants’ quotes are on file with the Author. All italicized phrases in the quotes reflect the Author’s added emphasis.

from the final act,”<sup>161</sup> may in practice have the opposite effect of signaling a *higher* threshold for liability to jurors than the common law’s proximity test.

The language of the proximity test was also vulnerable to lay misconstruction. Some lay decisionmakers erroneously construed this test’s use of the word “tending”<sup>162</sup> as *lowering* the bar for prosecution by casting a broader net of criminal liability than the substantial step test. For example, one participant wrote:

[The proximity test] seems more relaxed or lenient in general to show that the defendant was essentially leading towards the act of the crime. This just has a gut instinct to me that it could be much easier to convince the jury that the defendant was going to commit the crime.

Some participants further suggested that the concept of proximity presents a lower liability threshold because it “is more open-ended” than the concept of “something substantial,” and “[t]here could be so many different reasons for a person to be in proximity of [a] crime than in a substantial step.” Picking up on both the ambiguity and vagueness of the proximity test, another participant wrote:

The proximity test leaves it very open to “how close is too close.” People have different definitions of “close enough.” Some might say thinking about it is close enough and some might say driving to the location of the crime is close enough. It’s very vague and open to whatever people deem “close.”

Several participants also suggested that the proximity test’s malleability makes it more susceptible to more lax and potentially unfair use by prosecutors.<sup>163</sup> Such comments presaged Study 3’s demonstration of the proximity test’s vulnerability to biased applications.<sup>164</sup>

## B. Problems of Proximity

The misconstructions of attempt law by participants in this Article’s studies stemmed from lay misunderstandings of both the substantial step and proximity tests. But the problematic consequences of harsher and more biased judgments emerged primarily in applications of the theoretically more

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161. 1 MODEL PENAL CODE & COMMENTARIES art. 5 intro. at 295 (AM. LAW INST., Official Draft and Revised Comments 1985).

162. *See supra* Part II.B.1.b.

163. For example, one participant commented: “The proximity standard makes it easier for the prosecution to prove guilt because [it] is more vaguely defined, and it makes it harder for the defendant to [show] their innocence.” Another wrote:

I feel the proximity standard is more lax. I feel that it could be a danger to petty crime situations. . . . I feel that an individual prosecuting another individual could use the lax rules of the proximity standard to prosecute someone because they are in a bad mood and want to take it out on someone.

164. *See supra* Part II.C.

defense-friendly proximity test.<sup>165</sup> One explanation for this could be that the proximity test's linguistic framing inadvertently "primes" concepts of nearness and threat.

Priming "cause[s] the activation of various complex social knowledge structures," making such concepts more accessible and thus influencing how people interpret subsequent information.<sup>166</sup> Studies have shown, for example, that exposing people to words associated with hostility increases that trait's accessibility, temporarily producing a "negative halo effect" that leads the primed individuals to interpret ambiguous behavior as more hostile.<sup>167</sup> The priming process is "capable of operating automatically without the individual's intent or awareness."<sup>168</sup> However, the strength of the effect depends on the relevance and applicability of the primed concepts to the person or situation under consideration—for instance, priming hostility would not influence judgments about clearly nonhostile behavior.<sup>169</sup>

#### 1. Priming closeness: an anchoring effect

Anchoring is "a special case of semantic priming" in which anchoring language "increases the activation of features that the anchor and target hold in common," thereby leading such features to be disproportionately retrieved.<sup>170</sup> For example, if people are primed with words associated with babies (such as diaper, rattle, or stroller), they may be more likely to perceive an ambiguously aged child as younger.

This type of anchoring effect could explain why the participants in this Article's studies were more likely to find a defendant guilty of criminal attempt under the proximity test than the substantial step test when considering the ambiguous factual scenarios in Studies 1 and 2. Given that jurors are generally

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165. See *supra* note 9 and accompanying text; *supra* text accompanying note 41.

166. See John A. Bargh, *Introduction to SOCIAL PSYCHOLOGY AND THE UNCONSCIOUS: THE AUTOMATICITY OF HIGHER MENTAL PROCESSES* 1, 4 (John A. Bargh ed., 2007); see also FISKE & TAYLOR, *supra* note 64, at 78; Ap Dijksterhuis et al., *Effects of Priming and Perception on Social Behavior and Goal Pursuit*, in *SOCIAL PSYCHOLOGY AND THE UNCONSCIOUS*, *supra*, at 51, 51-52.

167. See John A. Bargh & Paula Pietromonaco, *Automatic Information Processing and Social Perception: The Influence of Trait Information Presented Outside of Conscious Awareness on Impression Formation*, 43 *J. PERSONALITY & SOC. PSYCHOL.* 437, 447 (1982).

168. Bargh, *supra* note 166, at 4.

169. See FISKE & TAYLOR, *supra* note 64, at 79; E. Tory Higgins et al., *Category Accessibility and Impression Formation*, 13 *J. EXPERIMENTAL SOC. PSYCHOL.* 141, 150-53 (1977).

170. See Gretchen B. Chapman & Eric J. Johnson, *Anchoring, Activation, and the Construction of Variables*, 79 *ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES* 115, 118, 120 (1999); see also PAUL BREST & LINDA HAMILTON KRIEGER, *PROBLEM SOLVING, DECISION MAKING, AND PROFESSIONAL JUDGMENT: A GUIDE FOR LAWYERS AND POLICY MAKERS* 267 (2010).

not equipped with a comprehensive understanding of the legislative intent and policy rationales underlying the legal standard they are asked to apply, terms such as “tending toward,” “dangerously close,” and “very near” in jury instructions for the proximity test could act as anchors that skew judgments toward guilt by priming decisionmakers to see the defendant’s actions as coming closer to completing a crime. That is, by cognitively anchoring decisionmakers nearer to the endpoint of the allegedly attempted offense (by directing them to look backward to gauge what is left to do before the attempt becomes a completed crime),<sup>171</sup> the language of the proximity test may make them more likely to perceive the defendant’s conduct as having come closer to completion of the crime.

In contrast, the substantial step test anchors decisionmakers at the starting point of criminal action, directing jurors to begin there and gauge what the defendant has already done toward committing the allegedly attempted crime. Although the drafters of the MPC intended for this framing to set a lower bar for attempt liability, unintended anchoring effects could lead to the opposite outcome in lay applications of the law.

This anchoring hypothesis could also explain the fact that harsher outcomes under the proximity test were observed in Studies 1 and 2 only when the facts of the case were relatively ambiguous as to the defendant’s culpability, but not when the evidence more clearly pointed toward innocence or guilt. Anchoring is a type of heuristic—a mental shortcut that decisionmakers tend to employ in conditions of uncertainty<sup>172</sup>—and a criminal case with ambiguous evidence presents uncertainty. Thus, the participants may have been more susceptible to the anchoring heuristic when evaluating the ambiguous facts of the attempted arson case in Studies 1 and 2. But when the legally relevant evidence more clearly pointed toward innocence or guilt—as in the attempted arson case in Study 1 or the attempted terrorism and trespass cases in Study 2—the participants had less need to rely on a heuristic, which could be why the legal standard did not exert a significant effect.<sup>173</sup> This changed in Study 3, however, when the defendant’s religion was brought into the mix, as discussed next.

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171. See 1 MODEL PENAL CODE & COMMENTARIES § 5.01 cmts. 5-6, at 322-23 (AM. LAW INST., Official Draft and Revised Comments 1985).

172. See *supra* Part I.C.2.

173. See *supra* Parts II.A-B.

2. Priming peril: bidirectional biases

a. The biasing trajectory of threat

If the proximity test triggered the proposed anchoring heuristic in Studies 1 and 2 only when case facts were ambiguous, how does the priming hypothesis account for the harsher outcomes for the Muslim defendant under this test in Study 3a's terrorism case, in which the facts pointed toward innocence?<sup>174</sup> The data suggest that two legally extrinsic factors worked in conjunction with the proximity test to give rise to this effect: the nature of the alleged crime and the defendant's implied religion. Both of these factors had something in common with the language of the proximity test: the potential to invoke feelings of threat, which can trigger increased punitiveness, stereotyping, and bias.

Just as the "tending toward," "dangerously close," and "very near" language of the proximity test may have primed feelings of closeness to the allegedly intended crime, these terms may also have primed feelings of peril.<sup>175</sup> Psychologists have found that "manipulations of threat serve to increase motivated close-mindedness and, in so doing, to increase the psychological affinity for politically conservative opinions and identifications"<sup>176</sup>—which are linked to greater punitiveness.<sup>177</sup> The proximity test's potential priming of peril may thus have influenced the likelihood of lay decisionmakers finding the defendant guilty of criminal attempt, depending on the extent of threat they a priori associated with the defendant and the allegedly attempted crime in question.

Terrorism is a particularly high-stakes crime, the very objective of which is to generate fear. Under the case facts presented in Study 3a, the successful completion of the allegedly attempted terrorism would have caused the death of at least twenty people.<sup>178</sup> Notably, participants who applied the proximity test in that study were inclined to feel more negatively toward the defendant

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174. See *supra* Part II.C.2.

175. See Tim Dalgleish, *An Investigation of the Effect of Threat-Related Priming on Memory for Threat-Related Material in Normal Subjects*, 14 IR. J. PSYCHOL. 561 (1993).

176. Hulda Thórisdóttir & John T. Jost, *Motivated Closed-Mindedness Mediates the Effect of Threat on Political Conservatism*, 32 POL. PSYCHOL. 785, 804 (2011); see also Christopher J. Bryan et al., *Political Mindset: Effects of Schema Priming on Liberal-Conservative Political Positions*, 45 J. EXPERIMENTAL SOC. PSYCHOL. 890, 893 (2009); John T. Jost et al., *Are Needs to Manage Uncertainty and Threat Associated with Political Conservatism or Ideological Extremity?*, 33 PERSONALITY & SOC. PSYCHOL. BULL. 989, 1004 (2007).

177. See, e.g., Monica M. Gerber & Jonathan Jackson, *Authority and Punishment: On the Ideological Basis of Punitive Attitudes Towards Criminals*, 23 PSYCHIATRY PSYCHOL. & L. 113, 116 (2016) ("The conservative political right . . . believes that . . . harsh punishment can bring offenders back on the right track.").

178. See *infra* Appendix B.

than those who applied the substantial step test, regardless of the defendant's implied religion.<sup>179</sup> This finding, although only marginally significant, provides some indication that the proximity test may have primed a sense of peril that exacerbated the threat already associated with terrorism.

Adding a seemingly Muslim defendant into the fact pattern likely further intensified that feeling of peril, leading to the observed biases in legal outcomes. Threat generally tends to trigger negative reactions toward political, ethnic, or religious outgroups.<sup>180</sup> Moreover, priming can activate not only concepts like "nearness" and "peril" but also stereotypes associating certain social groups with these concepts.<sup>181</sup> Stereotypes are "beliefs about the characteristics of members of a group" that "occur in the thoughts of individuals or in the 'consensus' of an entire society."<sup>182</sup> And as discussed in Part I above, Muslims have increasingly come to be stereotyped in public and political discourse as "terrorists": foreign, disloyal, and imminently threatening.<sup>183</sup> Empirical studies have illustrated striking implications of this association. Experiments using the shooter bias paradigm,<sup>184</sup> for instance, have shown that displaying the words "Koran," "veil," and "Muhammad" makes participants quicker to shoot at even non-Arab and non-Muslim targets: "[T]he mere accessibility of these subjectively threatening social categories facilitates aggressive responses even toward targets that do not clearly belong to these categories."<sup>185</sup>

Stereotyping and bias are common cognitive responses not only to perceived peril but also to uncertainty.<sup>186</sup> Thus, even though the evidence in Study 3a's attempted terrorism case skewed toward innocence, the proximity test's combination of opaque and threatening language may have put a

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179. See *supra* text accompanying note 141.

180. See FISKE & TAYLOR, *supra* note 64, at 311; C. David Navarrete et al., *Anxiety and Intergroup Bias: Terror Management or Coalitional Psychology?*, 7 GROUP PROCESSES & INTERGROUP REL. 370, 371 (2004).

181. See Bargh, *supra* note 166, at 4.

182. CHARLES G. LORD, SOCIAL PSYCHOLOGY 299 (1997) (quoting Steven L. Neuberg, *Expectancy-Confirmation Processes in Stereotype-Tinged Social Encounters: The Moderating Role of Social Goals*, in 7 THE ONTARIO SYMPOSIUM 103, 105 (Mark P. Zanna & James M. Olson eds., 1994)); see also FISKE & TAYLOR, *supra* note 64, at 303-34; Patricia G. Devine, *Stereotypes and Prejudice: Their Automatic and Controlled Components*, 56 J. PERSONALITY & SOC. PSYCHOL. 5, 5 (1989).

183. See Saito, *supra* note 85, at 12; *supra* Part I.C.; see also Wing, *supra* note 85, at 723.

184. See *supra* text accompanying notes 69-70.

185. Mange et al., *supra* note 81, at 553-55 (citation omitted); see also Unkelbach et al., *supra* note 80.

186. See *supra* Part I.C.2.

defendant stereotypically associated with a threatening outgroup (Muslims)—and accused of a particularly threatening crime (attempted terrorism)—at heightened risk for biased adjudication.

