LEGAL KNOWLEDGE, BELIEF, AND ASPIRATION

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ABSTRACT

The assumption that people know what the law is underlies countless legal prescriptions, and the presumption of legal knowledge plays a central role in many modern legal theories about what law should seek to do. Yet despite the practical and theoretical importance of legal knowledge, there is a surprising dearth of empirical research either on what laws people know, or why—if they get the law wrong—they might mistake it. As a result, even modest empirical contributions about what people know about the law, and when and why they get it wrong, can pay substantial dividends. This piece presents such a contribution: a simple survey of 869 Americans in six states, asking about ten of their own state laws: what they believed those laws to be, and what they thought those laws should be. It finds that people often do not know the laws under which they live—even when they themselves believe those laws to be important. It also finds that, when people's beliefs about the law are inaccurate, they tend to get the law wrong in a predictable direction. More specifically, people seem to assume that the law reflects their aspirations for it: that the law already is whatever they believe it should be. In some cases, the effect of this wishful thinking is so strong that it is possible to predict people's beliefs about what the law is better by knowing what they think a legal rule should be, than by knowing what the legal rule in fact is. The result is a tendency towards a kind of legal fantasy, or phantom representation, where people assume laws reflect their preferences even when they do not. Because the extent and conditions of lay legal knowledge are so understudied, these findings generate a number of implications for legal theory, and a plethora of additional questions that deserve further study.

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I. INTRODUCTION

Do people know the law? On the one hand, it is a brocard, sometimes traced to Aristotle, that *nemo censetur legem ignorare*: "nobody is thought to be ignorant of the law."[1] The same intuition underlies the classic maxim that ignorance of the law is no excuse.[2] The intuition behind these principles has both doctrinal and theoretical heft: it underlies important common law doctrines, including those of excuse and mistake,[3] and informs theoretical accounts of law that presume that law guides behavior.[4]

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1. *See* Edwin R. Keedy, *Ignorance and Mistake in the Criminal Law*, 22 HARV. L. REV. 75, 76–80 (1908) (tracing the concepts of ignorance and mistake to their Roman and English origins, and presenting alternative formulations in criminal law, including *ignorantia legis neminem excusat*; *ignorantia eorum quae quis scire tenetur non excusat*; *ignorantia juris quod quisque tenetur scire, neminem excusat*; and *ignorantia juris hand excusat*).

2. *See* Vera Bolgár, *The Present Function of the Maxim Ignorantia Iuris Neminem Excusat—A Comparative Study*, 52 IOWA L. REV. 626, 627 (1967) (comparing multiple formulations of the presumption that people know the law, and arguing that they "express the same requirement: that men's knowledge of the laws be an integral part of the consequences of their actions"); *see also* Keedy, *supra* note 1, at 81–83.

3. *See* Sharon Davies, *The Jurisprudence of Willfulness: An Evolving Theory of Excusable Ignorance*, 48 DUKE L.J. 341, 342 (1998) (discussing the history and jurisprudence of *ignorantia legis non excusat*—ignorance of the law does not excuse—which it calls "perhaps the most well-rooted maxim in the Anglo-American criminal law"); Keedy, *supra* note 1, at 83. Courts also apply a particularly strong presumption that people know the law in some doctrinal areas, for example in the regulation of dangerous materials. *See, e.g.*, United States v. Int'l Minerals & Chem. Corp., 402 U.S. 558, 565 (1971) (holding that no affirmative showing of knowledge of the law regarding dangerous materials was necessary to establish that a criminal violation was a "knowing violation"). In such cases, courts sometimes justify the strength of their presumption of knowledge by suggesting that knowledge is particularly likely or probable. *See, e.g.*, *id.* at 565 (explaining the strong presumption of knowledge on the grounds that "the probability of regulation is so great that anyone who is aware that he is in possession of [dangerous materials] or dealing with them must be presumed to be aware of the regulation"). *But cf.* Davies, *supra*, at 363–86 (noting other areas of criminal law where the presumption of knowledge is weaker, or where courts require specific evidence of knowledge before finding conduct criminally "willful"). Importantly, though imputations of legal knowledge have particular force in criminal contexts, a presumption of knowledge is also common across other areas of law. *See, e.g.*, DONALD S. CHISUM, 6A CHISUM ON PATENTS § 19.03A (2019) ("[K]nowledge of the law is chargeable to the inventor." (quoting Brasseler, U.S.A. I v. Stryker Sales Corp., 267 F.3d 1370, 1385 (Fed. Cir. 2001))); Fields v. Life & Cas. Ins. Co. of Tennessee, 349 F.Supp. 612, 615 (E.D. Ky. 1972) (explaining that "[a]s a general rule misrepresentations of law are not actionable . . . everyone is presumed to know the law, therefore, no one can be deceived by a misrepresentation regarding it").

4. *See* Brian Tamanaha, *Functions of the Rule of Law*, *in* THE CAMBRIDGE COMPANION TO THE RULE OF LAW 9 (Martin Loughlin & Jens Meierhenrich eds., 2018) (arguing that some presumption of knowledge underlies the guidance function sometimes ascribed to law, and noting Andrei Marmor's observation that "people can only be guided by rules or prescriptions if they know about the existence of the rule or prescription").

On the other hand, as a practical matter, people often seem not know what the law is. In some ways, the legal profession itself depends upon some level of lay ignorance: As the renowned British judge Lord Mansfield observed in the eighteenth century, "it would be very hard upon the [legal] profession, if the law was so certain, that every body knew it."[5] And indeed, periodically, as with jury instructions, courts have taken judicial notice of the fact that laypeople are often ignorant of the law,[6] and scholars have recognized the practical difficulties that knowing the law presents to laypeople in particular: as the esteemed contracts scholar Arthur Corbin lyrically put it, "[t]he law is not written in shining letters against the sky."[7] Nor is expertise in one area of law a guarantee of knowledge in others: As a law professor with the privilege of interacting with many deeply knowledgeable colleagues, I would note that even legal experts may easily be ignorant of areas of law outside their area of expertise.[8]

So do people know the laws under which they live, or don't they? This tension—between, on the one side, the legal presumption that people know the law; and the casual observation, on the other side, that they often seem not to—presents a puzzle for legal scholars and legal policy. Like many such puzzles, it is subject to different kinds of solutions. Ideally, of course, any

5. Jones v. Randall, 98 Eng. Rep. 954, 956 (1774). For further discussion, see *infra* notes 18–24 and accompanying text.

6. *See, e.g.*, Jackson v. State, 26 A.2d 815, 819 (Md. 1942) ("It is difficult to understand how [juries] are to know the law in any particular case if counsel are to be denied the privilege of stating it to them, for the court will take judicial knowledge of the fact that most jurors are laymen, and therefore do not possess knowledge of the law, in spite of the theory or maxim that everyone is presumed to know the law." (citing Wilkerson v. State, 188 A. 813, 814 (Md. 1937)) (citations omitted)); *see also* 2 FARRAGHER J. CAMPBELL, DEFENSE OF SPEEDING, RECKLESS DRIVING & VEHICULAR HOMICIDE § 24.01 (1984) ("The court must equip the jury with that amount of knowledge of the law necessary for the jury's understanding of the case."); V. Woerner, Annotation, *Counsel's Right in Criminal Prosecution To Argue Law or To Read Lawbooks to the Jury*, 67 A.L.R.2d 245 (1959) (summarizing judicial approaches to counsel's presentation of law to juries).

7. *See* 7 ARTHUR LINTON CORBIN & HELEN HADJIYANNAKIS BENDER, CORBIN ON CONTRACTS § 28.49 (Joseph M. Perillo ed., 6th ed. rev. 1951) [hereinafter CORBIN ON CONTRACTS].

8. Readers of this article might reasonably ask how well they themselves know laws outside their area. Do you know, for example, whether people in your state are legally required to report to the authorities if they know that a felony has been committed? Would you, reader, be subject to a waiting period prior to purchasing a handgun? Does your state provide a constitutional right to a clean environment? Each of these questions—on misprision of a felony, handgun waiting periods, and constitutional rights to a clean environment—are included in the survey reported below. The questions used to elicit survey participants' beliefs on these and other topics are presented in Appendix A, and discussed further in the methodology section, *infra* Part III. The author is willing to admit that, prior to performing the research for this study, she was herself ignorant of the correct answer to many of the questions in her home state.

such solution would be informed by empirical evidence about people's actual legal knowledge. Perhaps surprisingly, however, empirical explorations of legal knowledge have thus far been vanishingly scarce.

In the absence of empirical evidence, both early and modern scholars have suggested that there are practical and instrumental reasons for assuming that people know what the law is—even if they in fact do not. John Selden, for example—often cited as the originator of the English phrase "ignorance of the law is no excuse"—defended the phrase as justified "not [because] all men know the law, but because 'tis an excuse every man will plead, and no man can tell how to confute him."[9] Or consider the more modern reasoning of Professor Sharon Davies, who has argued for an expansion of the maxim presuming legal knowledge, explaining that "[w]hile sometimes harsh, the gains secured by the maxim—a better educated and more law-abiding citizenry, and the avoidance of pervasive mistake of law claims—are thought to outweigh any individual injustice resulting from its application."[10]

Unfortunately, as behavioral and empirical scholars have chronicled, building legal policy on the basis of inaccurate behavioral presumptions is dangerous and, in some cases, may even undermine the law's ability to effect its own purposes.[11] Inaccurate presumptions can lead to inaccurate predictions of how people will respond to legal rules and incentives,[12] and can also lead to individualized instances of injustice (where someone is, for example, punished for having acted knowingly when s/he in fact lacked knowledge). To guide people's behavior effectively via law, it is important to be able to accurately predict how people will understand the law; inaccurate assumptions about people's subjective knowledge undermine that

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9. *See* JOHN SELDEN, TABLE-TALK 65 (Edward Arber ed., A. Murray & Son 1869) (1689).

10. *See* Davies, *supra* note 3, at 343; *see also* CORBIN ON CONTRACTS, *supra* note 7 (providing similar reasons for adopting *ignorantia juris non excusat*, despite the recognition that people are often ignorant of the law).

11. Consider, for example, how a presumption of rationality has been undermined in recent decades by empirical scholarship in law and behavior; exploring violations of the presumption of rationality birthed the field of behavioral law and economics, and has given a significant boost to the empirical legal movement now underway. *See generally* THE OXFORD HANDBOOK OF BEHAVIORAL ECONOMICS AND LAW (Eyal Zamir & Doron Teichman, eds., Oxford Univ. Press 2014); Christine Jolls, Cass R. Sunstein & Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1471 (1998) (building on empirical research to argue that people exhibit "bounded rationality," "bounded self-interest," and "bounded willpower," in contravention of the presumption of rational self-interest); Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CALIF. L. REV. 1051 (2000).

12. *See* Korobkin & Ulen, *supra* note 11, at 1127; *see also* Thomas S. Ulen, *The Importance of Behavioral Law*, *in* THE OXFORD HANDBOOK OF BEHAVIORAL ECONOMICS AND LAW, *supra* note 13, at 93–102 (describing the dangers of building law on mistaken behavioral models).

function.[13] Legal policies adopted on the inaccurate assumption that people will know about them may fail in effecting their underlying goals.

This suggests that it would be helpful to build empirical data about how much people do, in fact, know about the laws they live under; and if possible, to inform when people get the law wrong. Such empirical data can be used to inform the extent to which presumptions of legal knowledge are in fact descriptive (i.e. the extent to which people actually do tend to know the laws under which they live), versus merely practical (e.g. where it is not worth the difficulty of trying to figure out how much people know of the law) or instrumental (e.g. where it creates useful incentives to presume legal knowledge).

This article attempts to jumpstart that empirical exploration, by presenting the results of a simple empirical study of what people believe the law to be, and what they report they think the law should be. The study addressed ten state laws—on the death penalty, at-will employment, requirement to report felonies, state constitutional rights, income tax, texting and driving, handgun waiting periods, abortion waiting periods, medical malpractice damage caps, and regulatory limits on drones—that represented a wide range of legal and practice areas.

The study had two basic parts. The first is a classic multi-state legal survey, which involved coding the recorded law in six states (California, Florida, Illinois, Montana, North Dakota, Texas) for the ten selected state laws. This portion of the project provided an "objective" measure of what experts would understand the selected laws to be in each of the six states.

The second part of the study involved an original survey, which was administered to 869 participants in the six selected states. Participants were asked to identify their subjective belief about each law in their state, as well as their normative aspirations for what each law should be. These subjective answers could then be compared to the objective or expert measure, as well as to one another. This provided a measure of three things: (1) participants' legal knowledge (when their belief about the law matched the objective recorded law in their state), (2) the dissonance participants experienced (when their belief about the law was in conflict with what they thought the law should be), and (3) how well participants' normative aspirations for the law were reflected in the laws under which they lived (measured by the extent to which participants' normative aspirations for the law matched the objective recorded law for their state).

The results are have two critical takeaways. First, though rates of legal knowledge varied, for none of the rules surveyed was there perfect

13. *See, e.g.*, Tamanaha, *supra* note 4.

knowledge of state law. Or in other words, the study found that a strong presumption of legal knowledge would be descriptively inaccurate in every area of law surveyed.

Second, and perhaps even more intriguingly, the results showed that when people mistook a law, they tended to do so in a predictable direction: participants tended to believe that the law already was whatever they thought it should be, and/or that the law should be whatever they believed it already was. Over multiple legal topics in multiple states, when participants mistook the law, they did so in this optimistic direction about two-thirds of the time. In some cases, the effect of this distortion was so strong that it is possible to more accurately predict what people believe their state law to be by knowing what they think it *should be*, than by knowing what the legal rule actually *is*. These results suggest that different people have different subjective beliefs about the same laws, and that those beliefs vary according to their individual normative commitments.

Even these simple findings have significant practical and theoretical implications, particularly for legal theories that relate to the guidance function of law, including theories of deterrence, notice, the expressive effect of law, and democratic representation.[14] In future, legal scholars should recognize that strong presumptions of legal knowledge lack empirical support, and may even be subject to systematic error.

The remainder of this article proceeds as follows. Part II explores why it is important to inquire into lay legal knowledge. Part III presents the survey and results. Part IV explores some of the practical and theoretical implications of the survey findings. Finally, Part V lays the groundwork for further study by identifying continuing limitations in what we know about what people know about the law, and by pointing to some important opportunities for continued research.

II. BACKGROUND AND CONTEXT

A. Why Does It Matter What Nonexperts Believe the Law To Be?

Legal experts are accustomed to valuing the legal perceptions of other legal experts. Law professors cite other law professors in their area of expertise, and pop into their colleagues' offices when they encounter something beyond their specialty; judges confer with fellow judges, and with the judicial opinions of the past; attorneys cite cases and secondary materials, and call upon their own specialized experience in similar cases. Similarly, to

14. *See* discussion *infra* Part III.

the extent that legal epistemology—the study of how people know things about the law[15]—is a field,[16] it has largely restricted itself to the epistemology of expert legal thought.[17]

The legal knowledge of laypeople, however, remains understudied. Definitionally, laypeople are likely to know less about the law than legal experts.[18] But how much less—and under what circumstances—remains largely unknown. Furthermore, legal experts and laypeople may differ not only in how much they know, but in how they process what they know. Such expert/public gaps in perception are common in many other areas;[19] often, for example, people tend to be more subject to cognitive bias in areas in which they are not expert.[20] To the extent these divergences in ways of knowing arise within legal knowledge, it suggests that study even of expert legal epistemology may mislead as to how regular people learn and know the law.

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15. For a more formal discussion of how legal epistemology should be conceived—with a focus on the legal epistemology of experts—see DÉIRDRE DWYER, THE JUDICIAL ASSESSMENT OF EXPERT EVIDENCE 20 (2008) (defining legal epistemology as "the creation and justification of beliefs in a legal context"); LARRY LAUDAN, TRUTH, ERROR, AND CRIMINAL LAW 2 (2006) (defining "legal epistemology" as "the study of whether systems of investigation that purport to be seeking the truth are well engineered to lead to true beliefs about the world").