The participants' self-reported attitudes toward Islam and Muslims after judging the attempted terrorism case under the proximity test support the suggestion that this test's potential priming of threat activated antagonism toward the Muslim defendant. Lay decisionmakers who had applied the proximity test to the Muslim defendant thereafter expressed significantly more hostile attitudes toward Islam than those who had applied the proximity test to the Christian defendant.<sup>187</sup> Furthermore, the participants who had applied the proximity test expressed significantly more agreement with negative statements about Islam if they had judged the Muslim defendant than if they had judged the Christian defendant charged with the same crime. One of these statements was: "Islam is a dangerous religion."<sup>188</sup> Another statement was: "Just to be safe, it is important to stay away from places where many Muslims could be."<sup>189</sup> Meanwhile, participants who applied the substantial step test to the Muslim or Christian defendant in the attempted terrorism case did not exhibit these effects in the above-described attitudinal measures.

The explicit expressions of anti-Islam and anti-Muslim sentiments among participants in the Muslim-proximity test condition are somewhat surprising given prior psychological findings that overt expressions of prejudice have become "generally taboo, and decision makers . . . strenuously disavow the use of group-based stereotypes to make judgments that affect others."<sup>190</sup>

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187. ANOVA for the interaction of *law* and *religion* on general attitude toward Islam:  $F(2, 275) = 4.26, p = 0.015, \eta^2_p = 0.03$ . Results of follow-up *t*-test: proximity-Christian > proximity-Muslim:  $t(90) = 3.10, p = 0.003, d = 0.65$ .

It is highly unlikely, but still statistically possible, that the participants randomly assigned to the Muslim defendant and the proximity test happened to come into the study with significantly more negative attitudes toward Islam than those assigned to all the other five combinations of religion and law conditions, such that their attitudes influenced their legal judgments rather than the legal standard and religion of the defendant influencing their attitudes toward Islam. This slim possibility could be tested by measuring participants' attitudes toward Islam *before* they delivered judgments in the case, but such an approach would carry the confounding risks of priming biases through the preliminary questions about negativity toward Islam and making participants more cognizant that religion-based bias is being tested.

188. ANOVA for the interaction of *law* and *religion* on perceived dangerousness of Islam:  $F(2, 275) = 3.38, p = 0.036, \eta^2_p = 0.02$ . Results of follow-up *t*-test: proximity-Muslim > proximity-Christian:  $t(86) = 2.05, p = 0.043, d = 0.44$  (corrected for violating Levene's test).

189. ANOVA for the interaction of *law* and *religion* on agreement with *avoiding Muslims* under proximity test:  $F(2, 275) = 4.92, p = 0.008, \eta^2_p = 0.04$ . Results of follow-up *t*-test: proximity-Muslim > proximity-Christian:  $t(81) = 2.08, p = 0.04, d = 0.46$  (corrected for violating Levene's test).

190. Spencer et al., *supra* note 64, at 51.

Furthermore, psychologists have found that decisionmakers can regulate the influence of legally irrelevant and biasing factors on their judgments and behavior when they are aware of and motivated to suppress the potential bias.<sup>191</sup> But were the decisionmakers in this Article's studies aware of and motivated to suppress religion-based discrimination?

Manipulation checks indicated that the participants assigned to judge the Muslim defendant were more likely to be consciously aware of the defendant's implied religion than those assigned to the Christian or control defendants, but they were still more likely to succumb to biased decisionmaking when judging the Muslim defendant under the proximity test. One possible explanation for this could be that the particular opacity<sup>192</sup> and threat<sup>193</sup> presented by the language of the proximity test exerted a greater depleting effect on the decisionmakers' cognitive resources than did the substantial step test. Studies have shown that cognitive load interferes with the ability to process information in a controlled manner, making people more vulnerable to stereotyping and other mental shortcuts.<sup>194</sup>

The high-stakes nature of the charged crime of attempted terrorism may have further interfered with the participants' ability—or willingness, as discussed just below—to consciously suppress expressions of Islamophobia. This would explain the lack of directly biased responses against the Muslim defendant in the more minor attempted trespass case, even among participants applying the proximity test. In the case of this less severe crime, participants may have been more able or willing to guard against the expression of anti-Muslim bias in their legal judgments.

With regard to the motivation to self-regulate against expressing bias, empirical findings on anti-Muslim bias have been more mixed as compared with research on other biases, like those based on race or gender. One study directly measuring implicit attitudes toward Arab Muslims uncovered a “strong implicit preference for White over Arab-Muslim names, whereas the magnitude of such a bias was substantially reduced when assessed by explicit measures.”<sup>195</sup> However, another study that drew upon a large number of implicit association tests found that “explicit preferences for other [non-Arab,

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191. See Patricia G. Devine et al., *The Regulation of Explicit and Implicit Race Bias: The Role of Motivations to Respond Without Prejudice*, 82 J. PERSONALITY & SOC. PSYCHOL. 835, 836 (2002); Sang Hee Park et al., *Implicit Motivation to Control Prejudice Moderates the Effect of Cognitive Depletion on Unintended Discrimination*, 26 SOC. COGNITION 401, 415 (2008).

192. In their written responses comparatively evaluating both legal standards, some participants noted that the proximity test was more “hazy” and “vaguely defined” than the substantial step test. See *supra* Part III.A.

193. See *supra* text accompanying note 175.

194. See Spencer et al., *supra* note 64, at 52-53.

195. Park et al., *supra* note 78, at 42.

non-Muslim] people compared to Arab-Muslims exceeded implicit preferences”—a pattern that defied almost all other tested topics.<sup>196</sup> Recognizing that Muslims are “a new target of intense interest amid concerns about terrorism,” the researchers suggested that in such circumstances, “explicit self-regulation may not always seek to suppress automatic responses and, in some cases, might even strengthen them.”<sup>197</sup>

Additional empirical work is needed to test the potential explanations for this Article’s findings. Did the combination of the proximity test and the Muslim defendant in the attempted terrorism scenario make lay decisionmakers less able to guard against automatically triggered biases, or did these variables generate particularly strong punishment motives that consciously trumped people’s general desire to appear unbiased? Experiments using both implicit and explicit attitudinal and behavioral measures are also needed to directly investigate whether, when, and how the language of the law can differentially anchor judgments of criminality or prime threat in ways that lead to lay misconstruction and bias. One methodological approach could be to employ a “think aloud” protocol, in which “participants are explicitly instructed to focus on the [decisionmaking] task while thinking aloud . . . to verbalize their thoughts” in real time, rather than describing or explaining their thinking after the fact.<sup>198</sup> If the results of such studies substantiate this Article’s hypotheses about the priming effects of the proximity test, this would provide crucial guidance to legislatures and courts on how best to revise statutes and jury instructions, as discussed in Part IV below.

b. The benefit of the doubt

In contrast to the discriminatory treatment of the Muslim defendant under the proximity test in the attempted terrorism case, participants assigned to apply this test in the attempted trespass case appeared to extend the Christian defendant the benefit of the doubt on psychological constructs of criminality. Lay decisionmakers expressed feeling more positively toward the Christian defendant charged with attempted trespass, and they rated him as more trustworthy and more likely to redeem himself, if they judged him under the proximity standard as opposed to the substantial step standard.<sup>199</sup> If the

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196. See Nosek et al., *supra* note 78, at 52, 57-58. The one other exception had to do with body weight. See *id.* at 57-58 (“[E]xplicit preferences for thin people compared to fat people slightly exceeded implicit thin preferences . . .”).

197. *Id.* at 52-53; see also *supra* Part I.D.

198. See K. Anders Ericsson & Herbert A. Simon, *How to Study Thinking in Everyday Life: Contrasting Think-Aloud Protocols with Descriptions and Explanations of Thinking*, 5 MIND CULTURE & ACTIVITY 178, 181 (1998).

199. See *supra* Part II.C.3.b.

proximity test primes threat, as proposed above, why would decisionmakers who applied it exhibit this sympathetic response toward the defendant who was signaled to be Christian?

Whether the proximity test's potential priming of threat influenced lay judgments in these studies seemed to depend not on the severity of the attempted crime or the defendant's implied religion per se, but rather on the interaction of these two variables. Stereotypic "schemas" may have led the decisionmakers to more readily associate certain defendants, based on legally extrinsic demographic characteristics, with certain offenses. Schemas are "mental maps or blueprints" that reflect "assumptions, expectations, and general world knowledge that [people] bring to bear" in comprehension and judgments.<sup>200</sup> Schemas thus reflect how people tend to think about particular crimes and groups, and they may be based on legally irrelevant stereotypes.<sup>201</sup> In this Article's studies, the interaction between the defendant's implied religion and the nature of his alleged crime may have triggered stereotypic schemas that led the decisionmakers to more easily associate the Muslim defendant with an attempted terrorist attack (as in Study 3a) and the Christian defendant with a ball game in the park that leads to an attempted trespass (as in Study 3b)—even though the legally relevant facts in both cases had nothing to do with the defendants' respective religions.

In the attempted terrorism case, the defendant's alleged motive was specific to his personal experience working at the U.S. Postal Service, his strong feelings about the right to free postage, and his sympathy with the Unabomber (a white, non-Muslim terrorist).<sup>202</sup> But given the stereotypical associations of Islam with terrorism in media, popular culture, and political discourse,<sup>203</sup> the proximity test's priming of threat coupled with a seemingly Muslim defendant may have activated these negative associations in the participants' minds.

Meanwhile, the Christian defendant in the attempted trespass case may have triggered a more benign stereotypic schema that ultimately worked in his

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200. See LORD, *supra* note 182, at 56-57; see also Marilyn B. Brewer & Rupert J. Brown, *Intergroup Relations*, in 2 THE HANDBOOK OF SOCIAL PSYCHOLOGY 554, 569-70 (Daniel T. Gilbert et al. eds., 4th ed. 1998); Eliot R. Smith, *Mental Representation and Memory*, in 1 THE HANDBOOK OF SOCIAL PSYCHOLOGY, *supra*, at 391, 404-07.

201. See, e.g., FISKE & TAYLOR, *supra* note 64, at 303-34 (discussing how schemas can be based on stereotypes); Eberhardt et al., *supra* note 71, at 888-89 (demonstrating bidirectional stereotypic associations between blacks and crime); Cecilia L. Ridgeway & Tamar Kricheli-Katz, *Intersecting Cultural Beliefs in Social Relations: Gender, Race, and Class Binds and Freedoms*, 27 GENDER & SOC'Y 294, 313-14 (2013) (observing that interactional "binds and freedoms" of gender, race, and class "not only vary by the content of the contradicting stereotypes but also depend on the context and its cultural meaning").

202. See *supra* text accompanying note 140.

203. See Joo, *supra* note 85, at 32; Saito, *supra* note 85, at 12-15; Wing, *supra* note 85, at 723; see also *supra* Part I.D.

favor. Participants may have adopted a “boys will be boys” approach toward the churchgoing defendant playing a regular ball game in the park, which would help explain why they construed this defendant as more likely to have met the act requirement of attempted trespass than the Muslim and control defendants, but not more likely to have had the requisite criminal intent to convict him of attempt. Even on nonlegal measures of criminality, the Christian defendant presented an exception to the general finding that lay decisionmakers applying the proximity test reached harsher judgments. Participants rated this defendant generally more positively, perceived him as being more trustworthy, and were more likely to find that he had abandoned his criminal intent, after having evaluated him under the proximity test as opposed to the substantial step test.<sup>204</sup>

Perhaps the Christian defendant’s implied religion and minor trespass crime were perceived as so *unthreatening* that the peril framing of the proximity test actually made participants feel particularly *disinclined* to impose criminal liability, even though they saw this defendant as more likely to have met the act requirement of attempted trespass. Some support for this interpretation is seen in the finding that participants were significantly more likely to state that the U.S. justice system is generally too harsh toward criminal defendants if they had judged the Christian defendant in the attempted trespass case under the proximity test as opposed to the substantial step test.<sup>205</sup>

### C. The Action of Intent

Although this research was initially geared toward examining the risks engendered by opaque legal standards for the act requirement of criminal attempt, the experimental results revealed that the mental state requirement of intent played a key role in the observed legal misunderstandings and biases. Below, I discuss the overlaps that emerged between lay determinations of act and intent, and how constructions of intent may have served as a vehicle for discriminatory decisionmaking.

#### 1. Act-intent entanglements

The extent to which a legal standard for the act requirement of attempt explicitly references the mental state requirement of the crime appeared to play a role in lay confusion about the law. Following the general order of pattern jury instructions on criminal attempt, this Article’s studies first provided participants with the mental state standard of intent, followed by a

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204. *See supra* text accompanying notes 150-51, 154.

205. *See supra* text accompanying note 152.

random assignment to either the substantial step or proximity test for the act element.<sup>206</sup> In addition, both the substantial step and proximity instructions used in Studies 2 and 3 began by reiterating that the defendant must have intentionally acted toward committing the allegedly attempted offense.