16. *See* DWYER, *supra* note 15, at 19 ("The term 'legal epistemology' may be an unfamiliar one to most lawyers."); LAUDAN, *supra* note 15, at 233 ("The epistemology of the law, is inexplicably still a nascent subject.").

17. *See, e.g.*, DWYER, *supra* note 15, at 21–22 (arguing that "while classical epistemology is concerned with how individuals develop justified beliefs, legal epistemology is concerned with the collaborative formation of the same," and devoting the remainder of her analysis to mechanisms of judicial and expert belief formation); LAUDAN, *supra* note 15, at 3 (focusing on the epistemology of legal evidence and its impact on judges and expert legal decision makers; arguing that "[l]egal epistemology, properly conceived, involves both a) the *descriptive* project of determining which existing rules promote and which thwart [expert] truth seeking and b) the *normative* one of proposing changes in existing rules to eliminate or modify those rules that turn out to be serious obstacles to finding the truth").

18. *See Layperson*, OXFORD POCKET ENGLISH DICTIONARY 517 (11th ed. 2013) (defining "layperson" as "a person without professional or specialized knowledge in a particular subject," and providing "non-expert" as a synonym). Courts often recognize this distinction through their doctrines regarding jury instruction. *See generally* LAUDAN, *supra* note 15.

19. Consider, for example, the treatment of the legal and democratic implications of expert/lay "disagreements" about perception of risk. *See* Dan M. Kahan & Paul Slovic, *Cultural Evaluations of Risk: "Values" or "Blunders"?*, 119 HARV. L. REV. F. 166, 168–69 (2006); *see also* Cass R. Sunstein, *Misfearing: A Reply*, 119 HARV. L. REV. 1110, 1114–15 (2006). For treatments of the underlying differences in perceiving and understanding risk, see PAUL SLOVIC, THE PERCEPTION OF RISK 316–26 (2000); James Flynn, Paul Slovic & C.K. Mertz, *Decidedly Different: Expert and Public Views of Risk from a Radioactive Waste Repository*, 13 RISK ANALYSIS 643, 643–48 (1993); Ellen Peters et al., *Numeracy Skill and the Communication, Comprehension, and Use of Risk-Benefit Information*, 26 HEALTH AFF. 741–48 (2007).

20. *See, e.g.*, SLOVIC, *supra* note 19, at 5.

Of course, as in other areas of life, laypeople may choose to confer with experts to bring their views into alignment with experts'.[21] The more this happens, the less people's intuitive understanding of the law may matter to their final behaviors. And of course, people *do* sometimes consult with attorneys, and often at least in part to gain the benefit of their expert knowledge.[22] In these cases, whatever intuitive knowledge people may have of the law will be tempered by the knowledge of the experts with whom they consult.

There are at least two reasons, however, why laypeople's understanding of the law remains important, despite the possibility of periodic expert consultation. These are: first, because many—maybe even most—legal disputes are resolved by laypeople, and second, because, in a democracy, laypeople play a critical role as citizens in pushing (or failing to push) for legal change.

First, consider the role laypeople play in resolving legal problems. Empirical work suggests that most potential legal disputes never involve contact with an attorney or a court.[23] Instead, based on their own

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21. This point is sometimes used, in fact, as a reason why laypeople may reasonably be presumed to know the law. *See, e.g.*, Andrei Marmor, *The Rule of Law and Its Limits*, 23 LAW & PHIL. 1, 16 (2004); *see also* Tamanaha, *supra* note 4 (rejecting this argument).

22. In the U.S. alone, such layperson/expert consultations generate hundreds of billions of dollars of fees each year. *See* LEGAL EXEC. INST., HOW BIG IS THE U.S. LEGAL SERVICES MARKET? (2015), http://www.legalexecutiveinstitute.com/wp-content/uploads/2016/01/How-Big-is-the-US-Legal-Services-Market.pdf [https://perma.cc/4LWM-YD53] (arguing that the "total U.S. legal-services market has grown to ≈$437B"); Bill Henderson, *Size of the US Legal Market by Type of Client*, LEGAL WHITEBOARD (Jan. 4, 2015), http://lawprofessors.typepad.com/legalwhiteboard/2015/01/size-of-the-us-legal-market-by-type-of-client.html [https://perma.cc/Q5RJ-LM9H] (estimating the national market to be $275 billion); *see also* Frank Strong, *What Size Is the Addressable US Legal Market?*, BUS. L. BLOG (Jan. 15, 2015), http://businessoflawblog.com/2015/01/addressable-us-legal-market/ [https://perma.cc/9N72-E9N5] (citing multiple attempts to estimate the size of the legal market, ranging between $100 and $400 billion, and explaining that "[w]e know the legal market is large but just how large, is largely dependent on the parameters in use").

23. *See* Rebecca L. Sandefur, *What We Know and Need To Know About the Legal Needs of the Public*, 67 S.C. L. REV. 443, 447–48 (2016) (summarizing empirical work in this realm, and explaining that "[w]hile civil justice problems are common in the United States, turning to the legal system to try to handle them is not"). Although there is strong evidence that most potential legal disputes are not resolved by legal experts, the reason(s) laypeople do not typically turn to experts for remains debated. *Compare, e.g.*, Herbert M. Kritzer, *To Lawyer or Not to Lawyer:* Is *That the Question?*, 5 J. EMPIRICAL LEGAL STUD. 875, 875 (2008) (finding that "the decision to use a lawyer appears to be much more a function of the nature of the dispute" than income or affordability) *with* Gillian Hadfield & Jamie Heine, *Law in the Law-Thick World: The Legal Resource Landscape for Ordinary Americans*, in BEYOND ELITE LAW: ACCESS IN CIVIL JUSTICE FOR ORDINARY AMERICANS 21–52 (Samuel Estreicher & Joy Radice eds., 2016) (emphasizing the

understanding of their situation, individuals select amongst a range of other options. Sometimes the people affected do nothing at all.[24] More frequently, individuals resolve their disputes themselves,[25] or seek help from their social network.[26] Resolution of these disputes happens, presumably, in the shadow of the law[27]—or more acutely, in the *perceived* shadow of the law. Where the shape of those shadows—the law as experts understand it, and the law that the public believes to exist—diverge, private settlement may diverge in substance as well as form from legal resolution of the same claims.[28]

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importance of cost in access to expert consultation, but also concluding that there is a high unmet need in both civil and criminal matters).

24. Some research suggests that people do nothing in response to potential legal disputes in about one out of every six cases. *See* REBECCA L. SANDEFUR, AM. BAR FOUND., ACCESSING JUSTICE IN THE CONTEMPORARY USA: FINDINGS FROM THE COMMUNITY NEEDS AND SERVICES STUDY 11 (2014) [hereinafter SANDEFUR, ACCESSING JUSTICE] (finding that 16% of people reported doing "nothing" in response to civil justice situations); Rebecca L. Sandefur, *The Importance of Doing Nothing: Everyday Problems and Responses of Inaction*, *in* TRANSFORMING LIVES: LAW AND SOCIAL PROCESS 112, 112–13 (Pascoe Pleasence et al. eds., 2007). In such cases, people often do not recognize even clearly justiciable disputes as "legal" or as implicating legal rights. *See* William L.F. Felstiner et al., *The Emergence and Transformation of Disputes: Naming, Blaming, Claiming . . .*, 15 LAW & SOC'Y REV. 631, 633 (1980); *see also* Sandefur, *supra* note 23 at 448–49 (summarizing sociolegal research on the perception of civil justice claims as legal, and concluding that "[w]hether investigating suburbia, cattle ranchers, small towns, poor mothers, churchgoers, or people harassed in public, researchers consistently find that problems that look legal to lawyers do not seem particularly legal to the people who experience them").

25. *See* Sandefur, *supra* note 23, at 448 (noting that "[t]hough Americans seldom go to law with their justice problems, they frequently try to do something about them," and citing research showing that "[t]he most common course of action is self-help: trying to handle the situation on one's own").

26. Reliance on social networks might involve appealing to the type of norms developed within close-knit communities, *see, e.g.*, Robert C. Ellickson, *Of Coase and Cattle: Dispute Resolution Among Neighbors in Shasta County*, 38 STAN. L. REV. 623, 672–76 (1986) (discussing dispute resolution amongst a close-knit community of rural landowners in Shasta County, California), and/or appealing to a looser, wider range of connections, *see, e.g.*, Sandefur, *supra* note 23, at 448 ("When Americans do connect with assistance, they go to a wide range of sources, including churches, housing counselors, social workers, city agencies, national membership organizations, the Better Business Bureau, and their elected representatives."); Rebecca L. Sandefur, *The Fulcrum Point of Equal Access to Justice: Legal and Nonlegal Institutions of Remedy*, 42 LOY. L.A. L. REV. 949, 959–60 (2009) (describing a broad range of nonlegal institutions used to remedy disputes).

27. *See* Robert H. Mnookin & Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950, 996–97 (1979).

28. The potential of this "shadow gap" should be understood to have particularly strong implications for areas of legal scholarship that rely heavily upon the shadow-of-the-law model of dispute resolution. For example, the shadow-of-the-law model of dispute resolution plays a particularly large role in plea bargaining and civil settlement literature. For classic treatments of the "shadow-of-the-law" in civil settlement, see Robert Cooter et al., *Bargaining in the Shadow of the Law: A Testable Model of Strategic Behavior*, 11 J. LEGAL STUD. 225, 226–27 (1982); George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD.

Second, consider that laypeople can play important roles as citizens, who may choose to push (or not) for legal change. Such actions might come through judicial institutions, as with citizen suits; through regulatory institutions, as with the provision of comments on proposed regulations; or through engagement with the political process. Even beyond the choice to sue or not, voting, donating to political candidates and causes, and engaging in other political actions all empower laypeople to help determine what the law will be. Political scientists and other social scientists continue to explore the exact mechanisms that lead people to engage in political action.[29] That said, accurate information about matters of public concern is often considered a prerequisite to effective political action.[30] Similar dynamics may underlie political inaction: a citizen who chooses not to contact her legislator about a law, for example, presumably makes her choice at least in part on the basis of her belief about what the law is. Whether her belief is correct or incorrect, it has political consequences.

At least in theory, negotiations or political action undertaken in a misperceived shadow of the law could exhibit several different tendencies. One possibility is that such "shadow misalignment" could be both underinclusive and overinclusive, with members of the public misperceiving the shape of the law in both directions: thinking that the law does not address

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1, 4 (1984); Steven Shavell, *Suit, Settlement, and Trial: A Theoretical Analysis Under Alternative Methods for the Allocation of Legal Costs*, 11 J. LEGAL STUD. 55, 63–66 (1982). For influential treatments in the plea-bargaining context, see Frank H. Easterbrook, *Criminal Procedure as a Market System*, 12 J. LEGAL STUD. 289, 297–98 (1983); William M. Landes, *An Economic Analysis of the Courts*, 14 J.L. & ECON. 61, 61–62 (1971); Robert E. Scott & William J. Stuntz, *Plea Bargaining as Contract*, 101 YALE L.J. 1909, 1910 (1992). *See also* Stephanos Bibas, *Plea Bargaining Outside the Shadow of Trial*, 117 HARV. L. REV. 2463, 2464 (2004) (reviewing the importance of the shadow-of-trial model in plea bargaining, and arguing that "structural distortions skew bargaining outcomes" so that "uncertainty, money, self-interest, and demographic variation greatly influence plea bargains"). For a valuable treatment of how the perception of a law's effectiveness may impact behavior, even where the perception is inaccurate, see Amitai Aviram, *The Placebo Effect of Law: Law's Role in Manipulating Perceptions*, 75 GEO. WASH. L. REV. 54 (2006).

29. *See, e.g.*, CIVIC ENGAGEMENT IN AMERICAN DEMOCRACY (Theda Skocpol & Morris P. Fiorina eds., 2004) (providing multiple views of reasons and institutions underlying civic engagement); *see also* PETER DAHLGREN, MEDIA AND POLITICAL ENGAGEMENT: CITIZENS, COMMUNICATION AND DEMOCRACY 14–29, 34–56 (2009) (arguing that citizens' political engagement is declining as a result of cultural factors and the impact of interactive electronic media).

30. *See, e.g.*, William A. Galston, *Political Knowledge, Political Engagement, and Civic Education*, 4 ANN. REV. POL. SCI. 217, 220–21 (2001) (calling for continued investment in civic education as a prerequisite to developing the political knowledge necessary for political engagement); *see also* Stephen E. Bennett, *Why Young Americans Hate Politics, and What We Should Do About It*, 30 PS: POL. SCI. & POL. 47, 50–52 (1997).

claims and issues that it does, and/or thinking that the law does address claims and issues that it does not. In such cases, there might even be very little overlap between objective accounts of the law and subjective perceptions of it. If mistakes about the law were to take this form, and particularly if they tended to be evenly spread across the population, we might at least take some comfort in thinking that they might introduce little if any substantive skew into the political process.

Alternatively, it could be that people make systematic errors in their perception of the law, and perceive "the law" as generally smaller or larger than it is. In such cases, risks of mistake might be all or mostly in one direction: towards thinking that the law does more than it does (overinclusivity) or towards thinking that the law does less than it in fact does (underinclusivity).[31] Depending upon which of these scenarios plays out, policymakers should plausibly adopt different approaches to managing disputes—and should be awake to different types of potential democratic distortions, as people who mistake the law may also mistake where to place democratic pressure. Yet our understanding of how people perceive the law remains so piecemeal that it is hard to capture much, if any, of the general contours of these relationships.

Another possibility is that different individuals could "see" the law differently, depending upon their prior beliefs, commitments, and values. Such divergences might occur not only as between experts and the public, but also amongst different non-expert individuals. Such a phenomenon would be consistent with research on motivated cognition, which suggests that people tend to perceive the world around them through the lens of their own motivations.[32] As a result, fans rooting for different teams at the same game

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31. Perhaps the most relevant evidence on these points relates to the documented tendency of many people to perceive disputes that strike experts as "legal" as non-legal, and often worthy of no resolution whatsoever; one way to understand these findings is that people are generally perceiving the law as "smaller" than experts do; as reaching fewer disputes and fewer cases. *See* SANDEFUR, ACCESSING JUSTICE, *supra* note 24, at 11 (finding that 16% of people reported doing "nothing" in response to potential legal disputes); Sandefur, *supra* note 23, at 448–49 (summarizing sociolegal research on the perception of civil justice claims as legal, and concluding that "[w]hether investigating suburbia, cattle ranchers, small towns, poor mothers, churchgoers, or people harassed in public, researchers consistently find that problems that look legal to lawyers do not seem particularly legal to the people who experience them"); *see also* Felstiner et al., *supra* note 24, at 63. On the other hand, in some cases, people may co-opt legal language and legal structure for issues and topics that experts would argue the law does not reach—an effect that would tend to make the law "larger" than it is. *See, e.g.*, Lesley Wexler et al., *#Me Too, Time's Up, and Theories of Justice* 11, 13 (Univ. of Ill. Coll. of Law Legal Studies, Research Paper No. 18-14, Mar. 2018).

32. *See* Emily Balcetis & David Dunning, *See What You Want To See: Motivational Influences on Visual Perception*, 91 J. PERSONALITY & SOC. PSYCHOL. 612, 612 (2006) (tracking

may sincerely evaluate officiants' calls in opposite directions; [33] people reading unclear text may subconsciously adopt the interpretation that they favor;[34] readers asked to evaluate the same evidence may produce interpretations that are supportive of their preferred conclusion.[35] Nor is the power of motivated reasoning limited to shifting perceptions of "facts"; a closely related phenomenon—just world bias—suggests that people tend to assume that the world around them conforms to their basic normative preferences,[36] and other research suggests that people conform their standards of judgment to their pre-existing factual and normative beliefs.[37] Disturbingly, motivated cognition can even subversively deform people's attempts to test their own hypotheses, or to question their own beliefs.[38] The resulting impact on behavior has a number of names, including cognitive

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eye movements and finding that subjects' eye movements typically sought to support preferred perceptions); Drew Westen et al., *Neural Bases of Motivated Reasoning: An fMRI Study of Emotional Constraints on Partisan Political Judgment in the 2004 U.S. Presidential Election*, 18 J. COGNITIVE NEUROSCIENCE 1947, 1947 (2006) (finding neuroimaging evidence for motivated reasoning).