However, the substantial step test then further reinforces the intent requirement by defining its requisite “step” in terms of the defendant’s purpose.<sup>207</sup> The stated goal of the drafters of the MPC in adopting this approach was to make the crime of attempt “essentially one of criminal purpose implemented by an overt act strongly corroborative of such purpose.”<sup>208</sup> Critics have asserted that the substantial step test thereby effectively “eviscerates the protective function” of the criminal law’s act requirement because “under the Model Penal Code definition, a conviction can be based solely upon evidence of what was in the defendant’s mind.”<sup>209</sup>

In the lay applications of the laws in these studies, however, the substantial step test’s emphasis on intent actually seemed to lead decisionmakers to misinterpret it as the more difficult standard to meet. This may have been because this test’s highlighting of the defendant’s mental state when defining the act element of attempt reminded decisionmakers that there are two thresholds to cross—both act and intent—in order to find a defendant guilty.

In contrast, a number of participants misconstrued the proximity test as presenting just a single threshold for attempt liability (despite the legal instructions to the contrary). Some lay decisionmakers erroneously perceived the act requirement of the proximity test as an *alternative* to the mental state requirement of intent, perhaps because the defendant’s requisite mental state is not as explicitly reinforced in the language of the proximity test as it is in the substantial step test. For instance, one participant stated: “Proximity has a lower bar because the prosecution can charge you with attempted bank robbery if you drove to the bank. Whereas with the other [substantial step] standard you have to *at least prove that I intended* to rob the bank in the first place.”

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206. See *supra* Parts II.A.1.b, II.B.1.b, II.C.1.a.

207. See *supra* Part I.A.

208. 1 MODEL PENAL CODE & COMMENTARIES art. 5 intro. at 295 (AM. LAW INST., Official Draft and Revised Comments 1985).

209. Hasnas, *supra* note 39, at 765.

Others mistook intent to be *sufficient* for criminal liability under the proximity test because this standard does not include language about the defendant having to take a concrete “step” toward the crime in terms of conduct. One participant, for example, said:

I would think the proximity standard as explained would [present a lower bar] as it seems like the person *would just need to have intent* to commit the crime, even if he or she doesn't do it, while the [substantial step] standard would seem to necessitate he or she *actually doing something* that would incriminate them.

It is ironic that some of these lay decisionmakers construed the proximity test as imposing liability based solely on criminal intent, given that legal scholars have actually criticized the substantial step test for presenting that exact risk.

Importantly, when intent was taken out of the equation, lay decisionmakers were more accurately able to decipher how near or far from the completed crime the substantial step and proximity tests draw their respective lines of liability. The participants in Study 3 were asked at what stage of conduct the act requirement is met once the defendant's intent to commit the allegedly attempted crime has been proven. This is the only measure on which the lay decisionmakers in this research exhibited a doctrinally accurate understanding of the standards for the act element of attempt even when presented with just one standard in isolation. Regardless of whether they had been assigned to the attempted terrorism or trespass case, participants applying the proximity test correctly rated the bar for criminal liability as significantly higher than those applying the substantial step test when the defendant's criminal intent was not in doubt.

While intent thus seemed to play a prominent (and sometimes misleading) role in lay constructions of the act requirement of attempt, the act element also appeared to influence determinations of intent in some circumstances. Lay decisionmakers construed the Muslim defendant as significantly more likely to have the requisite criminal intent for attempted terrorism if they had been assigned to apply the proximity test as opposed to the substantial step test—even though the intent standard for the mental state element of attempt remains the same across both these tests.

The complicated relationship between lay determinations of the mental state and act requirements of criminality uncovered in the studies is consistent with the view that determinations of intent and action are likely to bidirectionally influence each other. Substantive criminal law's division of offenses into distinct mental state and act elements may thus be a legal fiction that does not reflect how the human mind generally constructs culpability. If the legal system

does indeed want jury decisionmaking to follow the elemental manner in which crimes are legislatively defined, it could consider more concrete ways in which to guide the cognitive processes of lay decisionmakers—such as the use of special verdicts, as discussed in Part IV below.<sup>210</sup>

## 2. Intent as a vehicle for discrimination

This Article's findings further suggest that lay constructions of criminal intent may inadvertently operate as a vehicle for discriminatory decisionmaking. Recall that the patently race-based application of attempt law in *McQuirter v. State* was effectuated through the mental state element of the charged attempt: The court held that a black defendant's race was relevant to assessing his intent to rape a white woman.<sup>211</sup> Although courts no longer permit such considerations,<sup>212</sup> that may not stop legally extrinsic factors from covertly influencing jurors' determinations of criminal intent, even without their own awareness.

The religion-based biases that emerged in determinations of criminal intent in these studies appeared to run in two directions: either against or in favor of the defendant, depending on his alleged crime and implied religion. When applying the proximity test in the attempted terrorism case, participants were more likely to construe the Muslim defendant as meeting both the intent and act requirements—and were thus more likely to convict him of the charged attempt.<sup>213</sup> By contrast, in the attempted trespass case, participants were more likely to construe the Christian defendant as meeting the act requirement but *not* the intent requirement—and were therefore *not* more likely to ultimately convict him.<sup>214</sup> Even when told to assume that the defendant *did* intend to commit trespass, participants applying the proximity test were more likely to say that the Christian defendant would have abandoned his criminal intent before completing the crime.<sup>215</sup>

Prior psychology research has found that lay decisionmakers are unknowingly more likely to ascribe criminal intent to defendants who are perceived to have a negative character or motive, even when these factors are irrelevant to the legal determination at hand.<sup>216</sup> The above-discussed negative associations

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210. See *infra* Part IV.A.1.b.

211. See 63 So. 2d 388, 388-90 (Ala. Ct. App. 1953); see also *supra* text accompanying note 75.

212. See *supra* text accompanying note 76.

213. See *supra* Part II.C.2.a.

214. See *supra* Part II.C.3.a.

215. See *supra* Part II.C.3.b.

216. See Janice Nadler & Mary-Hunter McDonnell, *Moral Character, Motive, and the Psychology of Blame*, 97 CORNELL L. REV. 255, 258 (2012); see also Joshua Knobe, *The Concept of Intentional Action: A Case Study in the Uses of Folk Psychology*, 130 PHIL. *footnote continued on next page*

between Muslims and terrorism,<sup>217</sup> as well as between criminality and race more broadly,<sup>218</sup> may have increased the likelihood of lay adjudicators associating a defendant named Mohamed with bad character and motives—and thus with a greater likelihood of criminal intent, and ultimately guilt.<sup>219</sup>

#### IV. Paths Forward

This final Part proposes some concrete steps that judges, legislators, and attorneys could consider to bridge lay-legal disconnects of the kind demonstrated in this Article's studies. Ambiguity creates fertile ground for erroneous and discriminatory decisionmaking,<sup>220</sup> and these studies show how the law itself can be a source of opacity that triggers misunderstanding and bias in lay adjudication.<sup>221</sup> Therefore, identifying, testing, and revising unclear or misleading language in legal standards and jury instructions may help improve the doctrinal accuracy and fairness of lay adjudication. This Part also highlights further psychological questions and examples of opacity in other areas of criminal and civil law that are ripe for empirical investigation.

##### A. Potential Reforms

One potentially effective way to begin addressing lay misconstructions of law would be to target points in the legal process at which breakdowns in lay-legal communication are likely to occur. To this end, the interventions I propose in this Subpart unsettle the typical ways in which legal standards, jury instructions, and verdicts in criminal cases are crafted and conveyed. New initiatives in these arenas could help both to clarify the law and to curtail decisionmaking biases that can stem from the law.

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STUD. 203, 209 (2006); Janice Nadler, *Blaming as a Social Process: The Influence of Character and Moral Emotion on Blame*, 75 LAW & CONTEMP. PROBS., no. 2, 2012, at 1, 2, 28-29.

217. *See supra* Part I.D.

218. *See supra* Part I.C.2.

219. *Cf.* Avani Mehta Sood, Opinion, *Was Revenge a Hidden Rationale for Torture?*, L.A. TIMES (Dec. 23, 2014, 5:37 PM), <https://perma.cc/RSC3-J2MA> (“The widespread rhetoric of evil and fear surrounding terrorism suspects has created a large risk that individuals who are detained for interrogation will automatically be seen as inherently bad.”).

220. *See supra* Part I.C.

221. *See supra* Part II.

1. Conveying the law

a. “Comparative” jury instructions

Offering a novel, doctrinally based proposal to the large body of existing empirical research on jury instructions,<sup>222</sup> this Article’s experimental findings suggest that it may be worth reconsidering the traditional approach of instructing jurors on only the law of their own jurisdiction. In other words, lay adjudication may benefit from “comparative” jury instructions—instructions that offer comparisons between legal standards from different jurisdictions. In a case involving criminal attempt, for example, jurors in a jurisdiction that uses the proximity test could be informed about the substantial step test as well, and instructed on how the two standards differ. This would be a means of articulating the applicable law by contrasting it with an alternative—to clarify for jurors what the law in their jurisdiction is by demonstrating what it is *not*. It would be similar to trial attorneys’ strategies of explaining burdens of proof to jurors by reference to the different standards in criminal versus civil cases.<sup>223</sup>

Comparative instructions would also be consistent with the way law professors train their students—who are, after all, also transitioning from being lay to legal actors, albeit with far more lengthy and intensive training than jurors. Borrowing further from legal pedagogy, courts could also instruct jurors on the policy goals and rationales underlying the legal standards that they are being asked to apply, in order to provide doctrinal context for the relevant thresholds for liability. In civil law contexts, researchers have found that “when jurors are . . . treated as active co-participants rather than passive sponges, they appear to be willing and able to respond more appropriately to the dictates of legal rules.”<sup>224</sup>

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222. See sources cited *supra* note 54.

223. For instance, defense attorneys in criminal trials sometimes explain the government’s burden of proof beyond a reasonable doubt to the jury by explicitly differentiating it from the lower preponderance of the evidence standard that applies in civil cases, see James H. Seckinger, *Closing Argument*, 19 AM. J. TRIAL ADVOC. 51, 58 (1995), while plaintiffs’ attorneys in civil trials might explicitly juxtapose the higher criminal standard with the lower civil burden that they need to meet, see 8 TOM RILEY & PETER C. RILEY, CIVIL LITIGATION HANDBOOK app. G at 929 (2015 ed.) (listing “[d]istinguish civil from criminal burden” on a checklist of points to be made during the opening statement of a personal injury trial); John S. Worden, *The Beast of Burden*, in FROM THE TRENCHES: STRATEGIES AND TIPS FROM 21 OF THE NATION’S TOP TRIAL LAWYERS 135, 142-43 (John S. Worden ed., 2015).

224. Shari Seidman Diamond & Jonathan D. Casper, *Blindfolding the Jury to Verdict Consequences: Damages, Experts, and the Civil Jury*, 26 LAW & SOC’Y REV. 513, 558 (1992); see also Joel D. Lieberman & Jamie Arndt, *Understanding the Limits of Limiting Instructions: Social Psychological Explanations for the Failures of Instructions to Disregard Pretrial Publicity and Other Inadmissible Evidence*, 6 PSYCHOL. PUB. POL’Y & L. 677, 705 (2000)  
*footnote continued on next page*

Although further research is needed to formulate and test the efficacy of my proposed comparative approach for conveying substantive law to jurors, the results of the legal comprehension measures in this Article's studies provide some preliminary support for the idea.<sup>225</sup> Participants in Studies 2 and 3 were better able to identify where the substantial step and proximity tests draw their respective lines of liability when they viewed both standards side by side, as compared with when they viewed either one in isolation.

Comparative jury instructions may also help address one of the psychological mechanisms that potentially led to the harsher outcomes under the theoretically more defense-friendly proximity test: the risk that its "nearness to crime" framing could cognitively anchor decisionmakers to construe the defendant as having come closer to committing the allegedly intended crime.<sup>226</sup> Prior studies on anchoring have found that "[s]ubjects who were prompted to think of a reason opposing the implications of the anchor value . . . showed less anchoring than a control group given no prompt."<sup>227</sup> So perhaps concurrently exposing jurors in a jurisdiction with the proximity test to the substantial step test's formulation of attempt liability, which focuses on the starting point of a crime, would reorient them away from the proximity test's anchoring to the end point—thereby releasing the decisionmakers from the anchoring effect when they ultimately apply the proximity standard.

The strategy of "considering an alternative" may also be effective at reducing bias.<sup>228</sup> This Article's studies indicate that even the language of the given law can interact with legally irrelevant variables to trigger discriminatory decisionmaking. But comparative jury instructions may help cabin such potential doctrinal triggers of bias (like the proximity test's priming of threat) by presenting alternative framings of the legal standards for the offense in question. Of course, this approach would need to be designed to ensure it does

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(suggesting that explanations could help decisionmakers "defend against" misapplications of inadmissible information). *But see* Avani Mehta Sood, *Cognitive Cleansing: Experimental Psychology and the Exclusionary Rule*, 103 GEO. L.J. 1543, 1597-98 (2015) (finding that explanations of the law's underlying rationale did not curtail motivated decisionmaking in applications of a particularly controversial legal rule).

225. *See supra* Part III.A.

226. *See supra* Part III.B.1.