33. *See* Albert H. Hastorf & Hadley Cantril, *They Saw a Game: A Case Study*, 49 J. ABNORMAL & SOC. PSYCHOL. 129, 130–32 (1954) (finding, in a now-famous study, that students from competing Ivy League institutions were more likely to perceive officiant error when penalties were assessed on their home team than when they were imposed on the rival team).

34. Balcetis & Dunning, *supra* note 32, at 615 (finding that people's motivational states measurably influenced their processing of visual stimuli—e.g., whether an ambiguous symbol was the letter "B" or the number "13," although participants were unaware of the effect).

35. *See* Charles G. Lord, Lee Ross & Mark R. Lepper, *Biased Assimilation and Attitude Polarization: The Effects of Prior Theories on Subsequently Considered Evidence*, 37 J. PERSONALITY & SOC. PSYCHOL. 2098, 2098 (1979) (finding that subjects asked to evaluate mixed evidence on the effectiveness of capital punishment in deterring crime routinely found that subjects rated reports that agreed with their prior beliefs as being better conducted and more convincing, and that reading mixed evidence led to increased polarization of prior beliefs).

36. *See* Claire A. Hill, *Rationality in an Unjust World: A Research Agenda*, 35 QUEEN'S L.J. 185, 213 (2009).

37. Anca M. Miron et al., *Motivated Shifting of Justice Standards*, 36 PERSONALITY & SOC. PSYCHOL. BULL. 768, 776 (2010) (finding that people tend to shift the standard of judgment they use to evaluate action by in-group actors leniently and out-group actors more stringently).

38. *See* JONATHAN BARON, THINKING AND DECIDING 170–77 (4th ed. 2008) (discussing the psychology of hypothesis testing in the context of research on congruence bias).

dissonance avoidance,[39] confirmation bias,[40] congruence bias,[41] and biased assimilation.[42]

Although there has been substantial empirical work on how motivated cognition may lead people to interpret legally-relevant *facts* differently, depending upon their normative priors,[43] there is little research on whether people with different normative priors also have different perceptions of the law itself. As a result, it remains an open empirical question whether—and if so, how—people fall prey to motivated cognition when they are developing their beliefs about the laws under which they live.

B. What We Know About What People Know About the Law

Our knowledge about lay legal knowledge is fragmented and incomplete—perhaps disturbingly so, given the common presumption that people know the law. Still, two lines of research provide intriguing glimpses into the possibilities of how much laypeople know about the law. These studies provide important groundwork for the study presented in the following Part.

The first line of research relates to employment rights, and traces back to Pauline Kim's landmark work on employment contract default rules. Kim administered an exhaustive written survey on employment law to more than 330 unemployed workers in St. Louis, Missouri,[44] and found "a striking level

39. *Id.* at 56–57 (presenting a classification of biases, including a category of "Motivated Bias—Myside Bias and Wishful Thinking"); *see also* Cass R. Sunstein, *Human Behavior and the Law of Work*, 87 VA. L. REV. 205 (2001).

40. Clifford R. Mynatt, Michael E. Doherty & Ryan D. Tweney, *Confirmation Bias in a Simulated Research Environment: An Experimental Study of Scientific Inference*, 29 Q.J. EXPERIMENTAL PSYCHOL. 85, 93–94 (1977) (finding that people tend to seek to confirm their own hypotheses rather than to disprove them).

41. *See* BARON, *supra* note 38, at 171–74; Jane Beattie & Jonathan Baron, *Confirmation and Matching Bias in Hypothesis Testing*, 40A Q.J. EXPERIMENTAL PSYCHOL. 269, 292 (1988).

42. *See* Lord, Ross & Lepper, *supra* note 35, at 2098.

43. For a number of intriguing projects, see *The Cultural Cognition Project*, YALE L. SCH., http://www.culturalcognition.net/ [http://perma.cc/Y7N8-QLXU] (last visited Jan. 16, 2019) (studying how political and cultural values shape public risk perceptions and related policy preferences; as the project describes itself, "[c]ultural cognition refers to the tendency of individuals to conform their beliefs about disputed matters of fact (e.g. whether . . . the death penalty deters murder . . .) to values that define their cultural identities"). For an example of the cultural cognition in applied form, see Dan M. Kahan, David A. Hoffman & Donald Braman, *Whose Eyes Are You Going to Believe?* Scott v. Harris *and the Perils of Cognitive Illiberalism*, 122 HARV. L. REV. 838, 838 (2009) (analyzing the relationship between cultural and political priors and how risky people perceived a police chase to be).

44. *See* Pauline T. Kim, *Bargaining with Imperfect Information: A Study of Worker Perceptions of Legal Protection in an At-Will World*, 83 CORNELL L. REV. 105, 110 (1998).

of misunderstanding among respondents of the most basic legal rules governing the employment relationship."[45] Furthermore, the direction of errors was systematic: workers consistently *overestimated* the degree of job protection that was afforded them by law, believing that they had far more rights not to be fired without good cause than they in fact had.[46] Subsequent studies have replicated Kim's findings in multiple states in regards to employment contract default rules,[47] and together, these studies provide excellent, topic-specific information about how much workers tend to know about default employment terms (which is not very much).

The depth of knowledge here is valuable, but at least in isolation, it is difficult to know how broadly to generalize from the findings on worker knowledge of employment contract laws. Do people know significantly less (or more) about employment contracts than they do about other types of laws? Or might we reasonably assume a similar level of knowledge for criminal laws, regulations, and constitutional law? It might seem ridiculous to even imagine generalizing from one type of law to another, but since other areas lack data about the public's legal knowledge, perhaps the most reasonable empirical starting point for expectations of legal knowledge actually *should* be the rates and levels of knowledge detected by Kim for employment contracts.

If this seems like a worrisome move, it may be because of an intuition that different types of law may be importantly different from one another, in ways that might affect people's beliefs about them. To develop a more thorough accounting of legal knowledge, then—and to have more educated guesses about people's likely level of legal knowledge across diverse legal areas—it

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45. *Id.* at 133.

46. *Id.* at 133–34. Of the Missouri workers surveyed, for example, 89% of respondents erroneously believed that the law would forbid an employer to terminate an at-will employee out of personal dislike. *Id.* at 110–11. Kim also found that the vast majority erroneously believed that an employer could not legally fire an employee based on a mistaken belief about the employee's own wrongdoing (87.2%); to hire someone else at a lower wage (82.2%); or for reporting internal wrongdoing by another employee (79.2%). *Id.* at 133–34.

47. Kim did follow-up studies in California and New York. Like the Missouri study, these revealed "high levels of error" in people's knowledge as well, "reflect[ing] widespread misunderstanding of the relevant legal rules." Pauline T. Kim, *Norms, Learning, and Law: Exploring the Influences on Workers' Legal Knowledge*, 1999 U. ILL. L. REV. 447, 451, 458. In that piece, Kim also explores the possibility that variations in state exceptions to default rules or changing burden-shifting might affect workers' knowledge of the law. She concludes that "doctrinal variations have no measurable effect on workers' perceptions of their legal protection." *Id.* at 473; *see also* Jesse Rudy, *What They Don't Know Won't Hurt Them: Defending Employment-at-Will in Light of Findings That Employees Believe They Possess Just Cause Protectio*n, 23 BERKELEY J. EMP. & LAB. L. 307, 311 (2002) (replicating Kim's results with some methodological tweaks).

would be useful to identify plausible candidates for the kinds of things that might affect people's knowledge of the law. One obvious possibility—that the legal rule itself might drive people's beliefs about the law—was not supported by Kim's work on employment contracts, which found that "doctrinal variations have no measurable effect on workers' perceptions of their legal protection."[48] Another possibility—that people's normative values have an important relationship with their subjective beliefs about the law—was not measured by Kim, whose focus was explicitly on testing "knowledge of what the law *is*," rather than "what respondents believed the law *should* be."[49] But other research suggests that most workers do generally consider protective for-cause employment rules—rather than the far more common at-will defaults—to be more in line with their intuitions of fairness.[50] Might this be explanatory of some of Kim's findings that workers tended to assume that they had more protection from termination than they actually did? In response to this research, and in light of some of the behavioral research canvassed above, Cass Sunstein has speculated that workers' mistaken impressions of the law may be a product of a "fairness heuristic," and to a desire to reduce cognitive dissonance: in other words, to motivated cognition.[51] "Sometimes," Sunstein speculates, "people might believe that the law is as they wish it to be."[52] But if this speculation is right, is it right only for employment rules, or for some category of additional laws as well?

The challenge of generalization has led scholars in this area to embrace disciplinary modesty. The best example of this is in the second line of research particularly worth reviewing, which focuses specifically on criminal laws, and on the intuitions that underlie them. Here, the touchstone piece is Darley, Carlsmith, and Robinson's article on the *The Ex Ante Function of the Criminal Law*,[53] which looked specifically at the relationships between criminal law, legal belief and people's normative preferences. That study asked participants in four states (Texas, South Dakota, North Dakota, and Wisconsin) about four criminal law issues that the authors selected as "important": misprision of a felony, duty to assist, duty to retreat, and deadly

48. *See* Kim, *supra* note 47, at 473 (exploring the possibility that variations in state exceptions to default rules or changing the burden-shifting might affect workers' knowledge of the law).

49. Kim, *supra* note 44, at 125 (distinguishing prior studies for this reason).

50. *See* RICHARD FREEMAN & JOEL ROGERS, WHAT WORKERS WANT 118–21 (1999).

51. *See* Sunstein, *supra* note 39, at 229–31.

52. *Id.* at 231.

53. John M. Darley, Kevin M. Carlsmith & Paul H. Robinson, *The Ex Ante Function of the Criminal Law*, 35 LAW & SOC'Y REV. 165, 170–71 (2001).

force against property.[54] The topics were chosen so that each state was an "outlier" on one law: each had at least one law in which it had adopted a minority rule. The study, performed on 203 employees of state university systems, used a survey design that presented each participant with four short vignettes (of approximately 150 words each) describing potentially illegal behaviors. As with Kim's study, the primary purpose of the study was to determine legal knowledge: "to determine whether people are aware of the lines drawn by [criminal] legal codes in the United States."[55] To answer this question, the study examined whether, for each rule, participants in states with "deviant" law perceived the law differently than participants in majority-rule states. The study found that, for three of the four criminal laws surveyed, participants in states with "outlier" laws did not have detectably different beliefs or preferences about the law than participants with states with "majority" law.[56]

While Darley et al.'s study was focused on people's knowledge of the criminal law, it also collected information about what their participants thought these criminal laws *should be*, as well as how they thought that the protagonists in the vignettes should be punished for their behavior. Furthermore, the study detected a significant relationship between what people thought the criminal law in their state should be, and what they reported it as actually being.[57] Drawing on research on "false consensus effect," a form of motivated cognition which has found that people tend to overestimate the prevalence of their own views,[58] and on structural equation modeling, which allows for some causal inference, Darley et al. then concluded that participants "decided what they believed to be the lines between criminal and noncriminal actions—essentially a moral judgment—by assuming that their state had 'gotten it right'; they guessed that the law of the state was what their personal opinion thought it should be."[59] Darley et al. concluded that, for important criminal laws where there are "deviant" states

54. *Id.* at 169–71; *see also id.* at 167 (explaining the selection of the topics on the grounds that "they are genuinely important").

55. *Id.* at 166.

56. *Id.* at 181 (explaining that "the citizens of states that hold deviant versions of these laws are unaware of their content," and concluding that, with one exception, "citizens showed no particular knowledge of the laws of their states"). For one of the four laws surveyed—on whether it is legal to defend property with deadly force—Texans were generally aware of their minority law. *Id.*

57. *See id.* at 183.

58. *See* Lee Ross, David Greene & Pamela House, *The "False Consensus Effect": An Egocentric Bias in Social Perception and Attribution Processes*, 13 J. EXPERIMENTAL SOC. PSYCHOL. 279, 279 (1977).

59. Darley, Carlsmith & Robinson, *supra* note 53, at 181.

adopting non-majority rules, people tend to be unaware of their state's deviant rule. Furthermore, when people mistake these laws, they tend to assume that the laws comport with their own normative intuitions for what the law should be—a finding that is consistent with the general research on motivated cognition.[60]

Darley et al.'s study is by far the best empirical study of which I am aware evaluating lay knowledge of law, and particularly evaluating its relationship to normative aspiration. Yet the study poses particular challenges in generalizability, not least because its authors restricted their conclusions to criminal law, on the assumption that people might have special moral intuitions, lacking in other areas of law, about criminal law in particular.[61] *Do* the phenomena they track apply outside criminal law, or is there something special about how criminal law operates, as they suggest? Their study was purposefully limited to laws that struck them as "important";[62] do unimportant laws operate differently? If non-criminal and/or unimportant laws do operate differently, are they better- or worse-known? Are they more or less susceptible to motivated cognition? What about the fact that all the laws studied were adopted via state criminal codes: would public knowledge differ if the relevant law were instead common law, regulatory, or Constitutional? These questions deserve additional research.

III. A SIMPLE SURVEY

The purpose of this study was to evaluate laypeople's legal knowledge of a variety of the laws under which they live, and to inform whether—when laypeople get the law wrong—they tend to do so in a systematic or predictable fashion. The study incorporated laws of varying subject matter (including criminal, tort, property, environmental, health, transportation, contracts, and tax), with varying sources (including statutory law, common law, constitutional law, and regulation) and with various levels of subject-rated importance.

60. See *supra* note 51 and accompanying text regarding motivated cognition.

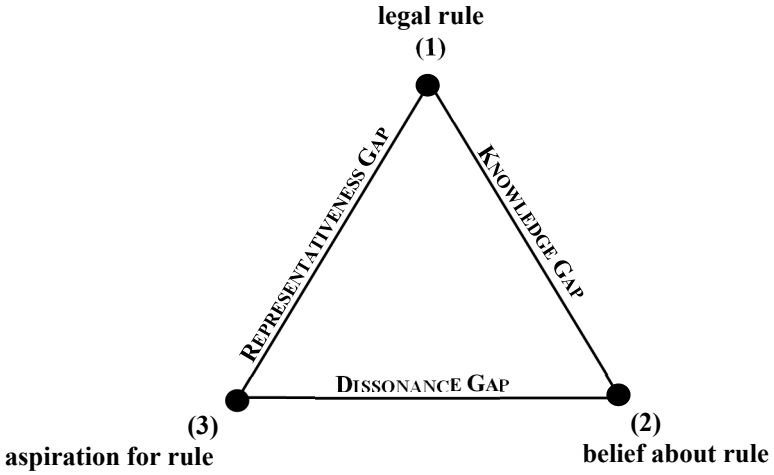
61. See Darley, Carlsmith & Robinson, *supra* note 53 at 169, 185–86 (limiting the discussion of implications to criminal law, and explaining that their research "concerns whether various elements of the criminal code are fulfilling their ex ante function—whether they provide the bright lines that set off criminal conduct from allowable conduct").

62. *See id.* at 167.

A. Theoretical Structure

To measure laypeople's legal knowledge, and to facilitate exploration for possible explanations of error, the study evaluated three basic data points for each participant for each law evaluated: (1) the recorded *legal rule* in the participant's state, (2) the participant's *subjective belief* about what the law in his or her state was, and (3) the participant's *normative aspiration* or preference about what the law in her state should be. These three points of measurement can be visualized as forming a theoretical triangle, with each of the legs of the triangle representing a measurable "gap" between recorded rules, laypeople's subjective beliefs, and laypeople's normative aspirations for the law.

Figure 1. Measurement of Formal Rules, Subjective Beliefs & Normative Aspirations



The gaps between these points create valuable measurements in their own right. The gap between (1) recorded legal rule and (2) subjective belief is, of course, a measure of legal knowledge. The gap between (2) subjective belief and (3) normative aspiration is a measure of the dissonance a participant experiences between what she believes the law to be, and what she believes it should be. And the gap between (3) normative aspiration and (1) recorded legal rule provides a measure of the extent to which the participant's aspirations for the law are represented in the law itself.

B. Methodology

The study reported in this paper required two basic forms of data collection: an empirical survey eliciting people's subjective beliefs about, and aspirations regarding, ten selected state laws, and objective legal research about the recorded legal rule for each of the selected topics in each of the selected states.

1. Survey Methodology

This section reports the methodology used to elicit laypeople's subjective beliefs and normative aspirations for ten selected state laws.

a. Participants

The survey data reported in this paper were collected from 869 participants in six U.S. states: California (174), Texas (173), Florida (215), Illinois (174), Montana (73), and South Dakota (60). Participants were recruited from the general population using Amazon's Mechanical Turk service ("MTurk"), which hosts surveys and handles participant compensation.[63] Social science research is increasingly undertaken using surveys administered using online survey techniques such as those facilitated by MTurk.[64] Quality reviews suggest that MTurk survey results at least meet, and in some cases exceed, traditional methods of recruiting convenience samples,[65] and the relative

63. For an overview of mTurk's use in legal scholarship, and a recommendation of best practices, see Adriana Z. Robertson & Albert H. Yoon, You Get What You Pay for: An Empirical Examination of the Use of MTurk in Legal Scholarship (Feb. 1, 2019) (unpublished manuscript) (on file with author). The survey data was collected between October 2015 and July 2016.

64. *See id.*; Adam Berinsky et al., *Evaluating Online Labor Markets for Experimental Research: Amazon.com's Mechanical Turk*, 20 POL. ANALYSIS 351, 351 (2012); Michael Buhrmester, Tracy Kwang & Samuel D. Gosling, *Amazon's Mechanical Turk: A New Source of Inexpensive, yet High-Quality Data?*, 6 PERSP. ON PSYCHOL. SCI. 3, 3 (2011).

65. *See* Berinsky et al., *supra* note 64, at 366; Buhrmester, Kwang & Gosling, *supra* note 64, at 5; *see also* Robertson & Yoon, *supra* note 63 (discussing best practices). *But see* Dan Kahan, *What's a "Valid" Sample? Problems with Mechanical Turk Study Samples, Part 1*, CULTURAL COGNITION PROJECT (July 8, 2013, 9:34 AM), http://www.culturalcognition.net/blog/2013/7/8/whats-a-valid-sample-problems-with-mechanical-turk-study-sam.html [https://perma.cc/JK99-NHTN] (noting that sample validity for any study depends on the "suitability [of] the inferences to be drawn about the dynamics in question," and concluding that Mechanical Turk samples are not valid for his own work, which focuses on the "study of how cultural or ideological commitments influence motivated cognition"). Because of Kahan's objections, I do not report findings on how participants' cultural commitments appear to relate to

cheapness of the survey method allows for larger numbers of people to be surveyed, which tends to improve statistical power. These features make this platform particularly well-suited to a multi-state study of first impression.

In this instance, surveys took an average of twelve minutes to complete, and participants were paid $2 upon completion, for a functional imputed wage of $10/hr.[66] This substantially exceeds the average rate of payment on mTurk,[67] but comports with best practices that suggest both that participants' attention quality increases with higher base pay,[68] and that paying workers poorly is exploitative.[69]

Demographics are reported in more detail in Appendix C. Generally, however, participants were slightly younger (at an average of 35.5, versus the national average of 37.4),[70] very slightly more female (52.9% versus 51.8% nationally),[71] and more Democrat than the general population.[72] Surveyed demographics were representative for Caucasians (76.4% in the study vs. 76.3% nationally) and Native Americans (1.5% in the study vs. 1.7% nationally), but slightly overrepresented Asians (9.3% in the study vs. 5.9% nationwide) and underrepresented Hispanics (9.0% in the study vs. 16.9% nationally) and African-Americans (6.9% in the study vs. 13.7%

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motivated cognition. That said, I do have the data to categorize each participant along the simplified Cultural Cognition scale, and to evaluate related cognitive dissonance levels; readers skeptical of Kahan's skepticism are welcome to review that data.

66. This exceeds the federal minimum wage of $7.25/hr, and the state minimum wages in all six surveyed states (California $9, Florida $8.46, Illinois $8.25, Montana $8.50, Texas and North Dakota (federal minimum)).

67. For a review of typical mTurk practices, see Robertson & Yoon, *supra* note 63, at 3–11; *see also* PAUL HITLIN, PEW RESEARCH CTR., RESEARCH IN THE CROWDSOURCING AGE: A CASE STUDY 20–30 (July 11, 2016), https://www.pewinternet.org/2016/07/11/turkers-in-this-canvassing-young-well-educated-and-frequent-users/ [https://perma.cc/RFN6-JE5C] (reporting that most MTurk workers earn less than $5 an hour).

68. *See* Robertson & Yoon, *supra* note 63, at 20–22.

69. *See id.*; *see also* Nancy Folbre, *The Unregulated Work of Mechanical Turk*, N.Y. TIMES (Mar. 18, 2003, 6:00 AM), https://economix.blogs.nytimes.com/2013/03/18/the-unregulated-work-of-mechanical-turk/ [https://perma.cc/5866-DAQA].

70. Participants ranged in age from 18 to 74. *See* U.S. CENSUS BUREAU, 2010–2014 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES 1, https://factfinder.census.gov/bkmk/table/1.0/en/ACS/14_5YR/DP05/0100000US [https://perma.cc/UPP8-SU7Z] (last visited Mar. 5, 2019) (reporting a national average age of 37.4).

71. *See id.* Four participants did not identify as male or female. *Id.*

72. Forty-two percent of participants self-identified as Democrat; 15.4% identified as Republican; and 36.5% identified as Independent. This was representative of Independents, but tended to overrepresent Democrats and underrepresent Republicans: in March of 2016, when the study was run, a Gallup poll found that 32% (-10%) of Americans identified as Democrats; 26% (+11%) of Americans identified as Republicans, and 38% of Americans identified as independents (-1%). *See Party Affiliation*, GALLUP (2018), https://news.gallup.com/poll/15370/party-affiliation.aspx [https://perma.cc/3TF4-UGJ5].

nationally).[73] To facilitate future research, in addition to these general demographics, participants were also asked a series of more detailed questions about demographic,[74] political,[75] and cultural[76] characteristics. Although these topics are not the focus of this paper, all of this information remains available in raw data.

b. Questionnaire

Participants were presented with simple statements about legal topics, presented in randomized order. There were two stages of questions: the "belief" stage and the "aspiration" stage. The order of the stages was also

73. Participants could choose more than one racial category. Please see Appendix C for additional demographic information broken down by state. *See* U.S. CENSUS BUREAU, *supra* note 70.

74. These included how long they had lived in their state, whether they were born in the state they live in now, how many states they had lived in during their lifetime, how many foreign countries they had lived in in their lifetime, and whether they considered their community to be urban, suburban, or rural.

75. These included questions on participants' political engagement ("How politically engaged do you consider yourself to be?") and political activity ("How politically active do you consider yourself to be?"), subjective state and federal representation ("All things considered, how well do you think politicians in the federal government/state government represent your interests and preferences?"), in addition to the typical political orientation ("What is your political orientation?" Options: very conservative, moderate, liberal, very liberal) and political affiliation ("Based on your political views, do you consider yourself to be:" Options: Democrat, Republican, Independent, Other).

76. Participants were given the abbreviated "Cultural Cognition" scale for evaluating their cultural and political beliefs in more detail. To measure cultural values, the Cultural Cognition Project at Yale uses two spectra that map many of the political debates in the modern United States: hierarchy vs. egalitarianism and individualism vs. communitarianism. *See* Dan M. Kahan, *Cultural Cognition as a Conception of the Cultural Theory of Risk* (Harvard Law Sch. Program on Risk Regulation Research, Paper No. 08-20, Yale Law Sch., Pub. Law Working Paper No. 222, 2011), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1123807&rec=1&srcabs=1017189 [https://perma.cc/NYB9-49CK] (contextualizing cultural cognition within various approaches to cultural theory of risk, which was pioneered by Mary Douglas and Aaron Wildavsky); *see also* MARY DOUGLAS & AARON WILDAVSKY, RISK AND CULTURE 192 (1982). This spectrum is meant to indicate attitudes toward social order and authority. Under this approach, people who tend to agree with statements like "Society as a whole has become too soft and feminine," and to disagree with statements like "We need to dramatically reduce inequalities between the rich and the poor, whites and people of color, and men and women," will tend to be categorized as hierarchical; people with the opposite views would tend to be categorized as egalitarian. *See* Dan M. Kahan et al., *The Tragedy of the Risk-Perception Commons: Culture Conflict, Rationality Conflict, and Climate Change* 18–19 (Temple Univ. Legal Studies Research Paper No. 2011-26, 2012), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1871503 [https://perma.cc/59RH-SQ84].

randomized, so that about half of the participants saw the "belief" stage first, and about half of the participants saw the "aspiration" stage first.[77]

In the "belief" stage, participants were asked for each question what they believe the law in their state "is."[78] They were given a statement—such as "*People are legally required to report to the police if they know someone has committed a felony*"—and asked whether it was "true" or "false." They were then prompted with the answer they had given for each topic, and asked how confident they were in their answer.[79]

In the "aspiration" stage, participants were asked what they believe the law in their state "should be," again about each topic.[80] For misprision of a felony, for example, they were presented with this statement: "*People should be legally required to report to the police if they know someone has committed a felony.*" Participants were then asked to indicate their level of agreement with the statement along a Likert scale, ranging from (1) "strongly agree," (2) "slightly disagree," (3) "neither agree nor disagree," (4) "slightly agree," to (5) "strongly disagree." Participants were then asked to indicate how important each issue was to them.[81] All belief stage and aspiration stage questions are reported in Appendix A.

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77. There was a significant stage order effect on dissonance: Participants who were presented with the aspiration stage first were more likely to answer the belief stage questions in a way that conflicted with their aspirations (dissonance scores: M(belief first) = 3.91, SD = 2.02; M(aspiration first = 4.48, SD = 2.05; difference = -.568, t = -3.65, p < .001***)). What does this suggest for causal inference? Perhaps that people primed with thinking about the law like to believe that the law is good, whereas people primed to think about their values are more likely to see that the law does not necessarily reflect them? This is merely a speculation, however; to really determine causal direction(s), a study should include randomized and controlled interventions.

78. Participants were given the following directions: "For each of the following questions, please indicate whether the statement is true in [your state]" (emphasis in original).

79. For example, a participant who had answered "true" on the misprision of a felony question was shown this prompt, after answering all the basic knowledge questions: *"People are legally required to report to the police if they know someone has committed a felony." You said this statement is True. How confident are you in your answer?* Participants were presented with a Likert scale from 1 ("not at all confident") to 5 ("extremely confident").

80. Participants were given the following directions: "For each of the following questions, please indicate what you believe the law in [your state] should be." (emphasis in original).

81. To rate importance, participants were presented with a list of 6 of the 12 topics at a time. The prompt read, "For each of the following, please indicate how important the issue is to you." They were then asked to indicate importance on a Likert scale from 1 ("not at all important") to 5 ("extremely important").

2. Objective Legal Research

In addition to the survey described above, to be able to evaluate participants' knowledge regarding their own state rules, it was necessary to construct a matrix of "objective" legal rules in each state. For this portion of the research, I first coded the answers doing the research myself. To verify, and to ensure that the questions were worded clearly, I then requested separate opinions from the University of Illinois Law Library and the Harvard Law Library research librarians on the "correct" answer for each question in each state.[82] Where there was substantive disagreement on an answer, the answer was coded as ambiguous. This was true for two questions initially included in the sample: "medical marijuana" ("*Doctors are allowed to legally prescribe marijuana for medical reasons*") and "takings for private use" ("*The state may legally take a person's property and give it to a business, so long as the business use will benefit the public, and so long as the original owner is paid just compensation*"). To avoid skewing the accuracy results, these questions were not reported here, although answers remain available in raw data, and may be particularly useful for a follow-up analysis of ambiguous legal rules. A few answers required a judgment call, which could in some cases could arguably have led either to overinclusivity or underinclusivity on accuracy measures.[83] Generally, however, this portion of the methodology simply required basic legal research of the sort that attorneys are called upon to perform all of the time. The resulting matrix of "correct" answers is attached in Appendix B, which exhibits both the correct "true/false" answer for each question, and the percentage of participants who got the question correct.

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82. Special thanks to Meg Kribble and Lauren Shryne at the Harvard Law School Library and to Michelle Hook-Dewey, Hannah Reed Brennan, Mandy May Lee, and Stacia Stein at the University of Illinois College of Law Library for their research.

83. For example, like six other states, Florida has no state income tax on personal income. Thus, it is widely reported in the media as having "no" income tax. *See* Kay Bell, *7 States that Don't Have a State Income Tax*, ABC NEWS (Jan. 14, 2014), http://abcnews.go.com/Business/states-income-tax-us/story?id=21490926 [https://perma.cc/FP32-EL9F]; Dan Dzombak, *These States Have No Income Tax*, USA TODAY (Apr. 26, 2014), http://www.usatoday.com/story/money/personalfinance/2014/04/26/these-states-have-no-income-tax/8116161/ [https://perma.cc/S2JF-ADAK]. The statement "The state has a state income tax" is thus most straightforwardly categorized as "false" in Florida, which is how it was coded in the survey, and how each coder treated the answer. That said, along with other business taxes like a business sales-and-use tax, a discretionary sales surtax, and a reemployment tax, Florida does also have a *corporate* income tax that applies against profits earned by Florida businesses. *See* FLA. STAT. § 220.11 (2018). If a participant read the statement "This state has a state income tax" to include corporate income tax, and indicated that the statement was true, the resulting answer would have been coded as inaccurate.

C. Results

This section reports on the results, and compares the answers on the survey to the objective legal rules. In brief, the study found that legal knowledge was imperfect for every surveyed topic, and for two rules surveyed—reporting felonies and medical malpractice caps—legal knowledge was so poor that there was no statistically significant relationship between the actual rule in a state and people's belief about what the rule is. In addition, when participants got the law wrong, they tended to do so in a predictable direction: they tended to believe that the law already was whatever they believed it should be. This phenomenon was not restricted to criminal law or to laws that participants ranked as particularly important.

1. Measuring Legal Knowledge: Legal Rules vs. Beliefs

A measure of legal knowledge was constructed by comparing (1) the recorded law in a participant's state to (2) the participant's subjective belief about that law. Where a participant's reported belief matched the recorded law, the participant was coded as accurately knowing the law; where the two differed, the participant was coded as having identified the law inaccurately.

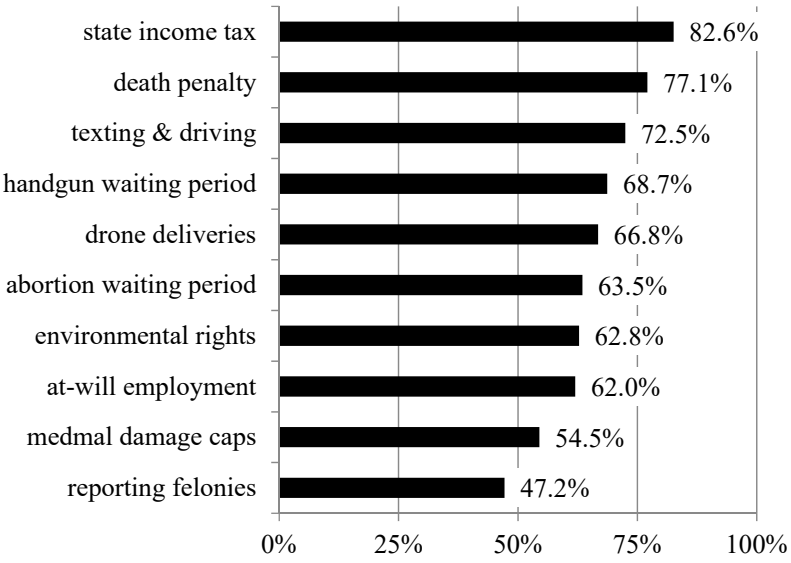
How well do people know their state laws? A simple answer—aggregating broadly across all ten topics, six states, and 869 participants—is that participants answered 66% of questions accurately.