227. Gretchen B. Chapman & Eric J. Johnson, *Incorporating the Irrelevant: Anchors in Judgments of Belief and Value*, in *HEURISTICS AND BIASES: THE PSYCHOLOGY OF INTUITIVE JUDGMENT* at 120, 132 (Thomas Gilovich et al. eds., 2002).

228. *See, e.g.*, Edward R. Hirt & Keith D. Markman, *Multiple Explanation: A Consider-an-Alternative Strategy for Debiasing Judgments*, 69 J. PERSONALITY & SOC. PSYCHOL. 1069, 1070 (1995); Charles G. Lord et al., *Considering the Opposite: A Corrective Strategy for Social Judgment*, 47 J. PERSONALITY & SOC. PSYCHOL. 1231, 1239 (1984).

not backfire by introducing bias that was not present before—for instance, by exposing jurors in a jurisdiction with the substantial step test to the potentially biasing framing of the proximity test.

This Article’s results further suggest that besides cautioning jurors against decisionmaking biases generally, as many courts already do, judges may need to be particularly vigilant when overseeing applications of certain laws to certain types of crimes and defendants—such as Muslim defendants charged with attempting high-threat crimes under opaque legal standards. In such cases, judges could expand their general instructions about avoiding bias to more specifically inform jurors about psychological processes, like priming and stereotypic schemas, that can lead to discriminatory outcomes.<sup>229</sup>

Implementing these changes to jury instructions would necessitate verifying that jurors are not cognitively overwhelmed, confused, or prejudiced by being exposed to multiple laws and policies before adjudicating the case at hand. Comprehension checks could be administered before deliberation to confirm that jurors know which legal standard they are ultimately required to apply. Special verdict interrogatory forms may also be helpful in this regard, as discussed next. Furthermore, institutional reforms should be informed by empirical research on other tactics that may improve juror comprehension, such as written instructions, notetaking, and the opportunity to ask questions.<sup>230</sup>

b. Special verdict interrogatories

In addition to reconsidering the content of jury instructions, courts could consider a procedural intervention to address lay-legal disconnects in constructions of criminality: the use of special verdict interrogatories in criminal cases. Special verdict forms typically entail a list of step-by-step questions that jurors answer as the basis for their verdicts, as opposed to general verdict forms on which jurors just provide their ultimate conclusion (such as finding a defendant “guilty” or “not guilty” of a charged crime). The

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229. See *supra* Part III.B.2; see also Sood, *supra* note 224, at 1591-99 (finding that motivated legal decisionmaking could be curtailed through explicit but moderate instructions that generate awareness of a potentially motivating but doctrinally irrelevant factor); Avani Mehta Sood, *Motivated Cognition in Legal Judgments—An Analytic Review*, 9 ANN. REV. L. & SOC. SCI. 307, 320-21 (2013) (discussing awareness-generating interventions).

230. See Erickson, *supra* note 111, at 291 (advocating for written jury instructions); Lynne ForsterLee et al., *Effects of Notetaking on Verdicts and Evidence Processing in a Civil Trial*, 18 LAW & HUM. BEHAV. 567 (1994) (suggesting that jury notetaking improves memory by encoding information during the trial rather than relying on its retrieval during deliberations); Larry Heuer & Steven Penrod, *Juror Notetaking and Question Asking During Trials: A National Field Experiment*, 18 LAW & HUM. BEHAV. 121 (1994) (analyzing the advantages and disadvantages of juror questions and notetaking).

special verdict procedure is used in civil trials<sup>231</sup> under the reasoning that it delineates the role of the jury as factfinder rather than law interpreter.<sup>232</sup> In contrast, the use of the special verdict format in criminal cases is “generally disfavored,” largely due to concerns that it could encroach on jurors’ decisionmaking flexibility—including their power to nullify by “decid[ing] against the law and the facts”<sup>233</sup>—and thereby compromise a criminal defendant’s Sixth Amendment right to have the jury make the ultimate determination of guilt.<sup>234</sup> The underlying assumption that using special verdicts in criminal trials would lead to more guilty verdicts has not, however, been empirically tested.

It is possible that special verdict forms could serve to protect rather than disadvantage criminal defendants by helping jurors to more systematically assess whether the prosecution has proven, beyond a reasonable doubt, each element of the charged crime before they find a defendant guilty. For instance, the doctrine of criminal attempt requires the prosecution to prove, beyond a reasonable doubt, both the mental state and act elements of the crime.<sup>235</sup> But the measures in this Article’s studies uncovered that some lay decisionmakers delivered guilty verdicts after concluding that just one of these elements had been met.<sup>236</sup> The written explanations by participants who applied the proximity test even more directly revealed that some lay decisionmakers operationalized the intent and act requirements as either-or options, despite having been instructed that both elements had to be proven beyond a reasonable doubt to impose criminal liability.<sup>237</sup> In addition, the participants most accurately identified where the substantial step and proximity tests for the act element of attempt draw their respective lines of liability when they were told that the intent element of the crime had already been proven.<sup>238</sup>

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231. See FED. R. CIV. P. 49 (explaining the procedure for special verdicts in civil trials).

232. See Franklin Strier, *The Road to Reform: Judges on Juries and Attorneys*, 30 LOY. L.A. L. REV. 1249, 1262 (1997); Elizabeth G. Thornburg, *The Power and the Process: Instructions and the Civil Jury*, 66 FORDHAM L. REV. 1837, 1853-54 (1998).

233. See *United States v. Desmond*, 670 F.2d 414, 416 (3d Cir. 1982) (quoting *Horning v. District of Columbia*, 254 U.S. 135, 139 (1920), *abrogated by United States v. Gaudin*, 515 U.S. 506 (1995)).

234. See *United States v. Spock*, 416 F.2d 165, 182 (1st Cir. 1969).

235. See *supra* Part I.A.

236. It bears reiterating that this was not a uniformly observed pattern. As reported in Part II.C.3 above, when judging the Christian defendant in Study 3b’s attempted trespass case, lay decisionmakers were generally not more likely to deliver a guilty verdict when they thought the defendant met the act but not the intent requirement of criminal attempt.

237. See *supra* Part III.A.

238. See *supra* Part III.A.

Taken together, these results suggest that jurors' constructions of criminality may benefit from more explicit and individuated considerations of the charged crime in a step-by-step manner. Using special verdict interrogatories to this end may help generate closer adherence to the constitutional protections of the law.<sup>239</sup> To address concerns about this procedure potentially encroaching on jurors' decisionmaking autonomy, special verdict forms that are designed primarily to provide clarification and guidance during the lay decisionmaking process, without requiring juries to turn in their responses alongside their ultimate verdicts, could also be tested.

Would the use of special verdict forms in criminal cases help curtail decisionmaking biases triggered by legally extrinsic information? Researchers have suggested that reducing discretion should "decrease opportunities" for stereotypes to infiltrate legal decisionmaking.<sup>240</sup> So to the extent that the step-by-step structure of special verdicts creates a more guided adjudication process, this format might help close entry points for biased decisionmaking.

However, this potential intervention against bias is likely to be effective only alongside efforts to address the underlying opacity of the law. My prior research on the phenomenon of motivated cognition has shown that legal decisionmakers who are motivated to punish for legally irrelevant reasons tend to construe factual evidence as needed to reach their desired punishment goals, without conscious awareness and ostensibly within the technical constraints of the given law.<sup>241</sup> Likewise, jurors who are motivated to find a defendant guilty due to irrelevant factors, such as race or religion, may construe open-ended *laws* to reach their desired verdict outcomes within the constraints of the given factual evidence. With regard to criminal attempt, for example, stereotypes and biases operating outside of conscious awareness may motivate lay decisionmakers to interpret the opaquely defined mental state and act elements of the offense as needed to check off the requisite boxes on the special verdict form for their desired legal outcome. Empirical testing of how verdict format influences lay constructions of criminality—which could bear psychologically fascinating and legally consequential implications—is underway.<sup>242</sup>

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239. See *In re Winship*, 397 U.S. 358, 364 (1970) ("[T]he Due Process Clause protects the accused against conviction except proof beyond a reasonable doubt of every fact necessary to constitute the crime with which he is charged.").

240. See Spencer et al., *supra* note 64, at 59.

241. See Sood, *supra* note 224, at 1547; Avani Mehta Sood & John M. Darley, Essay, *The Plasticity of Harm in the Service of Criminalization Goals*, 100 CALIF. L. REV. 1313, 1345-46 (2012).

242. See Avani Mehta Sood, *What's So Special About General Verdicts?: Experimentally Testing the Legal and Psychological Consequences of Verdict Format in Criminal Law* (unpublished manuscript) (on file with author).

2. Crafting the law

a. Legislative reconstruction

Although considering new approaches to jury instructions and verdict formats could potentially help alleviate risks of legal misunderstanding and bias in lay adjudication, a long-term goal should be to directly eradicate confusing or biasing language from the laws themselves. Judges may be unable or hesitant to adopt the interventions proposed above due to jurisdictional constraints or fear of reversal.<sup>243</sup> Reforms made at the legislative level could circumvent these concerns, and ensure greater consistency across cases and courts within a jurisdiction. The legal system should therefore reconsider not only how judges convey the law to jurors, but also how legislators and model code drafters construct the law that jurors are ultimately instructed to apply. After all, legislation is the point at which the key linguistic signaling, and thus the potential lay-legal disconnects, begin.

The question of what the ideal legal standard for attempt should be is beyond the scope of this Article and its experimental results, which speak more to what the law should *not* be—legally opaque. However, these studies' findings can be drawn upon to assess specific proposals to revise attempt law,<sup>244</sup> as well as to think more broadly about legislative reform with regard to other opaque legal doctrines.<sup>245</sup>

The data show, for example, that there is no one unambiguously correct way in which to construe the words “substantial” and “proximity”—terms which are used not only in attempt law but also more widely across a number of criminal and civil law standards.<sup>246</sup> The drafters of the MPC's substantial

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243. See Diamond et al., *supra* note 54, at 1541-46; Marder, *supra* note 111, at 451; Solan, *supra* note 63, at 470; Peter Tiersma, *The Rocky Road to Legal Reform: Improving the Language of Jury Instructions*, 66 BROOK. L. REV. 1081, 1085-87 (2001).

244. For example, one proposed reconceptualization of attempt law suggests punishing criminal attempts not through a binary verdict of guilty or not guilty, but rather “as a scalar phenomenon in which attempts . . . can be more or less complete at different nodes, depending on the proximity of that node to the last act.” See David O. Brink, *First Acts, Last Acts, and Abandonment*, 19 LEGAL THEORY 114, 118 (2013). However, this differential framing of attempt liability based on the *extent* of a defendant's proximity to the completed crime risks discriminatory legal outcomes for the reasons uncovered in this Article. Particularly in cases involving very threatening criminal attempts, legal decisionmakers—including not only jurors, but also prosecutors who are deciding what “level” of attempt to charge—may perceive stereotypically threatening defendants as having come closer to completing the crime based not on how objectively proximate their actions were, but rather on legally irrelevant factors like their race or religion.

245. See *infra* Part IV.B.3.

246. See *infra* Part IV.B.3.

step test intended the term “substantial” to establish a de minimis standard that refers to any step that corroborates criminal intent,<sup>247</sup> yet a number of the lay decisionmakers in the studies construed the use of “substantial” to mean not just any step but “a major step” or “more investment” toward committing the intended crime than called for by the proximity test.<sup>248</sup> Some lay decisionmakers’ written explanations suggested they may even have misperceived the term “substantial” as setting a higher standard of proof than the proximity test for the act element of attempt, even though they had been informed that all elements of the crime had to be proven beyond a reasonable doubt under both standards.<sup>249</sup> Other researchers have observed that clashes between legal definitions and “folk” concepts that lay people “already have and consistently use” for mens rea terminology, including “intent,” can also lead to confusion and unreliability in jury decisionmaking.<sup>250</sup>

Experiments seeking ways to remedy inaccurate lay conceptions of legal terms and concepts—like the common crime categories of robbery and kidnapping—found that withholding the name of the charged crime, or explicitly instructing mock jurors to rely only on the judge’s definitions of the crime rather than their own preconceived notions, were not effective.<sup>251</sup> What *did* generate more doctrinally accurate lay applications of the law was an instruction that “acknowledge[d] the existence and influence of people’s naive representations and concentrate[d] on correcting the misconceptions contained in those representations.”<sup>252</sup>

Rather than relying on this kind of “concept revision”<sup>253</sup> through jury instructions alone, better lay comprehension and consistency could be achieved by instituting psychological testing of legal standards as part of the process of making and revising laws. Legislators and committees tasked with this mission could harness different types of professional and methodological

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247. See *supra* Part I.A.

248. See *supra* Part III.A.

249. See *supra* Part II.B.1.b. See generally Kevin M. Clermont, *Death of Paradox: The Killer Logic Beneath the Standards of Proof*, 88 NOTRE DAME L. REV. 1061, 1134-37 (2013) (discussing the standards of proof).

250. See Bertram F. Malle & Sarah E. Nelson, *Judging Mens Rea: The Tension Between Folk Concepts and Legal Concepts of Intentionality*, 21 BEHAV. SCI. & L. 563, 565, 578 (2003); see also Matthew R. Ginther et al., *The Language of Mens Rea*, 67 VAND. L. REV. 1327, 1363 (2014) (“The fairness, utility, and effectiveness of the criminal justice system hinges on how well jurors can understand and apply the mens rea categories. . . . It is vitally important that the language of mens rea conveys to actual jurors what the legal system has long assumed it will.”).