Of course that simple answer elides over significant nuance, including the fact that accuracy varied significantly by topic.[84] For the least well-known law in this sample—"reporting felonies," or whether "[p]eople are legally required to report to the police if they know that someone has committed a felony"—only 47% of respondents accurately identified their state law. This was no better than they would have been expected to do by pure chance, since these were true/false questions! In contrast, participants were far more likely to know the best-known law in this sample—"income tax," or whether "[t]he state has a state income tax": 83% of respondents had accurate beliefs in this area.

A fuller display of variation across states and topics is presented in Appendix B. As a simplified presentation, however, consider the range of accuracy represented on this chart:

84. Standard Deviation = 13.11.

Figure 2. Knowledge of State Laws
% of respondents accurately identifying their state's rule

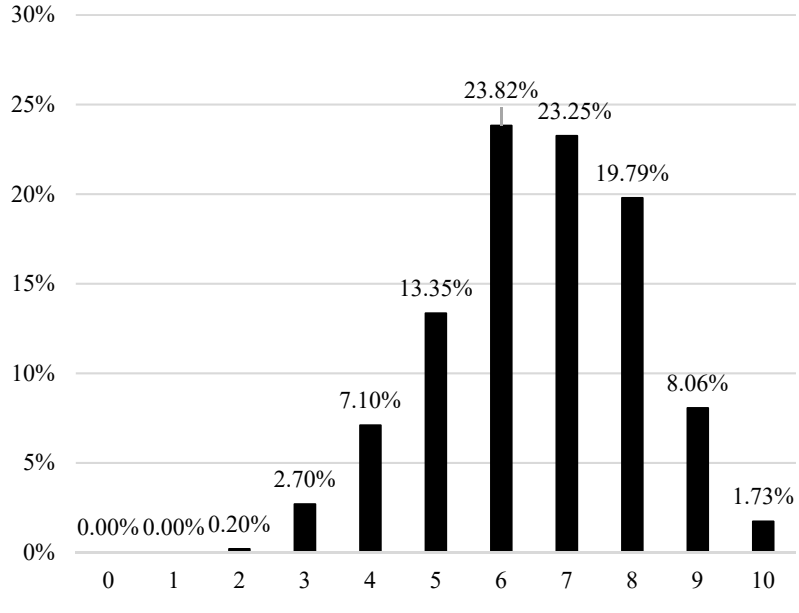


Notably, for two rules—reporting felonies and medical malpractice caps—legal knowledge was so poor that there was no statistically significant relationship between the actual rule in a state and people's belief about what the rule is. For those rules, merely knowing what people in a state believe those rules to be would not allow you to predict that state's laws. For the rest of the rules, there was a significant relationship between a state's actual law and people's beliefs about it.[85]

Accuracy varied not only by topic, but also by participant. Notably, only 1.6% of participants exhibited perfect knowledge of their state laws. The average participant answered 6.6 questions correctly; the median participant got seven questions correct. About two-thirds of participants answered six, seven, or eight questions correctly. Fewer than 2% of participants answered all ten questions correctly, and no one answered fewer than two correctly.

85. *See* Appendix D, *infra* p. 282.

Figure 3. Number of Questions Participants Answered Correctly (Out of Ten)



a. What Predicts Accurate Knowledge?

The results above indicate that, despite some systematic errors, for many legal topics, participants tended to believe that their state laws are what they actually are. This suggests that for many rules, legal rules are at least partially predictive of people's beliefs about those laws. As a result, a presumption of legal knowledge would be descriptively accurate for most people for most rules surveyed.

Yet it would be a mistake to overstate the strength of this effect, and significant variance remains unexplained. On average, across surveyed topics, 34% of participants got their state law wrong: one in three, on a test that would have had one in two correct merely from chance. Participants did perform significantly better than chance on the majority of topics, but their performance is a long way from a finding of perfect convergence between formal legal rules and legal beliefs. Even for the best-known topic, for which there was the greatest convergence—income tax—one out of every six participants (17.3%) believes their state law to be whatever it is not. This suggests that using formal legal rules as a proxy for legal beliefs is likely to predict many beliefs much of the time, but that predictions based on this proxy will also run astray for a large number of people. Furthermore, the

proportion of people who know (and thus may be accurately presumed to have legal knowledge) of a law varies substantially according to the specific law in question.

This leaves significant room for exploring the circumstances under which people's beliefs diverge from formal legal rules, for what it is about individual legal topics that makes knowledge levels vary from one another, and what might explain variation across participants. Subsequent sections of this paper look to other relationships (like the relationship between aspiration and belief) that could explain some of the circumstances under which people are more likely to hold mistaken beliefs about the law. The rest of this sub-part focuses on the question of inter-topic and inter-subject variance, and evaluates three possible factors that might help to explain some variance as between legal topics and among subjects: demographics, issue importance, and confidence.

i) Demographics and Accuracy

Do people with different identity characteristics exhibit different levels of knowledge about their state laws? There was no detectible relationship between accuracy and income, political affiliation, political orientation, race, or gender. Greater age was, however, generally predictive of higher accuracy,[86] as were higher levels of education.[87] That said, there were a few exceptions that may be worth noting: being more liberal was associated with greater knowledge of abortion waiting periods;[88] being male was associated with higher accuracy on handgun waiting periods;[89] identifying as Hispanic or Native American was associated with lower accuracy on texting and driving;[90] and identifying as Asian was associated with lower accuracy on death penalty.[91] Furthermore, participants from different states had significantly different levels of knowledge about their own state laws.[92] Montanans, on average, were only correct in their beliefs about state law 59%

86. b = 0.0016, t = 3.34, p = 0.001***
87. b = 0.00836, t = 2.02, p = 0.043*
88. Liberal (p = 0.020*).
89. Male (p = 0.050*).
90. Hispanic (p = .042*), Native American (p = .003***).
91. Asian (p = 0.001***).
92. *See* Appendix B, *infra* p. 280. For a one-way analysis of variation ("ANOVA") of accuracy by state testing whether people in different states had significantly different chances of correctly identifying their state's laws, see Appendix D, *infra* p. 282. Note that accuracy on all topics but one—medical malpractice damage caps—varied significantly by state.

of the time; the average Californian, by contrast, correctly identified a state law 71% of the time.[93]

ii) Importance and Accuracy

If people tend to know more about some laws than others, one optimistic account would hold that they might choose to inform themselves about topics that they consider particularly important. Participants in the study were asked not only what they believed the law in their state to be, but also how important the issue was to the participant. Different participants attached different subjective levels of importance to each of the topics surveyed.[94] These responses can be compared to the participants' knowledge of the formal legal rule.

So: *did* people tend to know more about legal topics that they indicated were more important? If so, there is no evidence of such a phenomenon here: this study found no detectable relationship between importance and accuracy. Or in other words—perhaps depressingly—there was no detected relationship between how important an individual participant ranked a topic, and how likely she was to know the law on that topic.[95] Only two of the ten topics showed even a marginally significant relationship between accuracy and importance: people who reported a high level of importance attached to at-will employment were marginally *more* likely to know the default rule in their state, while people who reported a high level of importance to texting and driving were marginally *less* likely to know the rule in their state.[96] That said, these significance levels are so low that the results would be attributable to chance approximately one out of ten times.

These results suggest that, whatever else is driving people's knowledge about the law, there is no evidence that it is being significantly driven by the level of importance that they themselves attach to a topic. Where there are differences in how much people know about different laws under which they live, those differences do not appear to be attributable to people's subjective accounts of issue importance. This leaves significant room for other accounts of belief—including, as will be discussed subsequently, the possibility that people's normative aspiration for the law predicts what they believe the law to be.

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93. See Appendix B, *infra* p. 280, for other accuracy percentages.

94. *See* Appendix E, *infra* p. 283.

95. A t-test comparing the average importance ascribed to a topic by participants who accurately and inaccurately identified their state's law on that issue yielded no statistically significant results at the $p < 0.05$ level of significance. For two topics—at-will employment ($p = 0.091$, t-score = 1.69) and texting and driving ($p = 0.091$, t-score = -1.69)—there was marginal significance, though these went in opposite directions.

96. *See supra* note 81.

iii) Confidence and Accuracy

Another possible predictor of accuracy might be people's levels of confidence in their own knowledge. From a practical and normative perspective, we might hope to see a strong relationship between confidence and increased accuracy about the law, as such a relationship might help individuals as they decide when to invest in additional information-gathering about the law. We might be particularly worried, in fact, if we found that people tended to be confident and wrong, as misplaced confidence might interfere with people's ability to seek out and update their inaccurate beliefs.

At the same time that we might hope to see confidence as a predictor of higher accuracy, what empirical work exists on this topic provides reason for initial pessimism. While the author is aware of no studies evaluating the relationship between people's confidence levels and their legal knowledge, there has been substantial work done on the relationship between confidence and accuracy in eyewitness testimony. And that work has famously found little relationship between how confident an eyewitness is in her facts, and how accurate her testimony is likely to be.[97] If that same phenomenon can be generalized to confidence and legal knowledge, we should expect to see only insignificant relationships here.

Happily, this is not the case. In this study, participants were asked to rank their level of confidence in each of their answers. When those confidence levels are compared to accuracy levels across participants, it reveals a significant relationship between confidence and accuracy in seven of the ten tested contexts: for at-will employment, death penalty, income tax, texting and driving, handgun waiting period, medical malpractice damage caps, and abortion waiting periods. People who were more confident in their knowledge about these rules were also more likely to actually know their state law. [98]

This suggests that, unlike in eyewitness and similar contexts, people may tend to be more confident in their beliefs about the law when they truly have accurate legal knowledge. That said, this trend did not hold true for all topics. Strikingly, for one rule—reporting felonies—high confidence actually significantly predicted *in*accuracy. For the other two rules, confident

97. *See, e.g.*, Robert K. Bothwell, Kenneth A. Deffenbacher & John C. Brigham, *Correlation of Eyewitness Accuracy and Confidence: Optimality Hypothesis Revisited*, 72 J. APPLIED PSYCHOL. 691, 693–694 (1987) (finding no reliable relationship between eyewitness confidence and accuracy between subjects); Vicki L. Smith, Saul M. Kassin & Phoebe C. Ellsworth, *Eyewitness Accuracy and Confidence: Within-Versus Between-Subject Correlations*, 74 J. APPLIED PSYCHOL. 356, 358 (1989) (finding no reliable relationship within subjects either).

98. *See* Appendix F, *infra* p. 284.

participants were more accurate, but not at levels that were statistically significant.

What should we conclude from this? This finding shows that people were generally likely to report lower levels of confidence about topics where they knew less. It also suggests that, for many legal topics, individual people who are more confident in their knowledge are indeed more likely to know the law. That said, the fact that the direction of this effect switches for at least some laws—represented here by the law of misprision of a felony—is also important to note. It serves as a warning against overgeneralizing the relationship between confidence and accuracy, and suggests that at least some legal topics may engender a kind of intractable and overconfident ignorance, where people with confidently false beliefs about the law are even less likely to seek out information that might update their beliefs.

2. Measuring Legitimacy and/or Dissonance: Beliefs vs. Aspirations

Another way of constructing the data is to compare (1) the participant's subjective belief about each law to (2) the participant's reported aspiration for what that law "should be." Any difference between these two points represents a gap between what a person thinks the law is and what she believes it ought to be. The measure is relevant both to understanding the amount of cognitive dissonance a person experiences, and potentially to the level of legitimacy a person attaches to the law: The smaller the gap, the smaller the dissonance, and the more legitimate the law (subjectively) may appear to be.

To construct this measure, beliefs were coded as "congruent" with aspirations if participants indicated that they strongly agreed, agreed, or neither agreed nor disagreed that the law should be whatever the participant believed it to be. Beliefs were coded as "dissonant" with aspirations if participants indicated that they strongly disagreed or disagreed that the law should be whatever the participant believed it to be.

Across all topics surveyed, participants indicated that they believed that their state's rule was congruent with their aspiration 67% of the time. Again, there was variance by topic, but this time, it did not vary quite as much.[99] For no topic surveyed did most participants believe that they lived in a state whose rule was dissonant with their aspirations.[100] This finding is particularly

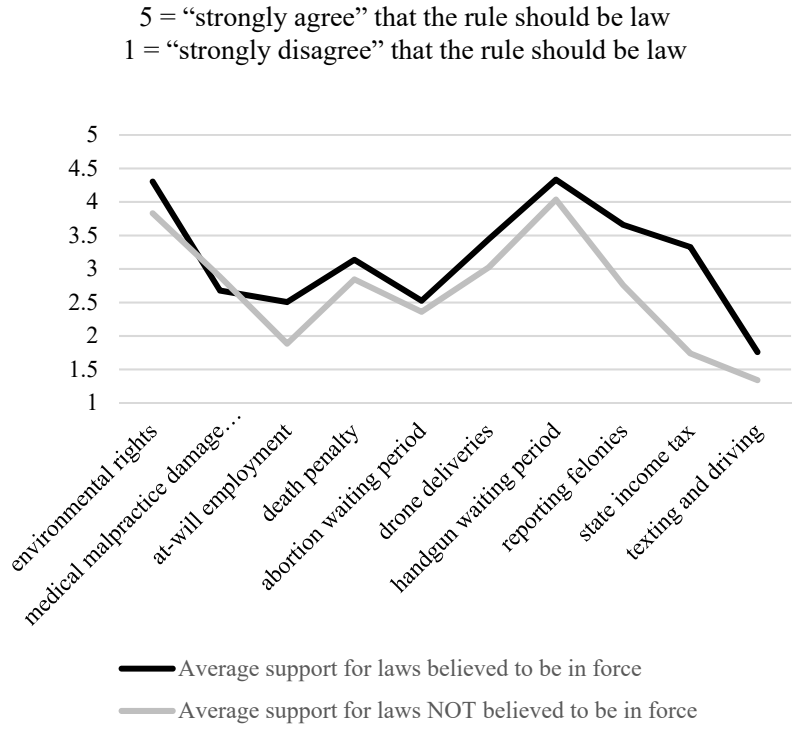
99. Standard Deviation = 10.70.

100. For a measure of congruence between belief and aspiration—of the percentage of people who believe they live in a state whose laws are consistent with their preferences—see Appendix H, *infra* p. 286.

striking in the context of at-will employment, where—as the following section reports—61% of participants do in fact live in states whose laws conflict with their aspirations.

Strikingly, participants who believed that a rule *was* the law were generally significantly more likely to say that the rule "should" be the law. Conversely, participants who believe that a rule was *not* the law were generally significantly *less* likely to support that legal rule.

Figure 4. Average Support for Laws Depending upon Whether They Are Believed To Be in Force



Thus, reported support for a rule varied depending upon whether participants believed the law to be in force or not. This phenomenon held true for eight of the ten topics surveyed: environmental rights, at-will employment, death penalty, drone deliveries, handgun waiting period,

reporting felonies, state income tax, and texting and driving.[101] For most of these the results were highly statistically significant.[102]

There were two exceptions: for abortion waiting periods and for medical malpractice damage caps. The abortion waiting period results go in the same direction as the other topics: people who believed that their state has an abortion waiting period were technically more likely to support an abortion waiting period than people who believe that their state did not have a waiting period, but the difference is not statistically significant.[103] Interestingly, medical malpractice damage caps operate differently. For these, there is a significant difference in the aspirations of people who believe they live in a state with a cap and those who do not—but in this instance, people who believe that they live in a state with a damage cap are *less* likely to support the cap than people who believe they live in a state without a cap.

This data suggests that, for most topics surveyed, participants tended to believe that the law already is whatever they think it should be, and vice-versa. Yet there is at least some subcategory of topics where this general phenomenon does not hold true—a subcategory that includes at least the issue of medical malpractice damage caps—and in fact where the effect works in the other direction.

a. Demographics, Aspiration, and Dissonance

Although the data above suggest a general trend, such that participants tended to believe that their aspirations for the law are already enshrined in the law, perhaps it should not be surprising that the substance of participants' aspirations for the law varied, often in ways that were predictable by identity characteristics. So for example, for eight of ten topics, people who self-identified as Democrat tended to identify different aspirations for the law than people who self-identified as Republican. Consistently with national norms, Republicans were more likely to favor at-will employment defaults, laws requiring reporting of felonies, the death penalty, medical malpractice damage caps, and abortion waiting periods; Democrats were more likely to favor handgun waiting periods, state income tax, and the constitutional right to a clean environment. For two of the ten topics, in contrast—texting and driving and drone regulation—political affiliation was not predictive of affiliation at all.[104]

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101. It also held true for the two topics surveyed for which there was no clear true/false answer in most states: for takings for private use (t-score = 6.30, $p < 0.001$***) and medical marijuana (t-score = 3.34, $p = 0.001$***).