251. See Smith, *Prior Knowledge*, *supra* note 50, at 532-33.

252. *Id.* at 535.

253. *Id.*

expertise, including experimental testing with mock jurors, to identify and amend standards that are at high risk of lay misconstructions and biased applications.<sup>254</sup>

When standards for the same offense vary across jurisdictions, as is the case with attempt law, another means of averting lay-legal disconnects may be to formulate the different standards using the same terms, in order to highlight the differences in their relative lines of liability. For example, the different tests for the act requirement of criminal attempt could be defined in terms of taking a “*substantial step*” versus coming “*substantially close*” to committing the allegedly intended crime. Defining both standards through the use of the term “substantial” might help avert juror misunderstanding of legislative intent, as well as the potential anchoring and biasing risks of the “proximity” terminology.<sup>255</sup> In addition, using the same key terms to define substantive liability across different legal tests for the same offense could reduce the risk that jurors will mistakenly use different standards of proof when applying the tests.

b. The vagaries of vagueness

This Article’s empirical findings shed new light on proposals by criminal law scholars to define crimes *more* loosely. Observing that “the mens rea standards and conduct lines that invited jurors to exercise mercy in the past have all but disappeared,” William Stuntz argued that “[v]ague liability rules once were, and might be again, part of a well-functioning system of checks and balances.”<sup>256</sup> Stuntz and others have advocated for less defined criminal prohibitions “so jurors can exercise judgment instead of rubber-stamping prosecutors’ charging decisions.”<sup>257</sup> Indeed, one can readily see how this concern applies to highly specified crimes that curtail the jury’s need or ability to exercise discretion.<sup>258</sup>

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254. Such proposals have been made, and to some extent pursued, with regard to jury instructions. See, e.g., Bethany K. Dumas, *Jury Trials: Lay Jurors, Pattern Jury Instructions, and Comprehension Issues*, 67 TENN. L. REV. 701, 741-42 (2000) (recommending the use of linguistics and discourse theory to rewrite jury instructions and redesign their mode of delivery); Ginther et al., *supra* note 250, at 1363 (using neuroscience research to demonstrate that “when it comes to communicating mental states, phrasing matters” because “subtle variations may have substantial effects”); Marder, *supra* note 111, at 486-90 (discussing the benefits of including laypersons on committees to rewrite jury instructions).

255. See *supra* Part III.B.

256. Stuntz, *supra* note 16, at 2036, 2039.

257. *Id.* at 1974.

258. See *supra* text accompanying note 19.

However, the results of my experiments suggest that vague legal standards may not always procure the pro-defendant benefits that advocates envision, and they may not always be applied in a race-neutral manner. The proximity test for criminal attempt—which the participants in these studies described as “more open-ended” and “more vaguely defined” than the substantial step test—generated harsher and more biased legal outcomes.<sup>259</sup> Some participants even expressed concerns that the proximity test’s haziness renders it more susceptible to prosecutorial abuse.<sup>260</sup> In trying to clarify the proximity standard, the appellate court in *People v. Rizzo* similarly observed: “The word ‘tending’ is very indefinite. . . . Any act in preparation to commit a crime may be said to have a tendency towards its accomplishment.”<sup>261</sup> New York’s current jury instructions—which were used in Studies 2 and 3—now explicitly reflect *Rizzo*’s more specific definition of proximity, but the statute and jury instructions on criminal attempt in New York and other jurisdictions that use this test still include the indefinite word “tending.”<sup>262</sup>

Defining criminal mental state standards like intent in the loose manner that Stuntz suggested—“not cognitive or motive-based,” but rather “proof of the kind and level of moral fault that one ordinarily associates” with the charged crime<sup>263</sup>—may also heighten the risk of discriminatory legal outcomes. Consistent with prior psychology work on ambiguity, this Article’s findings indicate that stereotypes and biases based on legally irrelevant factors may drive lay determinations of criminality under conditions of legal opacity.<sup>264</sup> The pursuit of more merciful jury outcomes through doctrinal vagueness is therefore likely to be actualized in an equitable manner only if the criminal justice system concurrently finds other ways to close entry points for unfair prejudice in lay adjudication.

### 3. Implications for practice, prosecution, and plea bargaining

While the above-proposed ideas directed toward courts and legislatures will require a host of further research and institutional buy-in before becoming actionable, practicing attorneys can more readily begin drawing upon these empirical illustrations of lay-legal disconnects to strive for more informed and equitable jury outcomes in individual cases. For instance, if permitted by the

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259. See *supra* Parts II, III.A.

260. See *supra* note 163 and accompanying text.

261. 158 N.E. 888, 889 (N.Y. 1927); see *supra* text accompanying notes 1-7.

262. See New York Attempt Jury Instructions, *supra* note 33; sources cited *supra* notes 31-32; see also, e.g., TEXAS CRIMINAL PATTERN JURY CHARGES: PREPARATORY CRIMES § E5.9, at 98-99 (2014).

263. See Stuntz, *supra* note 16, at 2037-39.

264. See *supra* Parts I.C, II.C, III.B, III.C.1.

trial judge, litigators could adapt the suggested comparative instructions approach themselves—clarifying the law for jurors during their opening and closing arguments, or when submitting proposed jury instructions or requested amendments to the court’s jury instructions.

Furthermore, while attorneys representing Muslim defendants are no doubt already aware of the risks of jury prejudice their clients face, experimental evidence of religion-based biases in lay decisionmaking may help defense attorneys (and courts) proactively protect against such risks. For example, lawyers could cite such experimental data to support their arguments when submitting motions to suppress evidence on grounds of unfair prejudice<sup>265</sup> or when proposing modifications to jury instructions that present a risk of exacerbating biases. It bears emphasizing, however, that experimental results are “merely probabilistic” and cannot “predict the outcome of a particular case.”<sup>266</sup>

This Article’s findings hold implications not only for criminal attempt cases that go to trial before a jury, but also for prosecutorial discretion in charging decisions and for plea bargaining negotiations, where the bulk of criminal adjudication occurs.<sup>267</sup> Recent ethnographic work suggests that

[d]espite the infrequency of jury trials in the United States, references to jurors pervade federal prosecutors’ work from the earliest stages of their case preparation. This includes their discretion to decline cases, modify investigations, indict defendants, and encourage guilty pleas. . . . [T]he mere possibility that a case will proceed to trial prompts attorneys to construct the pursuit of justice around the imperative of appealing to the common sense of an imagined public.<sup>268</sup>

Moreover, commentators have justified the prevalence of plea bargaining in the criminal justice system by suggesting that “substantial congruence” between the outcomes obtained through pleas and trials can be expected “[s]o long as the judgment of experienced counsel as to the likely jury result is the key element entering into the bargain.”<sup>269</sup>

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265. See FED. R. EVID. 403.

266. See Andrew J. Wistrich et al., *Heart Versus Head: Do Judges Follow the Law or Follow Their Feelings?*, 93 TEX. L. REV. 855, 904 (2015); see also Sood, *supra* note 119, at 309-12.

267. See MARK MOTIVANS, BUREAU OF JUSTICE STATISTICS, U.S. DEP’T OF JUSTICE, NCJ 251770, FEDERAL JUSTICE STATISTICS, 2015-2016, at 9 tbl.6 (2019), <https://perma.cc/Q6K2-JWWB> (reporting that the vast majority of defendants who are convicted plead guilty); see also, e.g., Marc Galanter, *The Hundred-Year Decline of Trials and the Thirty Years War*, 57 STAN. L. REV. 1255, 1257-59 (2005); Máximo Langer, *Rethinking Plea Bargaining: The Practice and Reform of Prosecutorial Adjudication in American Criminal Procedure*, 33 AM. J. CRIM. L. 223, 229 (2006).

268. Anna Offit, *Prosecuting in the Shadow of the Jury*, 113 NW. U. L. REV. (forthcoming 2019) (manuscript at 2-3) (footnote omitted), <https://perma.cc/4ESJ-VXCJ>.

269. See, e.g., Arnold Enker, *Perspectives on Plea Bargaining*, in TASK FORCE ON THE ADMIN. OF JUSTICE, U.S. DEP’T OF JUSTICE, TASK FORCE REPORT: THE COURTS app. A at 108, 113-14 (1967), <https://perma.cc/T8HX-LKNX>. But see, e.g., Stephanos Bibas, *Plea Bargaining* footnote continued on next page

This Article's findings indicate, however, that jury applications of the law may operate quite differently from the assumptions guiding prosecutors' charging decisions and both sides' plea negotiations. In cases of criminal attempt, the substantial step test's lower threshold for liability is thought to skew plea bargaining in the government's favor by "allow[ing] prosecutors to use [the law] as a bludgeon against all those who dare not risk their liberty on a test of their credibility before a jury."<sup>270</sup> Yet, this Article's experimental results show that criminal defendants in substantial step jurisdictions may be better off before a jury than expected, whereas defendants in proximity jurisdictions should arguably be more wary of going to trial than theoretical understandings of attempt law would suggest.

To shed further light on the practical implications of these findings for litigators, it would be helpful to supplement these data with narrative accounts from prosecutors and defense attorneys about their experiences with attempt cases before juries in both proximity and substantial step jurisdictions. If the everyday experiences of these repeat legal players are consistent with this Article's findings, they may already have adjusted their approaches to charging decisions, plea negotiations, and jury trials to operate under a psychologically realistic understanding of how lay decisionmakers operationalize the legal standards for attempt.

#### 4. Arguable risks of legal clarification

If my proposed reforms help clarify the law for jurors, more doctrinally faithful lay applications of attempt doctrine could arguably result in more criminalization, since the majority of U.S. jurisdictions have adopted the more prosecution-friendly substantial step test.<sup>271</sup> Doctrinal trends toward greater criminalization are partly why unconstrained jury discretion that allows for nullification of the law has been lauded as a check on legislative punitiveness.<sup>272</sup> However, jurors cannot nullify—that is, they cannot “acquit the defendant on the basis of conscience even when the defendant is technically guilty in light of the judge's instructions defining the law and the jury's finding of the facts”<sup>273</sup>—if they do not understand what the law is in the first place.

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*Outside the Shadow of Trial*, 117 HARV. L. REV. 2463, 2464-68 (2004) (arguing that the shadow trial model is overly simplistic and that plea bargains differ substantially from trial outcomes).

270. Hasnas, *supra* note 39, at 766.

271. *See supra* Part I.A.

272. *See United States v. Spock*, 416 F.2d 165, 180-81 (1st Cir. 1969); Barkow, *supra* note 15, at 36-37.

273. Alan Schefflin & Jon Van Dyke, *Jury Nullification: The Contours of a Controversy*, LAW & CONTEMP. PROBS., Autumn 1980, at 51, 56 (emphasis omitted).

Leaving lay decisionmakers in the dark about the rules of liability they are tasked with applying is thus unlikely to be an efficient or effective way to counter legislative punitiveness.

Meanwhile, more conservative stakeholders may be concerned that improving lay understandings of the law could result in *more* jury nullification—especially in the attempt context, given that prior psychology work has shown lay intuitions to be more closely aligned with the more defense-friendly proximity test.<sup>274</sup> The comparative jury instructions approach that I propose may also trigger nullification by exposing jurors to other legal standards and policy rationales,<sup>275</sup> which they may then prefer to the standard adopted by their own jurisdiction.

Despite these arguable risks in both directions, the default should not be to ignore the current informational deficits under which jurors may be operating. The lay misconstructions of law illustrated in this Article's studies risk compromising criminal defendants' rights to due process and nondiscriminatory adjudication, as well as the ability of jurors to either adhere to or make informed decisions to nullify their jurisdictions' governing standards. Clarifying the law for lay decisionmakers would at least reduce the risk of *inadvertent* doctrinal misapplications in jury decisionmaking—perhaps an ambition that both pro-nullification and pro-criminalization advocates would support.

## B. Future Directions

Moving beyond this Article's own empirical findings and the policy proposals they provoke, this final Subpart highlights further socio-psychological variables and legal doctrines that merit experimental investigation for a fuller understanding of how lay decisionmakers operationalize facts and law in determinations of legal liability. Future studies could shed light on the effects that group deliberation, variations in factual ambiguity, other types of attempted crimes, and more specified defendant identity variables have on lay constructions of criminal attempt. This Article's research paradigm could also be fruitfully adapted to study jury applications of other opaque criminal and civil laws.

### 1. Effects of group deliberation

These experiments provide important insight into how *individual* lay decisionmakers construct criminality, but follow-up work is needed to understand whether and how collective decisionmaking processes influence

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274. See ROBINSON & DARLEY, *supra* note 43, at 23; *supra* Part I.A.2.

275. See *supra* Part IV.A.1.

the ultimate verdict that a jury delivers as a group. The literature on the impact of group deliberation on initial individual judgments—including in the context of jury decisionmaking—has been mixed.<sup>276</sup> Researchers have concluded that there is no general, straightforward answer to the question of whether groups are likely to render more accurate<sup>277</sup> or less biased<sup>278</sup> legal judgments than are individuals.