102. *See* Appendix I, *infra* p. 287.

103. $p = 0.124$.

104. *See* Appendix E, *infra* p. 283.

But while the substance of aspirations varied (predictably) by political affiliation, for nine out of ten topics, the study found no evidence that Republicans or Democrats are more or less likely to experience cognitive dissonance between what they believe their laws to be and what they aspire to have them be.[105] Interestingly, for state income tax and abortion waiting period—two of the most politicized topics, where Democrats and Republicans tended to have widely divergent aspirations—they actually also end up with significantly different beliefs about the law.[106]

Otherwise, demographic comparisons show a smattering of differential dissonance across varying topics, including for race,[107] gender,[108] age,[109] and income.[110] Education was not a predictor of dissonance for any topic surveyed.

b. Predicting Beliefs: Do Formal Legal Rules or Aspirations Better Predict What People Believe the Law To Be?

Are people's beliefs about the law better explained by reference to their aspirations for what the law should be, or by what the law in their state actually is? For the nine topics that varied by state,[111] it is possible to evaluate this question both by comparing the relative predictiveness of actual rule and aspiration on people's beliefs, and by looking at the absolute effect size.[112]

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105. The exception was the constitutional right to a clean environment ($p < .001$***) (test 9).

106. Sixty-two percent of Democrats and 51.5% of Republicans believed themselves to live in a state with a state income tax ($p = 0.034$*); 38.7% of Democrats and 29.1% of Republicans believed themselves to live in a state with an abortion waiting period ($p = 0.048$*). Note that the fact that participants' aspirations were in fact significantly represented in their state laws regarding income tax ($p < 0.001$***), as reported in the Representativeness discussion, may well be explanatory. For abortion waiting periods the situation seems more complex; note that this was one of the only topics for which there was no significant relationship detected between aspiration and belief ($p = 0.124$), and that there is similarly no significant relationship detected between people's aspirations about abortion waiting periods and the actual rules under which they live ($p = 0.988$).

107. Race was significant for environment, texting, eminent domain, and marijuana.

108. Gender was significant for abortion waiting periods and drones.

109. Age was significant for at-will employment, texting and driving, and medical malpractice damage caps.

110. Income was significant for drone regulation.

111. Note that drone regulation is federal, so it did not vary by state. The correlation between belief and aspiration was $r = -0.161$ (a small effect), $p < 0.001$***.

112. In describing effect sizes for these correlation coefficients, I follow Cohen, who treats $r = 0.10$ as a small effect, $r = 0.30$ as a medium effect, and $r = 0.50$ as a large effect. *See* Jacob Cohen, *A Power Primer*, 112 PSYCHOL. BULL. 155, 156 (1992).

Table 1: Whether Aspiration or the Actual Legal Rule Better Predicts Participants' Beliefs about the Law

	Correlation Rule/Belief (effect size)	**Correlation Belief/Asp.**[113] **(effect size)**	**Which Better Predicts Belief?**
at-will employment	r = 0.14*** (small)	r = -0.22*** (small)	aspiration
reporting felonies	not significant	r = -0.32*** (medium)	aspiration
death penalty	r = 0.39*** (medium)	r = -0.09* (small)	legal rule
environmental rights	r = 0.07* (small)	r = -0.19*** (small)	aspiration
income tax	r = 0.67*** (large)	r = -0.54*** (large)	legal rule
texting and driving	r = 0.26*** (small/medium)	r = -0.18*** (small)	legal rule
handgun waiting period	r = 0.30*** (medium)	r = -0.12*** (small)	legal rule
medmal damage caps	not significant	r = 0.08* (small)	aspiration
abortion waiting period	r = 0.30*** (medium)	not significant	legal rule

Whether aspiration or formal legal rule is more predictive of people's legal beliefs varies by topic. For five topics—death penalty, income tax, texting and driving, handgun waiting period, and abortion waiting period—the formal legal rule is more predictive of people's beliefs about the law than are aspirations. And strikingly, for four topics—at-will employment, reporting felonies, the constitutional right to a clean environment, and medical malpractice damage caps—the opposite is true: it is possible to predict

113. Negative correlations are expected here because higher aspirations are in favor of the rule.

people's beliefs about the law more accurately by knowing what they believe the law *should* be than by knowing the actual rule under which they live.[114]

Beyond the relative strength of the effects, it is also worth noting their sizes. Consider, for instance, that while actual rules are more predictive of people's beliefs about state income tax than their aspirations, aspirations also generate a large predictive effect.[115] Conversely, while aspiration predicts people's beliefs about at-will employment better than the actual rule, both effects are small. And the effect for medical malpractice caps on aspiration is very small indeed.[116] Particularly where both effects are either small or insignificant, then, it is worth recognizing that there is significant remaining variance in people's legal beliefs that cannot be explained either by reference to formal legal rule, or by reference to people's aspirations about the law. Nevertheless, these findings explain a part of the variance in people's beliefs about the law, and illustrate how normative aspirations as well as legal rules can have important roles to play in predicting people's beliefs about the law.

3. Measuring Legal Representativeness: Legal Rules vs. Aspirations

Another way of constructing the data is to compare (2) participants' normative aspirations for what they reported the state law "should" be, with (3) the objective measure of what the state law is. Any difference between these two points reveals a gap between what a person thinks the law should be, and what it in fact is. This measure is particularly relevant in thinking about how well-represented an individual person's normative preferences are by the laws under which she lives.

To construct this measure, the state law was coded as congruent with a participant's aspiration if the participant indicated that she "strongly agreed," "agreed," or "neither agreed nor disagreed" that the law should be whatever it in fact was. The state law was coded as in conflict with a participant's aspiration if the participant indicated that she "agreed" or "strongly agreed" that the law should be what it was not.

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114. Note, however, that for medical malpractice damage caps, this predictiveness runs in the opposite direction, because participants tended to believe that their state law *does not* represent their preferences. Somewhat bizarrely, this means it is possible to predict participants' beliefs about medical malpractice caps better by knowing their aspiration (and then assuming their belief is the opposite) than by knowing the actual rule in their jurisdiction. Note, however, that this effect is very small.

115. ($r = -0.54$).

116. ($r = -0.08$).

How well do state laws represent the aspirations of state populations? If you chose a random participant and topic, there was about a 59% chance that the participant would live in a state whose rule did not conflict with her aspirations.[117] That said, there was again significant variation, particularly by topic. Of all the topics evaluated, participants were least well-represented by their state laws in regard to at-will employment rules: only 39% of participants lived in states whose employment contract default rules reflect their aspirations. In contrast, over three out of every four participants—77%—live in states whose state income tax policy is congruent with their aspirations.[118]

Interestingly, although there was variance across topic, for most issues, the results did *not* show that participants in different states had significantly different aspirations. There were two significant exceptions, however: for rules on income tax and on handgun waiting periods, respondents reported significantly different aspirations about what the law should be.[119] In particular, participants who thought that there should not be an income tax were significantly more likely to live in states without an income tax, and participants who thought there should be no waiting period for purchasing handguns were significantly more likely to live in a state without a waiting period. Similarly, although only with marginal significance, participants tended to live in states that reflect their aspirations about the death penalty. Given the structure of this study, it is not possible to reliably back out the causal direction of this effect: It may be that people tend to move to states that reflect their preferences about taxes and guns (and possibly the death penalty), or it may be that people are more likely to conform their normative commitments to state laws about taxes, guns, and death. Further study in this area would be particularly fruitful.

a. Comparing Representativeness and Belief: When People Get the Law Wrong, Do They Tend To Be Optimistic or Pessimistic?

With a measure of representation provided by the relationship between actual rule and aspiration, and a separate measure of belief, it becomes possible to evaluate how good people are at determining whether their aspirations are reflected in the law. Further, it is possible to determine

117. Standard Deviation = 11.66.

118. *See* Appendix K, *infra* p. 289. Aspirations were coded as "not conflicting" with state law if, on the aspiration stage of the survey, participants indicated that they "strongly agree[d]," "slightly agree[d]," or "neither agree[d] nor disagree[d]" with state law. Participants in states *with* a state income tax were thus coded as having conflicting aspirations if they indicated that they "slightly disagree[d]" or "strongly disagree[d]" with the aspiration stage statement "The state should have a state income tax."

119. $p < 0.001$.

whether, when people are wrong, they tend to be pessimistic or optimistic: whether they assume they are better-represented or worse-represented than they actually are.

There are four possibilities here, created by the four ways that actual and perceived representation might come together. First, participants might have their aspirations represented in the actual rules under which they live, and may recognize that representation by accurately believing that the rule is what it is. Call this "recognized representation." Conversely, participants might exhibit "recognized misrepresentation," where their aspiration is not represented in the actual rule, and they know it.

Alternatively, however, there could be mismatches between participants' *beliefs* about whether their aspirations are reflected in the law, and whether those aspirations actually *are* reflected. There are two types of mismatch: what we might call "phantom representation," where a person optimistically (but wrongly) believes that her aspiration *is* reflected in the rule; and "phantom misrepresentation," where a person pessimistically (but wrongly) believes that her aspiration is *not* reflected in the rule.

Figure 5. Relationships Between Perceived and Actual Representation

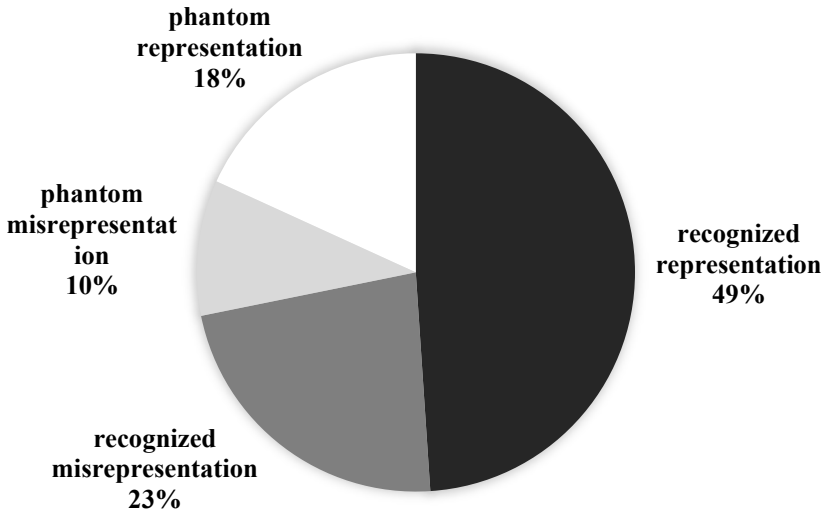
		Actual Representation *Is the participant's aspiration in fact represented in the actual rule?*	
		yes	**no**
Perceived Representation *Does the participant subjectively believe her aspiration is reflected in the rule?*	**yes**	recognized representation	phantom representation
	no	phantom misrepresentation	recognized misrepresentation

The two categories where people recognize whether their preferences are represented or not—of recognized representation and recognized misrepresentation—make up the group of people with legal knowledge. As the results of this study have illustrated, however, people do not always know the law. The categories of phantom misrepresentation and phantom representation are constituted of these persons: people who have gotten the law wrong.

If mistakes in legal knowledge are unrelated to people's normative commitments, we should expect to see people getting the law wrong in both directions about equally. If that is the case, we should see about half of mistaken participants thinking that the law reflects their beliefs, and half thinking it does not: or half of people who get the law wrong experiencing phantom representation, and about half phantom misrepresentation.

This was not the case. In fact, participants were almost twice as likely to mistake the law optimistically—mistakenly believing that it represented their preferences—than pessimistically. Or in other words, when participants got the law wrong, they were significantly more likely to (wrongly) believe that it reflected their normative commitments, than that it did not.

Figure 6. Percentage of Respondents' Answers Exhibiting Recognized and Phantom Representation and Misrepresentation

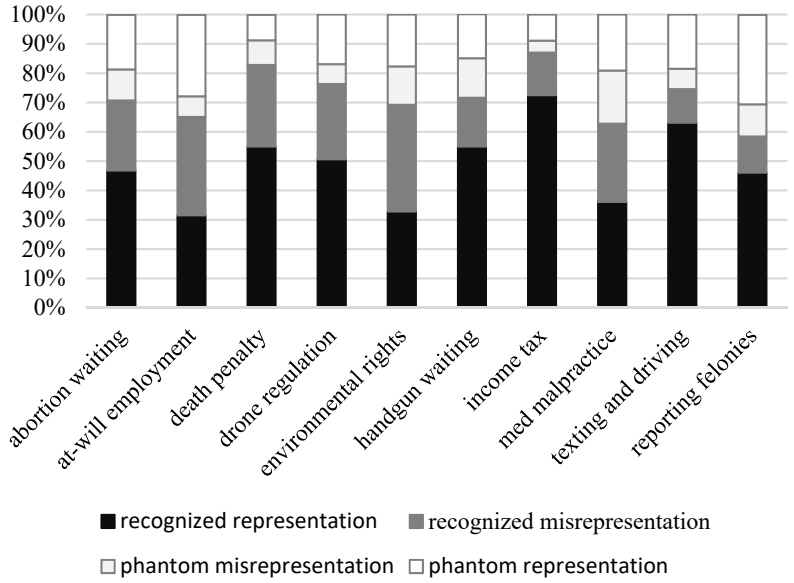


This phenomenon was general enough that averaging across topics and states, participants' answers were optimistically wrong—exhibited phantom representation—in approximately two out of every eleven cases (18.2%). In contrast, participants' answers were pessimistically wrong—exhibiting phantom *mis*representation—in only one out of every ten cases (10%). Or in other words, when people mistook the law, they were wrong optimistically

about two-thirds of the time.[120] One result of this phenomenon was that, for many topics, participants were more likely to believe that the law comported with their preferences than to actually live under a law that comported with their preferences.[121]

More people who got the law wrong *optimistically* than *pessimistically* for every individual legal topic surveyed.

Figure 7. Percentage of Respondents Indicating Phantom or Recognized Representation and Misrepresentation



120. Overall, people got the true/false question wrong for their state 28.2% of the time. Of these mistakes, 35.7% were phantom misrepresentation (where the participant wrongly believed that the law conflicted with her normative commitments) and 64.3% were phantom representation (where the participant wrongly believed that the law comported with her normative commitments).

121. *See* Appendix K, *infra* p. 289. One way to think of this across topics is that the category of represented persons (recognized representation (49%) + phantom misrepresentation (10%) = 59%) is smaller than the category of persons who believe themselves to be represented (recognized representation (49%) + phantom representation (18%) = 67%). The same phenomenon held true for the majority of individual topics: for seven of ten—reporting felonies, at-will employment, environmental rights, abortion waiting periods, drone deliveries, texting and driving, and state income tax—the data suggest that people tend to optimistically believe that their laws represent them better than their aspirations are actually represented. For no topic surveyed was the opposite true; for no topic did a majority of people pessimistically believe themselves to be less well-represented than they are. For three topics—medical malpractice damage caps, handgun waiting periods, and death penalty—there was no statistically significant result, or at least not when the data was aggregated across states.

For each individual topic surveyed, the group of people who experienced phantom representation was larger than the group of people who experienced phantom misrepresentation. Otherwise, however, the breakdown varied significantly by topic. The percentage of participants with recognized representation—who knew their preferences were reflected in their state law—ranged from 31.5% (for at-will employment) to 72.5% (for income tax). The smallest category within each individual topic was that of overpessimistic phantom misrepresentation, in which an average of 9.5% of participants fell: Here again, however, there was variance, with the total percentage ranging from 4.1% (for income tax) to 18.1% (for medical malpractice damage caps). For recognized misrepresentation, the average across topics was 18.2%, with a range of between 11.5% (for texting and driving) and 36.4% (for right to a clean environment). Finally, and maybe most interestingly, across topics, an average of 22.9% (ranging from 8.9% for income tax to 27.8% for at-will employment) of participants fell in the overoptimistic "phantom representation" category. This means that on average, almost 1 out of every 4 participants falsely believed that their normative aspirations were reflected in the laws under which they live.

IV. DISCUSSION AND IMPLICATIONS

This part identifies some of the key implications of the study's findings. It begins by reflecting back on the presumption with which the article started: the presumption of legal knowledge, and against legal ignorance—that "nobody is presumed ignorant of the law."[122] It then identifies some of the theoretical implications of the study's key findings: namely, that actual legal knowledge is imperfect, and that when people get the law wrong, they tend to assume that the law comports with their normative preferences. Finally, it reflects on implications of these findings for past and future research.

A. The Presumption of Legal Knowledge

This study found no empirical support for the general presumption that people know what the law is. In fact, legal knowledge was imperfect for every surveyed topic. Even for the best-known rule—whether a state has a state income tax—one out of every six participants believed their state's law to be whatever it is not. This is significantly better than what we would expect from chance in a true/false test,[123] where three out of six participants would be

122. *See supra* note 1.

123. Chi^2 (df) = 394.97 (1), $p < 0.001$.

expected to get the answer wrong. But it would be a mistake to take it as evidence of reliable universal notice.

And that is for the best-known of the surveyed rules. Notably, the study also found that there is some category of legal issue where legal rules are not only not universally known; they are not even generally predictive of people's beliefs. In this survey, that category was represented by medical malpractice damage caps: whether participants lived in a state with medical malpractice damage caps had no apparent relationship with whether they *believed* themselves to live in a state with a medical malpractice damage cap.[124] Or in other words, for at least some category of law, the reality of the legal rule was unrelated to people's fantasy of the law.

One reasonable way to construe these findings is that the presumption that nobody is ignorant of the law is empirically false. Someone was ignorant of all of the laws surveyed; and for some laws, there was no evidence that laypeople knew any more of the law than they could have guessed by chance.

At least as strikingly, the study also found that when people mistake the law, they did not appear to do so randomly. Rather, when people got the law wrong, they were optimistically wrong about two-thirds of the time, assuming that the law comported with their normative preferences.

B. Implications for Legal Theory

As simple as they are, these two findings—that legal knowledge is imperfect, and that mistaken beliefs tend to be normatively optimistic rather than pessimistic—have important implications for legal theory.

For law-and-economics models, which seek to incentivize socially desirable behaviors and disincentivize undesirable behaviors, the finding that people often mistake the law should trigger uncomfortable questions about when and how legal incentives work. Where there is a gap between people's subjective legal beliefs and formal legal rules, the subjective belief—rather than the rule itself—should be understood as the primary driver of incentives. Law and economics scholars might also consider in more detail how to model optimal levels of legal knowledge. This is likely to be tricky, as the socially optimal level of convergence between actual legal rules and subjective beliefs may vary with context: while lesser knowledge obviously mutes the ability of legal rules to effectively generate (dis)incentives, in other cases, members of the public mistaking the law may actually generate a kind of "placebo

124. Chi^2 (df) = 1.42 (1), p = 0.233. Misprision of a felony is only marginally predictive. Chi^2 (df) = 2.96 (1), p = 0.086^{+}.

effect" of social benefits.[125] Counterintuitively, such effects could sometimes be maximized by adopting policies intended to mislead people about what the law is. Whether or not this approach is normatively desirable, law and economics scholars could valuably model optimal levels of legal knowledge under varying circumstances, and might work to develop mechanisms for policymakers to reduce the cost of acquiring legal information where additional levels of knowledge would be socially optimal.

Deterrence theorists might further question whether people are deterred by laws they do not know, and should consider the possibility of asymmetric deterrence for groups and persons whose knowledge tends to be less. Such asymmetries could be quantified, both to predict where and for whom the law is less likely to be an effective deterrent, and to guide policy for addressing asymmetric deterrence and variable information. Importantly—but also potentially awkwardly—the results found here suggest that people's legal knowledge may not operate independently of their normative convictions. This suggests that legal knowledge is not scattered randomly across the population; rather, people are more likely to know the law when they agree with it, and are more likely *not* to know the law when they think the law is misguided. This suggests that people whose moral views diverge from the law are less likely to be deterred by it—not necessarily because of flouting, but because they are more likely to mistake what the law is. Effectively conveying the law to these people—necessary for them to be deterred—may pose special challenges, which deterrence theories might work to address.

Where people's subjective beliefs about legal rules diverge from the rules themselves, it also creates troubling barriers to the law's expressive function. In fact, expressive theorists might consider that people may glean greater expressive value from whatever they believe the law to be, than from whatever it actually is. If people believe that they live in a state with a death penalty, they may well believe that they live in a state that has expressed certain values about crime and punishment. To take a specific example, the 37% of surveyed Illinois residents who (wrongly) believed that Illinois has a death penalty have substantively the same messages expressed to them as the 77% of Montana residents who (correctly) believe that Montana has a death penalty.[126] And both experience importantly different messages than the 31%

125. Consider the common belief that one is legally required to report felonies. In most cases, this belief is mistaken. But the belief in the requirement may incentivize people to report felonies—a socially beneficial behavior—without any of the attendant costs associated with passing, administering, or enforcing the law of misprision of a felony. For a discussion of "placebo effects" in law, see Aviram, *supra* note 28.

126. *See* Appendix B, *infra* p. 280.

of surveyed Californians who (wrongly) believe that California has no death penalty.[127] Where the expressive function of law is important, then, public belief is a critical measure, and one on which significant additional work should be done. In particular, expressive theorists might consider whether—as for law and econ scholars—a false belief is sometimes sufficient or even desirable for their normative goals. They might also consider the impact on perceived legal legitimacy when people generally believe that their moral aspirations are already imbedded in the law.

Finally, and in some ways relatedly, public legal beliefs have important democratic implications, particularly where there is reason—as the findings of this study suggest there are in many contexts—to think that people with different beliefs also tend to hold different normative aspirations. For example, the survey reported below found that 31% of Californian participants incorrectly believed that Californian judges and juries are prohibited from sentencing a criminal defendant to death.[128] Furthermore, people in California who believe there *is* no death penalty are disproportionately likely to aspire to live in a state without a death penalty.[129] Or in other words, people who might be expected to be most likely to militate for a change in current law—for a move from a death penalty to no death penalty—are also more likely to hold the mistaken belief that they already live in their preferred world. Furthermore, this phenomenon appears to be systematic: for all topics, the category of people experiencing "phantom representation"—the inaccurate and overoptimistic belief that their aspirations are reflected in their state law—was larger than the category of people experiencing phantom misrepresentation. This creates a disturbing potential distortion of political processes, and may sometimes prevent people from seeking legal change, even when such change would comport better with their normative views than the current state of the law.

C. Implications for Research

This section considers the implications of the study's findings for past and future research. It begins by reflecting on how the study's findings compare both to past findings and past predictions. It builds on that analysis to identify

127. *See* Appendix B, *infra* p. 280.

128. Note that, while death sentences are permitted in California, the state has a current stay on pending executions because of concerns regarding the humaneness of lethal injection procedures. Californian voters also considered a voter initiative in 2012, Proposition 34, which would have replaced the death penalty with life imprisonment. It was defeated with 52% of the vote. *Proposition 34*, INST. GOVERNMENTAL STUD., https://igs.berkeley.edu/library/elections/proposition-34 [https://perma.cc/R7KC-SNG8] (last visited Mar. 5, 2019).

129. *See supra* Figure 1 ($p = 0.009$).

limitations in the existing study, and opportunities for further exploring the empirical reality of what people know about the law.

1. Revisiting Past Research

The topic-specific research done in the past on legal knowledge generated several predictions, against which the results of this study can be evaluated.

First, consider the suggestion made by Darley, Carlsmith, and Robinson that people's moral intuitions about the law may be particularly strong in criminal—versus non-criminal—arenas, and that this might explain their finding that people's beliefs about the law converged with their normative preferences. There will be more to say about this below, in the evaluation of the relationship between people's beliefs and aspirations, and of the cognitive dissonance levels they tolerate. For now, it is worth noting that their intuition that criminal laws might be particularly intuitive—and thus well-known—was not supported by the study here. Instead, the only criminal law among the survey topics in the instant study—misprision of a felony, one of the same topics Darley et al. surveyed—was one of the *least* well-known.[130]

Second, consider Darley et al.'s idea that citizens tend to share the intuitions of the majority rule.[131] The results of this study do not support generalizing this statement either.[132] Furthermore, Darley, Carlsmith, and Robinson concluded that, for three of the four issues they tested, "the citizens of states that hold deviant versions of these laws are unaware of their content," which they took as support for the hypothesis that majority rules might drive belief.[133] This survey also did not generally bear that hypothesis out; in fact—in direct conflict with Darley, Carlsmith, and Robinson—this study found that most participants in "deviant" states *were* aware of their state's unusual requirement to report felonies.[134] Furthermore, both in

130. Only 47.2% of participants accurately answered the true/false question about felony reporting.

131. With one exception in one state, Darley, Carlsmith, and Robinson concluded that "citizens showed no particular knowledge of the laws of their states." Darley, Carlsmith & Robinson, *supra* note 53, at 181.

132. For all issues except two, participants *did* show particular knowledge of their state's laws. Note that one of the two—misprision of a felony, which showed only a marginal relationship between state rule and subjective belief—is one that Darley et al. also surveyed. If anything, perhaps this suggests that people may know state-specific *criminal* laws *less* well than other laws.

133. Darley, Carlsmith & Robinson, *supra* note 53, at 181.

134. In this study, 63.3% of South Dakotans and 67.1% of Texans accurately stated that "*[p]eople are legally required to report to the police if they know someone has committed a felony.*" When Darley, Carlsmith, and Robinson ran their study, Texas had not yet adopted its

contrast to their hypothesis, and to the results gleaned by Kim twenty-five years ago, Montanans, who live in the only state without an at-will employment default rule,[135] mostly knew of their state's unusual rule.[136] On the other hand, most Illinoisans and Montanans—who live in two of six states with a state constitutional right to a clean environment[137]—did not know *their* states' unusual provision of a state constitutional right to a clean environment.[138] And Texans and Montanans, who at the time of the survey lived in two of the four states with no state texting and driving ban for all drivers,[139] were mostly unaware of their state's unusual permissiveness.[140] Nevertheless, even for texting and driving and the constitutional right to a clean environment, while most participants in "deviant" states got their state law wrong, there was still a statistically significant difference between belief in those states and belief in states with the majority rule.[141] In sum, this study found no general support for the proposition that people are more likely to believe—even in "deviant" states—that the majority rule applies.

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current rule; thus South Dakota was the only state in their study with a misprision of a felony rule. *See* TEX. PENAL CODE ANN. § 38.171 (2003).

135. *See* MONT. CODE ANN. § 39-2-903(5) (2001).

136. Sixty-three percent of Montanans answered this question correctly. This was significantly different than reports in states with the majority at-will default rule. Chi^2 (df) = 17.32 (1), p < .001***.

137. *See* ILL. CONST. art. XI, § 2 ("Each person has the right to a healthful environment."); MONT. CONST. art. II, § 3 ("All persons are born free and have certain inalienable rights. They include the right to a clean and healthful environment . . . ."); *see also* HAW. CONST. art. XI, § 9 ("Each person has the right to a clean and healthful environment . . . ."); MASS. CONST. art. XCVII ("The people shall have the right to clean air and water, freedom from excessive and unnecessary noise, and the natural, scenic, historic, and esthetic qualities of the environment . . . ."); PA. CONST. art. I, § 27 ("The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment."); R.I. CONST. art. I, § 17 (The people . . . shall be secure in their rights to the use and enjoyment of the natural resources of the state with due regard for the preservation of their values; and it shall be the duty of the general assembly to provide for the conservation of the air, land, water, plant, animal, mineral and other natural resources of the state . . . .").

138. Only 24.7% of Illinoisans believed that "*[t]here is a constitutional right to a clean environment*," and only 46.6% of Montanans did so. That said, the difference between people's beliefs in states with and without this rule were still statistically significant.

139. The states are Texas, Montana, Arizona, and Missouri (which does ban texting for drivers under twenty-one). For a summary of state laws on texting and driving, see *Cellular Phone Use and Texting While Driving Laws*, NAT'L CONF. ST. LEGISLATURES, http://www.ncsl.org/research/transportation/cellular-phone-use-and-texting-while-driving-laws.aspx [https://perma.cc/KR3S-E6MA] (last updated Apr. 30, 2018). Note that Texas adopted a ban on texting and driving on September 1, 2017, after the survey was administered.

140. Only 34.7% of Texans and 35.6% of Montanans surveyed believe that *"[d]rivers are legally allowed to text while driving*" in their state.

141. For texting and driving, Chi^2 (df) = 56.91 (1), p < .001***; for environmental rights, Chi^2 (df) = 4.08 (1), p = .043*.

Even more importantly, however, this study does not find support for Darley et al.'s suggestion that the important phenomenon they detected—of people tending to believe the criminal law reflects their normative commitments—is a special phenomenon restricted to criminal law contexts, as they suggested it might be. Rather, this study suggests that the phenomenon of wishful thinking—of subjective belief about the law conforming to normative preference—occurs across multiple areas of law.

2. Opportunities for Future Research

This sub-section flags a series of opportunities for future research regarding legal knowledge, lay belief, and legal aspirations.

a. The Dangerous Appeal of Wishful Thinking

The general finding that participants tended to conform their beliefs and aspirations is consistent with the research on motivated cognition, which finds that people tend to conform their beliefs to their ends.[142] But which is the ends, and which the means? Do people conform their beliefs to their aspiration—change what they believe to make it consistent with their preference—or do they conform their aspirations to their belief, changing what they prefer to make it consistent with their belief about what the world is? The data above do not reveal the direction of this relationship.[143] In theory, at least, both could happen. And in fact, if people experience the status of dissonance between legal belief and legal aspiration as costly, perhaps we should expect the relationship to operate in both directions.

Psychological research suggests that individuals tend to experience cognitive dissonance as costly.[144] As a result, from a cognitive perspective, it is easier for people to conform new information to existing preferences and worldviews than to assimilate information that is in tension with existing views. The result is cognitive dissonance avoidance, where individuals take steps to reduce or eliminate their mental conflict.[145]

If an individual faces a situation where she believes that her state's laws are in tension with her aspirations for those laws, she can tolerate that dissonance, or she can change either her belief about the law or her aspirations for it. Where she is confident in her belief about the law, changing

142. *See* discussion *supra* Part II.

143. *See* FREEMAN & ROGERS, *supra* note 50, at 118–21; discussion *infra* Section IV.C.2.b.

144. *See* LEON FESTINGER, A THEORY OF COGNITIVE DISSONANCE 3 (1957) (proposing the theory of cognitive dissonance, where an individual experiences cost at holding two apparently conflicting ideas at once, and reviewing a number of studies).

145. *Id.* at 3; *see also* CASS R. SUNSTEIN, LAWS OF FEAR 154 (2005).

her belief may be relatively costly, so she might find it cognitively cheaper to change her aspirations to align with her belief. Where her aspirations for the law are important to her, changing aspirations will be relatively costly, so she may change her belief about the law to align with her aspirations. Where both are high cost, however—high enough cost to exceed the cognitive cost of cognitive dissonance—we should expect her to tolerate the dissonance.

This suggests that individual people may reasonably develop cognitive congruence between their aspirations for their law and their beliefs about what the law is, so as to reduce on net the cognitive costs they experience from holding dissonant beliefs and aspirations. But it also suggests that the relative cognitive costs to various conforming strategies might vary with topic and even with individual. If this is right, it would mean that sometimes people would change aspirations to conform to beliefs (where the cost of changing the aspiration was relatively low); sometimes they would change beliefs to conform to aspirations (where the cost of changing the belief was relatively low); sometimes costs might be a wash; and sometimes, the cost of changing either aspiration or belief would be so high that it would make sense to simply tolerate dissonance.