Some group dynamics could amplify rather than ameliorate the legal misconstruction and bias observed at the individual level in this Article's studies.<sup>279</sup> For example, the robustly demonstrated phenomenon of "group polarization" could lead a jury as a group to arrive at a more extreme position than the individual jurors held prior to deliberation.<sup>280</sup> Jurors could also fall prey to informational influences due to signals provided by the "conduct, conclusions, and reason-giving" of those who speak first,<sup>281</sup> or to social

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276. See, e.g., KALVEN & ZEISEL, *supra* note 55, at 488-89 ("with very few exceptions the first ballot decides the outcome of the verdict . . . the real decision is often made before the deliberation begins"); Diamond & Casper, *supra* note 224, at 559-60 (suggesting that the impact of group deliberation on jury verdicts may differ in criminal and civil contexts); Diamond et al., *supra* note 54, at 1605 (noting that jury deliberations can "assist in resolving individual misunderstandings"); Phoebe C. Ellsworth, *Are Twelve Heads Better than One?*, LAW & CONTEMP. PROBS., Autumn 1989, at 205, 218 (finding empirical evidence that "the deliberation process works well in correcting errors of fact but not in correcting errors of law"); Paula L. Hannaford et al., *The Timing of Opinion Formation by Jurors in Civil Cases: An Empirical Examination*, 67 TENN. L. REV. 627, 638, 650-51 (2000) ("[A] substantial proportion of jurors in this study reported changing their minds based on discussions with other jurors during the course of the trial or final deliberations"); H.P. Weld & E.R. Danzig, *A Study of the Way in Which a Verdict Is Reached by a Jury*, 53 AM. J. PSYCHOL. 518, 535-36 (1940) (reporting an empirical study that found "jurors had already reached a decision when they came to the jury room and they were prepared to defend their opinion").

277. See Cass R. Sunstein, *Group Judgments: Statistical Means, Deliberation, and Information Markets*, 80 N.Y.U. L. REV. 962, 982-84 (2005).

278. See Norbert L. Kerr et al., *Bias in Judgment: Comparing Individuals and Groups*, 103 PSYCHOL. REV. 687, 713 (1996).

279. See Garold Stasser & William Titus, *Pooling of Unshared Information in Group Decision Making: Biased Information Sampling During Discussion*, 48 J. PERSONALITY & SOC. PSYCHOL. 1467, 1476 (1985); Sunstein, *supra* note 277, at 990-1006 (discussing various causes of "deliberative failures"); see also MacCoun, *supra* note 47, at 1048 ("To the extent that a group's average pre-deliberation opinion deviates from the neutral point on a bipolar scale, the average postdeliberation opinion will tend to be more extreme in the same direction.").

280. See David G. Myers & Helmut Lamm, *The Group Polarization Phenomenon*, 83 PSYCHOL. BULL. 602, 603 (1976); Sunstein, *supra* note 277, at 1004-06.

281. See Sunstein, *supra* note 277, at 984-85, 999-1000.

pressures to conform with the majority in order to be well regarded by other jurors.<sup>282</sup> In these circumstances, it would likely “follow[] that if the majority is wrong, the group will be wrong as well.”<sup>283</sup>

The effects of group deliberation in lay constructions of criminality are especially worth testing in cases with ambiguous evidence. Would such cases ultimately be likely to result in a hung jury even under the proximity test, given that only about 60% of participants applying this test to ambiguous facts in Study 1 recommended conviction?<sup>284</sup> Or would the group psychology processes described above lead jurors to converge toward a guilty verdict with even a slim majority?<sup>285</sup> Either possibility raises broader questions about prosecutorial discretion and whether such “close” cases should even be brought to trial.

## 2. Delineating and disentangling variables

To better understand the extent of evidentiary ambiguity necessary to trigger the doctrinally incorrect lay applications of the substantial step and proximity tests observed in Studies 1 and 2, it would be useful for follow-up experiments to test cases with legally relevant facts that vary in their degree of ambiguity. Moreover, given that manipulation of the charged crime in Study 2 did not achieve its intended goal of testing multiple types of ambiguous attempt cases (since the facts in both the attempted terrorism and attempted trespass cases skewed instead toward innocence), a larger range of attempted crimes should be tested to explore the doctrinal reach of this Article’s findings.

Further work is also needed to probe the biased decisionmaking that emerged under the proximity test in Study 3—due not to the implied religion of the defendant or the severity of his alleged crime alone, but rather to the interaction of these two legally irrelevant factors.<sup>286</sup> This interaction potentially invoked stereotypic schemas, leading the decisionmakers to more readily associate (or not associate) a certain defendant with a certain kind

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282. See *id.* at 985-86, 1002-03; see also Martin F. Kaplan & Charles E. Miller, *Group Decision Making and Normative Versus Informational Influence: Effects of Type of Issue and Assigned Decision Rule*, 53 J. PERSONALITY & SOC. PSYCHOL. 306, 307-08 (1987) (investigating conditions under which informational versus social conformity influences predominate in group decisionmaking).

283. Sunstein, *supra* note 277, at 983-84. But see *id.* at 1006-12 (discussing how deliberation may instead improve group judgments).

284. See *supra* Part II.A.2.b.

285. See David H. Kaye et al., *Statistics in the Jury Box: How Jurors Respond to Mitochondrial DNA Match Probabilities*, 4 J. EMPIRICAL LEGAL STUD. 797, 815 (2007) (“[D]eliberations led the jurors who were uncertain to be more confident that the defendant is indeed guilty.”).

286. See *supra* Part II.C.

of threat.<sup>287</sup> To unpack these associations, future experiments could test the effects of the defendant's implied religion on lay adjudication of attempted crimes that are comparable in severity but are deliberately varied in the extent to which they are stereotypically associated with the religion in question (or other legally extrinsic demographic variables, like race or gender).<sup>288</sup> Furthermore, to disentangle the multiple possible identities embedded in the implied religion variable, studies would need to expand beyond the manipulation of the defendant's name by, for example, presenting defendants named Michael and Mohamed who are explicitly signaled to be white men or men of color, in separate between-subject conditions.

Experimental participants may also make assumptions about other demographic characteristics of the hypothetical defendant—such as age, level of education, or socioeconomic status—that could exert unmeasured influences on the results.<sup>289</sup> To control or measure such effects, experimental scenarios could add more explicit information about the defendant to hold nonmanipulated characteristics constant (as this Article's studies did with regard to gender, by always presenting a male defendant). Alternatively, studies could include more self-report measures that directly ask participants how they conceived of the defendant's identity with respect to various demographic dimensions. For purposes of external and internal validity,<sup>290</sup> however, the given demographic information should be limited to what jurors are likely to see or be told in a real trial, and the participants' self-reported perception measures should be administered only after they have rendered their legal judgments.

### 3. Further doctrinal applications

#### a. Testing rape laws

Attempt is not the only realm of criminal law in which jurors are faced with the dual cognitive challenge of determining both the facts of a case and

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287. See *supra* Part III.B.2.

288. For example, lay decisionmakers could be asked to determine attempt liability when a defendant is implied to be either Muslim or Christian, and is charged with a high-severity crime that is stereotypically associated with extremist Islam (for example, an attempted bombing of an American airplane), extremist Christianity (for example, an attempted bombing of an abortion clinic), or neither in particular (for example, an attempted bombing of an office)—while holding constant the potential harm that could have resulted had the allegedly intended crime been completed.

289. See Dennis J. Devine & David E. Caughlin, *Do They Matter?: A Meta-Analytic Investigation of Individual Characteristics and Guilt Judgments*, 20 PSYCHOL. PUB. POL'Y & L. 109, 115-16, 122 (2014).

290. See Sood, *supra* note 119, at 308-09 (discussing internal and external validity of law-and-psychology experiments).

the legal threshold for liability. Opaquely defined standards for various criminal offenses may host similar or even greater risks of lay misunderstanding and bias.<sup>291</sup> Consider, for example, rape law: Unlike the doctrine of attempt, in which only the act element changes across jurisdictions, both the act and mental state elements of rape differ across states,<sup>292</sup> making it all the more important to study the effects of jurisdictional variation. Moreover, the pivotal terms that rape laws use to define both the act and mental state elements of the offense—such as “force,” “resistance,” and “consent”<sup>293</sup>—are varied and opaque in both substance and degree.

Rape law presents a particularly timely arena for investigating lay constructions of criminality because the resulting insights could productively inform ongoing doctrinal reform. The MPC’s provisions on sexual assault are currently under revision,<sup>294</sup> and some jurisdictions have moved away from traditional common law requirements of force and resistance—which have been criticized for reflecting male-centric notions of sexuality<sup>295</sup>—to instead

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291. See Avani Mehta Sood, *Homicidal Opacity* (unpublished manuscript) (on file with author) (discussing potential implications of opaquely defined homicide crimes, including negligent homicide, reckless manslaughter, depraved heart murder, different degrees of intentional murder, and felony murder).

292. See Kari Hong, *A New Mens Rea for Rape: More Convictions and Less Punishment*, 55 AM. CRIM. L. REV. 259, 277-79, 284-86 (2018) (discussing different states’ definitions of rape and noting variations in requirements of force, consent, and awareness of incapacity).

293. See, e.g., MD. CODE ANN., CRIM. LAW § 3-303(a)(1) (LexisNexis 2018) (defining rape as intercourse “by force, or the threat of force, without the consent of the other”); *State v. Rusk*, 424 A.2d 720, 728 (Md. 1981) (“Just where persuasion ends and force begins in cases like the present is essentially a factual issue . . .”).

294. See *Model Penal Code: Sexual Assault and Related Offenses*, AM. L. INST., <https://perma.cc/X9QY-U545> (archived Feb. 1, 2019) (“This project is re-examining Article 213 of the Model Penal Code, which was ahead of its time when approved by [the] ALI in 1962, but is now outdated and no longer a reliable guide for legislatures and courts.”); see also MODEL PENAL CODE § 213.0 (AM. LAW INST., Official Draft and Explanatory Notes 1985).

295. See Andrew E. Taslitz, *Willfully Blinded: On Date Rape and Self-Deception*, 28 HARV. J.L. & GENDER 381, 402-03 (2005) (“Feminists have long recognized . . . implicit arguments at work in rape cases and have railed against them . . . for allowing male beliefs about the meaning of female sexual behavior to determine liability for the crime.”); see also Louise Ellison & Vanessa E. Munro, *A Stranger in the Bushes, or an Elephant in the Room?: Critical Reflections upon Received Rape Myth Wisdom in the Context of a Mock Jury Study*, 13 NEW CRIM. L. REV. 781, 782-83 (2010) (noting that traditional conceptions of rape imply surprise attack by an unknown assailant and physical injury to the victim); H.M. Malm, *The Ontological Status of Consent and Its Implications for the Law on Rape*, 2 LEGAL THEORY 147, 158 (1996) (explaining that men are often socialized to think that “women feign resistance when they nonetheless desire sex”).

impose legal expectations of affirmative consent.<sup>296</sup> But are jurors likely to construe and apply such revised legal standards in accordance with the evolving goals of lawmakers?<sup>297</sup>

The doctrine of rape also offers an important context for studying the variable of victims in lay constructions of criminality. Even when jurisdictions shift determinations of liability in rape cases away from the alleged victim's resistance and toward manifestations of affirmative consent, this too may ultimately require scrutinizing what the victim did or did not do. Furthermore, studying the interaction of defendant and victim characteristics can reveal discrimination that is not apparent when examining variables relating to the defendant alone.<sup>298</sup> In *McQuirter v. State*, it was the race of not only the black defendant but also the white alleged victim that the court held relevant in determining the defendant's intent to rape.<sup>299</sup> Although today's jurors are not supposed to explicitly consider factors like race in such determinations,<sup>300</sup> it is worth empirically testing whether the varied and evolving legal standards for rape interact with legally irrelevant information to trigger implicit biases and stereotypic schemas that operate in favor of (or against) the defendant or the victim in lay constructions of rape liability.

b. Extensions to civil law

The risks of legal misunderstanding and bias that this Article predicts and illustrates in lay decisionmaking about criminality could also arise in jurors' applications of opaque civil laws. At a minimum, these experimental results

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296. See, e.g., *State ex rel. M.T.S.*, 609 A.2d 1266, 1277 (N.J. 1992); Mary Graw Leary, *Affirmatively Replacing Rape Culture with Consent Culture*, 49 TEX. TECH L. REV. 1, 6-7 (2016). See generally STEPHEN J. SCHULHOFER, *UNWANTED SEX: THE CULTURE OF INTIMIDATION AND THE FAILURE OF LAW* (1998) (discussing the history of rape law reforms and underlying sociocultural perceptions, and arguing for affirmative consent laws); ANDREW E. TASLITZ, *RAPE AND THE CULTURE OF THE COURTROOM* (1999) (discussing hurdles that "patriarchal stories" and the adversary system pose to rape law reform).

297. See Ellison & Munro, *supra* note 295, at 784-85 (observing that jurors may theoretically accept notions of rape that do not involve a stranger, but that in such cases they tend to find other ways to determine that the alleged offense was not "real rape").

298. See, e.g., Jennifer L. Eberhardt et al., *Looking Deathworthy: Perceived Stereotypicality of Black Defendants Predicts Capital-Sentencing Outcomes*, 17 PSYCHOL. SCI. 383, 385 (2006); Kitty Klein & Blanche Creech, *Race, Rape, and Bias: Distortion of Prior Odds and Meaning Changes*, 3 BASIC & APPLIED SOC. PSYCHOL. 21, 30-31 (1982).

299. See 63 So. 2d 388, 390 (Ala. Ct. App. 1953) ("In determining the question of intention the jury may consider social conditions and customs founded upon racial differences, such as that the prosecutrix was a white woman and defendant was a Negro man."); *supra* text accompanying note 75.

300. See *supra* text accompanying note 76.

implicate various civil doctrines that employ the same vague and ambiguous terms, like “substantial” and “proximity,” shown to be at risk of lay misconstruction in attempt law.

For example, jurors are called upon to construe and apply the word “substantial” in the “substantial beginning” test in contract law<sup>301</sup> and the “substantial similarity” test for copyright infringement.<sup>302</sup> The opaque concept of “proximity” also comes up in civil legal standards, and may even overlap with the use of “substantial,” as seen in the “substantial factor” test of the proximate cause requirement in tort law.<sup>303</sup> Indeed, even the Restatement of Torts has noted: “[T]he term ‘proximate cause’ is a poor one to describe limits on the scope of liability. . . . Even if lawyers and judges understand the term, it is confusing for a jury.”<sup>304</sup>

The dominant but sometimes misconstrued or biasing role of intent in lay determinations of criminal attempt<sup>305</sup> suggests that lay applications of this mental state element should be further tested in civil contexts too. Jurors are asked, for instance, to make determinations of intent in tort cases involving alleged “intentional infliction of emotional distress”<sup>306</sup> or “intentional interference with contract.”<sup>307</sup>

Beyond the particular legal terms that this Article’s studies investigated, there are many other doctrinal phrases and concepts across various areas of civil law that may be at risk of lay misconstructions and biased applications due to their definitional opacity. For example, intellectual property law is rife

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301. *See, e.g.,* *Chambers Steel Engraving Corp. v. Tambrands, Inc.*, 895 F.2d 858, 859 (1st Cir. 1990) (noting that Massachusetts law calls for a manufacturer to have made a “substantial beginning” in order for a contract to be enforced when the purchaser has ordered goods to be specially manufactured).

302. *See, e.g.,* *Mattel, Inc. v. MGA Entm’t, Inc.*, 616 F.3d 904, 911 (9th Cir. 2010) (“The district court instructed the jury that any ‘substantially similar’ Bratz doll infringed Mattel’s copyrights in the sketches and sculpt.”); *cf., e.g.,* Katherine Lippman, Comment, *The Beginning of the End: Preliminary Results of an Empirical Study of Copyright Substantial Similarity Opinions in the U.S. Circuit Courts*, 2013 MICH. ST. L. REV. 513, 524 (“Substantial similarity, a seemingly simplistic term of art, masks its own complexity.”).

303. *See, e.g.,* Souren A. Israelyan, *Verdict Sheet Interrogatories*, N.Y. ST. B. ASS’N J., Jan. 2016, at 47, 47 (“The jury charge on proximate cause reads: ‘An act or omission is regarded as a cause of an injury . . . if it was a *substantial factor* in bringing about the injury . . . .’” (emphasis added) (quoting 1A NEW YORK PATTERN JURY INSTRUCTIONS: CIVIL § 2:70 (3d ed. 2015))); *see also* David E. Seidelson, *Some Reflections on Proximate Cause*, 19 DUQ. L. REV. 1, 40 (1980) (“[A]ll too frequently, judicial instructions to juries required to resolve proximate cause issues offer little more than the terseness found in a legal dictionary.”).

304. 1 RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL & EMOTIONAL HARM § 29 cmt. b at 494 (AM. LAW INST. 2005).

305. *See supra* Part III.C.

306. *See, e.g.,* *George v. Jordan Marsh Co.*, 268 N.E.2d 915, 921 (Mass. 1971).

307. *See, e.g.,* *United Truck Leasing Corp. v. Geltman*, 551 N.E.2d 20, 21 (Mass. 1990).

with opaque legal standards, such as “fair use” in copyright cases,<sup>308</sup> “obviousness” in patent cases,<sup>309</sup> and “likelihood of confusion” in trademark cases.<sup>310</sup> Extending this Article’s research queries and paradigm to study lay decisionmaking in these areas of civil litigation could help generate empirical understandings of how jurors construct not just criminality but legal liability more broadly.

Finally, tort law presents a particularly promising realm in which to conduct comparative experimental examinations of the legal and psychological effects of doctrinal opacity in civil versus criminal law. Tort law and criminal law have significant terminological overlaps, including the terms “proximity,” “substantial,” and “intentional” that this Article’s studies tested; as well as broad and psychologically slippery concepts like “foreseeability,” “reasonableness,” “negligence,” and “causation”<sup>311</sup>—which even the most committed of law students often struggle to grasp.<sup>312</sup> Given the different goals underlying tort and criminal law, the legal terms that the two fields have in common are often legislatively or judicially intended to have different meanings.<sup>313</sup> A comparative empirical study could provide valuable insights into how lay decisionmakers construe and apply similar legal language in determinations of civil versus criminal culpability.

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308. See 17 U.S.C. § 107 (2017).

309. See 35 U.S.C. § 103 (2017).

310. See 15 U.S.C. § 1114 (2017). See generally Robert G. Bone, *Taking the Confusion Out of “Likelihood of Confusion”: Toward a More Sensible Approach to Trademark Infringement*, 106 NW. U. L. REV. 1307 (2012).

311. See, e.g., MODEL PENAL CODE § 2.02(2)(d) (AM. LAW INST., Official Draft and Explanatory Notes 1985) (defining criminal negligence through a reasonable person standard); *People v. Acosta*, 284 Cal. Rptr. 117, 120-26 (Ct. App. 1991) (discussing concepts of causation and foreseeability).

312. See, e.g., *Acosta*, 284 Cal. Rptr. at 121 (“‘Proximate cause[.]’ . . . the term historically used to separate those results for which an actor will be held responsible from those not carrying such responsibility[.] . . . is, in a sense, artificial, serving matters of policy surrounding tort and criminal law and based partly on expediency and partly on concerns of fairness and justice. Because such concerns are sometimes more a matter of ‘common sense’ than pure logic, the line of demarcation is flexible, and attempts to lay down uniform tests which apply evenly in all situations have failed.” (footnote omitted) (citation omitted)).

313. See, e.g., KADISH ET AL., *supra* note 155, at 446-68 (discussing the difficulty of differentiating “between the ordinary negligence that suffices for civil tort liability and the more culpable kind required for criminal liability”).

### **Conclusion**

This Article's findings of misunderstanding and bias in lay constructions of criminal attempt provide a novel glimpse into how doctrinal opacity can risk eroding the fairness and legitimacy of the justice system. Disconnects between lawmakers' intended thresholds for legal liability and jurors' interpretations of those thresholds could compromise the rights of criminal defendants (or civil litigants); the decisionmaking agency of jurors; and the capacity of legislatures and courts to achieve their respective democratic functions of clearly promulgating and administering a jurisdiction's chosen law.

These studies also illustrate how legal opacity can inadvertently enable biased decisionmaking. Upon hearing about the results of this research, a student of mine related that she has three friends named Mohamed who choose to go by the name Michael to avoid social repercussions of Islamophobia. My experimental findings suggest that whether one's name is Mohamed or Michael may have high-stakes legal repercussions too, and the disturbing role of the language of the law in triggering such discrimination merits particular attention.

While uncovering disturbing dimensions of lay decisionmaking, this Article also demonstrates how the tools of psychology can be applied to better understand and begin to address the underlying lay-legal miscommunications. Taking the time to empirically test the language used to define and convey the law to lay decisionmakers could lead to more informed and fair jury adjudication—thus helping to move the legal system toward the goal of seeing justice not simply attempted, but achieved.

**Appendix A**  
**Experiment Details**

I. Sample Exclusions

In Study 1 (which presented a hypothetical case of attempted arson), 20 of 223 participants in the original sample were excluded based on the following prespecified criteria: (a) five participants reported that either they or someone they were close to had a significant personal experience with arson; (b) five participants stated that they either could not be objective or did not know if they could be objective in judging a case about attempted arson due to difficult non-arson experiences with fires; (c) three participants failed attention/manipulation checks, which were used to ensure that participants read the provided facts carefully and understood the nature of the charged crime; (d) three participants stated that they did not find the facts credible; and (e) four participants were excluded because they spent less than ten minutes completing the survey (on average, participants took 30 minutes to complete the survey).

In Study 2 (which presented a hypothetical case of either attempted terrorism, attempted arson, or attempted trespass), 26 of 241 participants in the original sample were excluded based on the following prespecified criteria: (a) five participants reported that they could not be objective due to personal experiences with crime; (b) six participants failed attention/manipulation checks; and (c) fifteen participants were excluded because they spent less than ten minutes completing the survey (on average, participants took 27 minutes to complete the survey).

In Study 3a (which presented a hypothetical case of attempted terrorism), 32 of 313 participants in the original sample were excluded based on the following prespecified criteria: (a) eight participants reported that they either could not be objective due to personal experiences with crime or did not know if they could be objective when judging this case; (b) nine participants failed attention/manipulation checks; (c) fourteen participants were excluded because they spent less than ten minutes completing the survey (on average, participants took 28 minutes to complete the survey); and (d) one participant experienced technical difficulties while doing the survey.

In Study 3b (which presented a hypothetical case of attempted trespass), 29 of the 244 participants in the original sample were excluded based on the following prespecified criteria: (a) five participants reported that they could not be objective due to personal experiences with crime; (b) three participants were excluded because they had themselves been charged with trespass; (c) one participant was excluded because he had a felony record that made him ineligible for jury duty; (d) ten participants failed attention/manipulation checks; and (e) ten participants were excluded because they spent less than ten minutes completing the survey (on average, participants took 25 minutes to complete the survey).

## II. Primary Dependent Measures of Criminality

The primary dependent variables measured the effects of the independent variables (described below)<sup>314</sup> on the participants' ratings and responses in regard to the following judgments about criminal attempt:

*Intent element*: Seven-point scale ranging from "he definitely did not intend to commit [allegedly attempted crime]" to "he definitely did intend to commit [allegedly attempted crime]."

*Act element*: Seven-point scale ranging from "his conduct definitely did not meet the act requirement for [allegedly attempted crime]" to "his conduct definitely did meet the act requirement for [allegedly attempted crime]."

*Guilt (continuous)*: Seven-point scale ranging from "the defendant is definitely not guilty" to "the defendant is definitely guilty" of the charged criminal attempt.

*Guilt (dichotomous)*: Binary verdict options of either "not guilty" or "guilty" of the charged criminal attempt.

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314. For an explanation of dependent and independent variables in experimental design, see KEPPEL & WICKENS, *supra* note 104, at 2-6.

### III. Independent Variables

The following independent variables were manipulated to measure their effects on the primary dependent variables (described above) and other measures in the studies.

**Table A.1**  
Independent Variables

<b>Condition</b>	<b>Study 1</b>	<b>Study 2</b>	<b>Study 3</b>
Law (between-subjects)	Substantial step or proximity	Substantial step or proximity	Substantial step or proximity
Attempted crime (and fact skew) <sup>315</sup>	Arson: innocent, ambiguous, and guilty (within-subjects)	Terrorism (innocent), arson (ambiguous), or trespass (innocent)	3a: terrorism (innocent) 3b: trespass (innocent)
Implied religion (between-subjects)	N/A	N/A	Muslim, Christian, or control (no religion signaled)

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315. As noted in Part II.B.2.a above, the fact skew in Study 2 was unintended.

**Appendix B**  
**Complete Fact Scenarios**

I. Study 1: Within-Subjects Fact Manipulation

A. Evidence Skews Toward Innocence

The defendant is a forty-year-old male who is the sole owner of Pet Pantry, a pet supplies store in a commercial area on Jones Street. On September 3, 2015, at approximately 11:30 pm, the police received a call from a security guard patrolling Jones Street, who reported that a car had driven slowly down the street and then stopped in front of Pet Pantry with its engine running. The guard went around the corner to call the police, and could no longer see the car during that period of time. Shortly thereafter, police officers arrived at the scene and found the defendant sitting alone in the car in front of the Pet Pantry store.

The defendant consented to a search of his car, and inside the officers found a box of matches and a plastic bottle of gasoline. The defendant told the officers that he had stopped by his store at that time to pick up some documents he had left there earlier in the day, and that the matches and gasoline in the car were supplies he had obtained for an upcoming camping trip. The defendant showed the police that he also had a camping tent in the trunk of his car.

B. Evidence Becomes More Ambiguous

Further investigation after the incident revealed the following additional undisputed facts: The defendant has owned the Pet Pantry store for five years. The business has been suffering financial losses for the past year, and the defendant recently held a clearance sale for much of the store's inventory. A month before the incident, the defendant bought a fire insurance policy on the store, which provided that he would receive an \$80,000 payment if the store burned down. The defendant is approximately \$85,000 in debt for both business and personal expenses. A witness testified that about two weeks before the incident, when the defendant was greatly agitated upon receiving yet another debt collection notice, he exclaimed: "I should just burn down my store so that I can cash in on the fire insurance and pay off all these bills!"

C. Evidence Swings More Toward Guilt

Upon closer investigation at the scene of the incident in front of the Pet Pantry store that night, the police found that the gasoline bottle in the defendant's car was partially empty. They also found gasoline droppings on the ground outside the entrance to the Pet Pantry store, and remnants of gasoline on the gloves that the defendant was wearing.

II. Study 2: Between-Subject Crime Manipulation

A. Attempted Terrorism (High Severity)

The defendant in this case has been charged with attempt to commit terrorism.<sup>316</sup>

The following undisputed facts are presented at trial: The defendant runs an online store that ships camping and hunting supplies to customers. On October 4, 2016 at approximately 9:30 am, the police received a call from a clerk at a US Postal Service office on Adams Street, who reported that a large van with shades drawn over the windows had pulled up in front of the post office about 30 minutes earlier. The clerk told the police operator that when he approached the van, he heard rustling and jangling noises coming from inside the van, but got no answer when he knocked loudly on the window of the vehicle. There were 20 people in and around the post office at the time.

When two police officers arrived at the scene and demanded that the driver come out of the van, the defendant emerged and consented to a search of the vehicle. Inside the van, the police officers found a camping stove, light weight pressure cookers, boxes of bullets and nails, and bags of black gunpowder. These items could be assembled within an hour to build explosive devices known as "pressure cooker bombs," which could kill the 20 people in and around the post office at the time. Pressure cooker bombs are relatively easy to construct—explosive materials (like gunpowder and bullets) and shrapnel (like nails) are placed inside a pressure cooker, which can then be triggered by a cell phone to explode. Such devices have been used in a number of terrorist attacks in the US and around the world.

Upon being questioned, the defendant said that pressure cookers were some of his best-selling camping items, especially in colder weather; and the bullets and gunpowder were popular items for the upcoming duck-hunting

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316. Participants were provided with the legal standard for criminal attempt separately depending on the law condition to which they were randomly assigned, and were also provided with the following definition of terrorism: "A person is guilty of terrorism if he commits a violent offense in order to: (1) intimidate or coerce a civilian population, or (2) influence the policy of a government by intimidation or coercion, or (3) affect the conduct of a government."

season. The defendant said that he had come to Adams Street that afternoon to prepare the items for shipment out of a privately operated FedEx store, which was across the street from the US Postal Service office. The police were able to confirm that the defendant did in fact operate an online camping and hunting supplies store, and that the lightweight pressure cookers he had in the van were popular camping items because they reduced energy input and cooking time, especially at high altitudes. In addition, the defendant had a special contract with FedEx to ship hazardous hunting materials, and there were cardboard shipping boxes in his van as well. The defendant was able to produce records of pending orders that customers had placed for pressure cookers, bullets, and gunpowder, but the quantities of these items that he had in the van were greater than the quantities that customers had ordered.

Further investigation revealed the following additional facts: Prior to opening his online business, the defendant had worked for ten years as an employee for the US Postal Service. During that time, he had developed strongly negative views of how the US Postal Service operated. He ultimately quit his job at the post office, and had thereafter devoted significant time to engaging in a campaign of distributing flyers and pamphlets that publicized his negative views about the US government's "corrupt" postal practices and argued that the government should provide free postal services. The police also discovered the defendant's personal journal, in which he had made the following entry one week prior to the incident in front of the post office: "The US Postal Service is stealing from US citizens, and needs an explosive wake-up call so that the government can get on the right track and fulfill its moral obligation of providing free mail to everyone." In addition, the defendant had written that he felt the Unabomber—who had engaged in a bombing campaign to publicize his political views—had been misunderstood and unfairly punished.

B. Attempted Arson (Moderate Severity)

The defendant in this case has been charged with attempt to commit arson.<sup>317</sup>

The following undisputed facts are presented at trial: The defendant is the sole owner of Pet Pantry, a pet supplies store in a commercial area on Jones Street. On September 3, 2016, at approximately 11:30 pm, the police received a call from a security guard patrolling Jones Street, who reported that a car had

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317. Participants were provided with the legal standard for criminal attempt separately depending on the law condition to which they were randomly assigned, and were also provided with the following definition of arson: "A person is guilty of arson if he intentionally starts a fire, whether on his own property or on that of another, with the purpose of destroying or damaging the property."

driven slowly down the street and then stopped in front of Pet Pantry with its engine running. The guard went around the corner to call the police; he could no longer see the car during that period of time. Shortly thereafter, police officers arrived at the scene and found the defendant sitting alone in the car in front of the Pet Pantry store. The defendant was dressed in dark clothes, boots, and gloves.

The defendant consented to a search of his car, and the officers found a box of matches and a small plastic canister of gasoline inside the car. The defendant told the officers that he had stopped by his store at that time to pick up some documents he had left there earlier in the day, and that the matches and gasoline in the car were supplies he had obtained for an upcoming camping trip. The defendant showed the police that he also had a camping tent in the trunk of his car.

Further investigation revealed the following additional facts: The defendant has owned the Pet Pantry store for five years. The business has been suffering financial losses for the past year, and the defendant recently held a clearance sale for much of the store's inventory. A month before the incident, the defendant bought a fire insurance policy on the store, which provided that he would receive an \$80,000 payment if the store burned down. The defendant is approximately \$85,000 in debt for both business and personal expenses. A witness testified that about two weeks before the incident, the defendant had been greatly agitated upon receiving yet another debt collection notice and had exclaimed: "I should just burn down my store so that I can cash in on the fire insurance and pay off all these bills!"

### C. Attempted Trespass (Low Severity)

The defendant in this case has been charged with attempt to commit trespass on private property.<sup>318</sup>

The following undisputed facts are presented at trial: The defendant regularly plays a Sunday game of touch football with his friends in a neighborhood park. On July 31, 2016 at approximately 3 pm, the police received a call from a local homeowner about a potential intruder on her property. According to the homeowner, the defendant and his friends had been playing their game in the park behind her yard, and their football had been

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318. Participants were provided with the legal standard for criminal attempt separately depending on the law condition to which they were randomly assigned, and were also provided with the following definition of trespass: "A person is guilty of trespass if he knowingly enters or remains unlawfully upon private property that is fenced, walled, or otherwise enclosed in a manner designed to exclude intruders."

thrown into her yard. The homeowner reported to the police that the defendant was climbing a short wall between the park and her yard, and the homeowner believed the defendant was going to come into her yard.

When a police officer who happened to be on patrol very nearby reported to the scene, he found the defendant straddling the wall and saying to his friends, “I have to get that ball back, my brother will never forgive me if I lose it!” The officer called up to the defendant to stop immediately. The wall that the defendant was straddling was public property because it was part of the park, but the wall was designed to exclude the public from crossing into the homeowner’s private property. The defendant told the officer that he had climbed onto the wall just to see if the football had in fact fallen into the homeowner’s yard, and that he was then planning to go around to the homeowner’s front door to ring her doorbell and ask for her permission to retrieve the ball.

Further investigation revealed the following additional facts: The football that had fallen into the homeowner’s yard was an expensive, special edition ball that the defendant had borrowed from his brother. The police also learned that the homeowner had on previous occasions denied people who played in the park access to her private yard to retrieve balls that landed there.

### III. Studies 3a and 3b: Between-Subjects Religion Manipulation

Studies 3a and 3b used the facts above for the attempted terrorism and attempted trespass cases, respectively, with the added manipulation of the defendant’s implied religion.

#### A. Attempted Terrorism

*Muslim condition:* The defendant in this case, Mohamed Farooq, is a male who has been charged with attempt to commit terrorism. . . . He ultimately quit his job at the post office, and had thereafter devoted significant time to distributing flyers and pamphlets in his neighborhood and at his mosque to publicize his negative views about the US government’s “corrupt” postal practices and arguing that the government should provide free postal services.

*Christian condition:* The defendant in this case, Michael Fenton, is a male who has been charged with attempt to commit terrorism. . . . He ultimately quit his job at the post office, and had thereafter devoted significant time to distributing flyers and pamphlets in his neighborhood and at his church to publicize his negative views about the US government’s “corrupt” postal practices and arguing that the government should provide free postal services.

*Control condition:* The defendant in this case is a male who has been charged with attempt to commit terrorism. . . . He ultimately quit his job at the post office, and had thereafter devoted significant time to distributing flyers and pamphlets to publicize his negative views about the US government's "corrupt" postal practices and arguing that the government should provide free postal services.

B. Attempted Trespass

*Muslim condition:* The defendant in this case, Mohamed Farooq, is a male who has been charged with attempt to commit trespass. . . . The defendant regularly plays a Sunday game of soccer in a neighborhood park with friends from his mosque.

*Christian condition:* The defendant in this case, Michael Fenton, is a male who has been charged with attempt to commit trespass. . . . The defendant regularly plays a Sunday game of soccer in a neighborhood park with friends from his church.

*Control condition:* The defendant in this case is a male who has been charged with attempt to commit trespass. . . . The defendant regularly plays a Sunday game of soccer in a neighborhood park with friends.

### Appendix C Effects of Participant Demographics

The participants were asked to provide information about, inter alia, their age, gender, race, country of residence, citizenship status, political leanings, religiosity, education, and employment status.<sup>319</sup> Noteworthy significant effects that analyses of these demographic variables uncovered are reported below.<sup>320</sup>

In Study 1, the participants' gender exerted the following significant main effects on liability measures when facts pointed toward guilt (regardless of which legal standard they were assigned to apply): Female participants were significantly more likely than male participants to construe the defendant as meeting the act requirement for attempted arson, and they assigned higher ratings on the continuous measure of overall guilt.<sup>321</sup>

In Study 2, the participants' gender exerted the following significant main effects on liability measures in the attempted terrorism condition (regardless of which legal standard they were assigned to apply): Female participants were significantly more likely than male participants to construe the defendant as meeting the mental state and act requirements for attempted trespass, and they assigned higher ratings on the continuous measure of overall guilt.<sup>322</sup>

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319. The gender distribution and mean age of the participants in each of the study samples are included in Part II above.

320. There were additionally some statistically significant three-way interactions that are not reported, because both data analysts concluded that the results did not reflect any discernable patterns in regard to the dependent and independent variables of interest.

321. Results of *t*-tests for effect of participant *gender* on *act*:  $t(192) = 2.01, p = 0.046, d = 0.29$  (corrected for violating Levene's test); and for effect of participant *gender* on continuous measure of *guilt*:  $t(194) = 2.00, p = 0.046, d = 0.29$  (corrected for violating Levene's test).

322. ANOVA for the interaction of participant *gender* and *crime* type on *intent*:  $F(2, 202) = 3.49, p = 0.032, \eta^2_p = 0.033$ . Results of follow-up *t*-test: female-terrorism > male-terrorism:  $t(66) = 2.53, p = 0.014, d = 0.62$ .

ANOVA for the interaction of participant *gender* and *crime* type on *act*:  $F(2, 202) = 3.04, p = 0.05, \eta^2_p = 0.029$ . Results of follow-up *t*-test: female-terrorism > male-terrorism:  $t(66) = 2.50, p = 0.015, d = 0.62$ .

ANOVA for the interaction of participant *gender* and *crime* type on continuous measure of *guilt*:  $F(2, 202) = 3.69, p = 0.027, \eta^2_p = 0.035$ . Results of follow-up *t*-test: female-terrorism > male-terrorism:  $t(66) = 2.77, p = 0.007, d = 0.68$ .

In Study 3a, the participants' age exerted the following main effect (regardless of the law and religion conditions to which they were assigned): Participants in their forties were significantly less likely than participants in their twenties and thirties to construe the defendant as meeting the mental state requirement of criminal intent for attempted terrorism.<sup>323</sup>

In Study 3b, the participants' gender exerted the following main effects (regardless of the law and religion conditions to which they were assigned): Male participants were significantly more likely than female participants to construe the defendant as meeting the act requirement of attempted trespass.<sup>324</sup> Finally, the participants' race/ethnicity exerted the following main effect (regardless of the law and religion conditions to which they were assigned): Participants who reported being of Middle Eastern descent were significantly more likely than participants who identified as white to construe the defendant as meeting the act requirement for attempted trespass.<sup>325</sup>

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323. ANOVA for the effect of participant *age* on *intent*:  $F(3, 257) = 3.00, p < 0.031, \eta^2_p = 0.034$ . Results of follow-up *t*-tests: twenties > forties:  $t(137) = 2.55, p = 0.012, d = 0.44$ ; thirties > forties:  $t(138) = 2.04, p = 0.043, d = 0.35$ .

324. ANOVA for the effect of participant *gender* on *act*:  $F(1, 201) = 5.15, p = 0.024, \eta^2_p = 0.025$ .

325. ANOVA for the effect of participant *race/ethnicity* on *act*:  $F(4, 190) = 2.49, p = 0.044, \eta^2_p = 0.05$ . Results of follow-up *t*-test: Middle Eastern descent > white:  $t(184) = 2.33, p = 0.021, d = 0.34$ .