The findings in this study do not tell us which of these conforming strategies people are generally pursuing, but they do find that for all topics surveyed, more people adopted congruent beliefs and aspirations than tolerated dissonance.[146] This fits with prior research on cognitive dissonance avoidance, which also suggests that people prefer to avoid dissonance where possible.[147] And indeed, for individuals, cognitive dissonance avoidance—whether it is by conforming beliefs to aspirations, aspirations to belief, or both—may present a rational strategy for conserving cognitive resources.

But while dissonance avoidance might present a rational cognitive strategy for individuals, this strategy sets up disturbing conflicts between what may be best for individuals *qua* individuals, and what may be best for society. If people tend to assume that laws are already whatever they would prefer them to be, phantom representation may create a systematic barrier to people pressuring for real legal change. The placebo of wishful thinking may prevent people from seeking meaningful change.

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146. Cognitive congruence ranged from as high as 81.4% (for income tax) to 50.5% (for the constitutional right to a clean environment). *See* Appendix H, *infra* p. 286. Note that this does also mean that a not-insignificant number of participants were willing to tolerate dissonance for every selected topic: from a high of 49.5% (for the constitutional right to a clean environment) to a low of 18.6% (for income tax). *Id.*

147. See *supra* notes 32–42, 39 and accompanying text.

Of course placebos also provide benefits, so the findings are not all grim. One optimistic way to construct the findings of this study is that people have a tendency to believe themselves legally bound to do the things that they think they ought to be bound to do. Consider the finding that many people in Texas and Montana appear to (inaccurately) believe that their state prohibits texting and driving.[148] These people may well be less likely to text and drive. Distracted driving is dangerous;[149] if the phantom of this law scares people away from this dangerous activity, perhaps we should be happy: perhaps it is just as well. Or consider that many participants in most states reported that they believe they are required to report felonies, including in the four states in the sample (California, Florida, Illinois, and Montana) where there is no such requirement.[150] Felonies are, by definition, deeply damaging: they represent behaviors that communities have designated as so heinous as to deserve criminal stigma, imprisonment, and in some cases the loss of fundamental rights. If many people inaccurately believe that they must report felonies, perhaps we should be consequentially glad, because this belief might well be expected to increase the reporting of felonies, and that may well lead to more felons being caught.

If we are glad about these things, though, it should be an uneasy gladness. Despite residents' apparent beliefs, and despite the fact that most of those states' participants report that they believe texting and driving should not be legal,[151] at the time of survey, Texas and Montana did not actually have state-wide laws that prohibit texting and driving. In these contexts, phantom representation looks like a disability; a blight on states' ability to develop laws that reflect their population's vision of what laws should look like. The role of notice in law is deeply rooted for good reason. Insofar as motivated cognition poses a systematic barrier to effective notice, it poses a systematic barrier to pressure for legal change. If most Texans and Montanans do in fact believe that there should be a law prohibiting texting and driving, then it seems that the best outcome is for Texas and Montana to pass laws prohibiting texting and driving. Yet if citizens believe themselves to already live in a world where such a law has passed, their interest in militating for change will be subversively undermined, in ways that are unlikely to be

148. In Texas, 65.3% of participants held this inaccurate belief; in Montana, 63.4% of participants held this inaccurate belief.

149. In 2015, there were 3,477 deaths and 391,000 injuries in motor vehicle crashes involving distracted drivers. *See* NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, U.S. DEP'T OF TRANSPORTATION, REPORT NO. DOT HS 812 381, DISTRACTED DRIVING 2015, at 1 (2017), https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812381 [https://perma.cc/9FDR-3G9N].

150. *See* Appendix B, *infra* p. 280.

151. *See* Appendix F, *infra* p. 284.

apparent either to them or even to otherwise-educated observers. Empirical recognition of this phenomenon will be possible only where—as in the findings of this study—people's beliefs and aspirations are collected and compared to formal legal rules.

In sum, then, individuals have general cognitive incentives to adopt strategies of aspirational belief, conforming their beliefs about the law and their aspirations for it (whether that involves changing belief, changing aspiration, or changing both). Unfortunately, this private incentive can create public costs, as aspirational beliefs will sometimes lead to phantom representation: to an inaccurate belief that one's legal aspirations are already enshrined in the law. The phantom law may then act as an insubstantial façade, preventing the construction of actual laws that represent the public's collective aspirations.

b. Other Limitations and Extensions

The study reported above presents what I take to be useful initial evidence regarding legal knowledge. Like any empirical study, however, it also has limitations that provide opportunities for further research. This section points to some of these and does its best to flag particular opportunities where further research might be both helpful and feasible.

Substantive scope. The topics surveyed in this study were selected to give a range of subjects with variable state laws that, in pre-testing, showed differences in subjective importance and politicization, and which represented a variety of different areas of law. They were also selected where possible to follow up on prior research, as with the questions regarding at-will employment and misprision of a felony. That said, many other topics might also have satisfied these characteristics, so in that sense, the selection of this particular list over other criteria-satisfying possible lists was arbitrary. Any similar list could have worked as well as a starting point, and there is no reason to fetishize these particular topics.

Future studies might easily expand the topics surveyed to include additional issues; and indeed, there may be strong reasons to run such studies wherever it is particularly important to be able to predict or evaluate the likelihood of legal compliance, or the likely behavioral or expressive impact of a rule, which is likely to be tied to subjective belief, and thus also to aspiration.

Additional studies might also move the state of knowledge closer to being able to identify reasonable default assumptions for the proportion of the public that is likely to know any rule that has not yet been subjected to empirical study. While the issues here showed some general trends (for example that no topic surveyed showed perfect convergence between rules

and beliefs, beliefs and aspirations, or aspirations and rules; and that beliefs tend to vary with both aspirations and actual rules), there was also significant variance across the topics surveyed. As further research on additional topics accumulates, it may also illuminate these general trends.

Another expansion of the methodology used here might apply, not to state laws, but to federal laws, and/or to laws created by different institutions. Do people exhibit different relationships between rules, beliefs, and aspirations when laws are regulatory rather than legislative or based in the common law, or when laws are federal rather than state? Further work is needed to answer these questions.

Geographic scope. The states selected here were chosen to take advantage of the natural experiment created by state law variation. The primary constraint on selection of states was to ensure that each topic selected had at least one state on each side of the formal legal rule. So for example, the selection of state income tax as a topic required at least one state with no state income tax, and at least one state with state income tax. For many topics—such as income tax—this led to a large set of states that could still have been selected.

Given the large possible set, initial selection of states was performed by choosing a set of states whose laws apply to the largest number of people. Four of the five most populous U.S. states—California, Texas, Florida, and Illinois—provided variation for all but two of the selected topics: it provided no state that defaults into for-cause employment contracts, and no state with a duty to report a known felony. Only one state—Montana—has a default for for-cause employment contracts, so that state was added. For misprision of a felony, South Dakota was added, as it was a state surveyed by Darley, Carlsmith, and Robinson's important prior studies. The addition of Montana (the forty-fourth most populous state) and South Dakota (the forty-sixth most populous state)[152] also provided a way to evaluate the possibility of population-related effects. In sum, then, six states were selected for this study: California, Texas, Florida, Illinois, Montana, and South Dakota.

Future studies could obviously be expanded to the remainder of the U.S. states, as well as to other countries and provinces.

Population selection. This study was run on Mechanical Turk, an online service that allows fast and economical surveying of a broad swath of the U.S. population, and which is therefore useful for large studies of first

152. *The 50 US States Ranked by Population*, WORLD ATLAS, http://worldpopulationreview.com/states/ [https://perma.cc/8UKG-76JJ], (last updated Sept. 14, 2018).

impression like this one.[153] But while the population taking Mechanical Turk surveys is diverse in comparison to traditional convenience samples, it may not necessarily be representative of the population of any particular state along any particular identity characteristic, creating a potential limitation on generalizability where particular identity characteristics become important. The purpose of the study was not to investigate these identity characteristics, or their specific relationship with the phenomenon being studied; however future research focused on these characteristics might require tailored panel construction. Fortunately, the results of this study may also help to identify the identity characteristics that could be important to control for in future studies (and suggest several that may be less important). In particular, except for a few specific topics, this study found no evidence that political affiliation, political orientation, race, gender, or income is generally predictive of belief or cognitive dissonance, although it did find that age and education level are predictive of belief (and specifically of the accuracy of belief). Where the relationships of belief and aspiration are important in future analyses, this suggests that it may be particularly important to college information on age and education level.

Insofar as more complete political or cultural ideologies are believed to mediate legal knowledge, dissonance tolerance, or representation, it may make sense to use population panels that have been designed to be representative on the chosen characteristic, and present an opportunity for follow-up study. It will also make sense to include state-based political affiliation weights on this data, particularly for representation calculations, as Democrats were generally oversampled and Republicans undersampled.

Survey design: breadth vs. depth. At what level of specificity should topics be presented: as simple legal rules, as more nuanced, fact-specific vignettes, or somewhere in between? Past research on these topics had focused on single issues or types of law, and on relatively fact-specific vignettes. A key goal of this project, by contrast, was to allow for evaluation of the general relationships between formal legal rules, beliefs about those rules, and aspirations about what those rules should be, and to allow for such comparisons across multiple legal topics from multiple areas of law, without risking decreased data quality from survey fatigue. Breadth thus seemed more important than depth for the purposes of this particular study.

That said, people may engage with the law differently when it is presented in a simplified and streamlined form (such as whether "people are legally required to report to the police if they know that someone has committed a felony") than when it is presented with more facts and context, such as is

153. *See generally* Robertson & Yoon, *supra* note 63; *supra* notes 63–69 and accompanying text.

possible in a vignette study. One possible path for future study would be looking at whether there are in fact differences in how people perceive the law, depending upon how abstractly it is presented to them—as a simple rule statement, or with an animating fact pattern.

Causal inference. Causal inference in social science remains challenging, and this study was not designed to tease apart the direction of detected effects.[154] For that reason, I have tried to be careful in characterizing the relationships between rules, beliefs, and aspirations, for example by emphasizing that the covariance between belief and aspiration means both that people tend to believe that the law is whatever they think it should be, and that they tend to think that the law should be whatever they think it is. I have also flagged reasons why I believe that relationships like this one will often work in both directions, and reasons that the relationship matters regardless of the direction(s) of the causation. That said, for a number of potential policy interventions, it would be helpful to know whether aspiration is a greater driver of belief, or whether belief is a greater driver of aspiration. This would therefore be a valuable topic for further research.

Mechanisms of Changing Knowledge. This study inquired into the public's understanding of their own state laws, under the presumption that people's starting intuition might matter both to how they resolve many of their own disputes, and to the democratic processes that can lead to legal change. In real life, however, people have the opportunity to learn more about the law through a variety of different mechanisms. Further research might fruitfully explore how and under what circumstances people update their beliefs about the law. In addition, it is possible that people's general views of law may change over time, for example in response to important world events, or to changes in the political landscape. A longitudinal study allowing for periodic revisitations of people's subjective beliefs and normative aspirations would allow the tracking and study of these changes.

Legal optimism. One important finding of this study was that people tended to make legal mistakes optimistically: that they were more likely to wrongly believe that the law comported with their normative priors, than to wrongly believe that the law was unjust or normatively suspect. Though such a finding is novel as to law, and I have argued that it has special implications

154. The most suggestive data in the study may be the stage order effects, discussed *supra* note 77, which found that participants who were primed first with aspiration were more likely to answer the belief question in a way that conflicted with their aspiration—hinting, perhaps, that belief about a law creates a stronger pressure to conform an aspiration than an aspiration creates to conform a belief. But this data should be interpreted merely as suggestive rather than as robust evidence for causal inference.

for law and legal theory, it is also consistent in many ways with past empirical work on optimism and just world bias.[155] An additional rewarding extension would be to evaluate whether there is something special about *legal* optimism, which makes people more or less optimistic as to law than as to other facts that make up their lived experience. Such research might have special implications for exploring how beliefs about law relate to perceived legal legitimacy.

V. CONCLUSION

This article has presented some simple empirical evidence showing that people do not always know what the law is. Furthermore, it has shown that when people mistake the law, they tend to do so in a systematic direction: optimistically believing that the law is normatively better than it is. These findings suggest that the common presumption of legal knowledge—which routinely informs work on legal incentives, deterrence, notice, expressive theory, and democratic theory—is often descriptively inaccurate, and may obscure more complex accounts of how and why people perceive the law as they do. In the future, scholars should take seriously both the possibility that people often do not know the law, and that their mistakes about the law are systematically optimistic.

* * *

155. *See* discussion *supra* Section II.A.

APPENDIX A: QUESTIONS USED TO ELICIT PARTICIPANTS' SUBJECTIVE BELIEFS AND NORMATIVE ASPIRATIONS

Topic	***Belief Stage***	***Aspiration Stage***
abortion waiting period	*A woman is required to complete a waiting period before being allowed to have an otherwise legal abortion.*	*A woman should be required to complete a waiting period before being allowed to have an otherwise legal abortion.*
at-will employment	*Employers may legally fire an employee for any reason, or for no reason at all, unless the employee has a special agreement otherwise.*	*Employers should be able to legally fire an employee for any reason, or for no reason at all, unless the employee has a special agreement otherwise.*
death penalty	*Judges and juries are legally allowed to sentence a criminal to death under state law.*	*Judges and juries should be allowed to legally sentence a criminal to death under state law.*
drone deliveries	*Private companies are allowed to use drones (unmanned aerial vehicles) to deliver products to customers' homes.*	*Private companies should be allowed to use drones (unmanned aerial vehicles) to deliver products to customers' homes.*
environmental rights	*There is a constitutional right to a clean environment.*	*There should be a constitutional right to a clean environment.*
handgun waiting period	*A person is required to complete a waiting period before being allowed to purchase an otherwise legal handgun.*	*A person should be required to complete a waiting period before being allowed to purchase an otherwise legal handgun.*
income tax	*The state has a state income tax.*	*The state should have a state income tax.*
medical malpractice damage caps	*If someone is harmed because of medical malpractice, there is a cap on the maximum amount of money that person can receive in compensation for pain and suffering.*	*If someone is harmed because of medical malpractice, there should be a cap on the maximum amount of money that person can receive in compensation for pain and suffering.*
reporting felonies	*People are legally required to report to the police if they know someone has committed a felony.*	*People should be legally required to report to the police if they know someone has committed a felony.*
texting and driving	*Drivers are allowed to legally text while driving.*	*Drivers should be allowed to legally text while driving.*

APPENDIX B: PERCENTAGE OF RESPONDENTS CORRECTLY IDENTIFYING THEIR STATE'S LAW

	CA		**FL**		**IL**		**TX**		**MT**		**SD**		**All average % correct**
abortion wait. period	F	82.8	T	37.7	F	76.9	T	57.2	F	82.2	T	56.7	69.6
at-will employment	T	48.3	T	66.5	T	59.2	T	65.9	F	63.0	T	81.7	62.0
death penalty	T	69.5	T	76.7	F	63.8	T	97.1	T	76.7	T	81.7	77.1
drone deliveries	F	58.6	F	67.4	F	69.4	F	75.1	F	57.5	F	68.3	66.8
environmental right	F	77.0	F	70.2	T	24.7	F	79.8	T	46.6	F	76.7	62.8
handgun wait. period	T	87.9	T	67.4	T	83.2	F	52.6	F	53.4	F	40.0	68.7
income tax	T	96.6	F	69.3	T	97.1	F	75.1	T	78.1	F	75.0	82.6
medmal damage caps	T	53.4	T	54.9	F	49.1	T	62.4	T	53.4	T	50.0	54.5
reporting felonies	F	42.5	F	41.4	F	35.6	T	67.1	F	42.5	T	63.3	40.4
texting & driving	F	97.1	F	77.7	F	93.1	T	34.7	T	35.6	F	77.7	72.5
average % correct/state	71.4		62.9		65.21		66.7		58.9		67.0		65.3
number of participants	174		215		174		173		73		60		869

	T	state's law = "true"	F	state's law = "false"

APPENDIX C: DEMOGRAPHICS

	CA	**FL**	**IL**	**TX**	**MT**	**SD**	**All**
number of participants	174	215	174	173	73	60	869
age	35.2 (10.3)	36.2 (11.9)	35.5 (10.8)	35.4 (12.1)	35.6 (11.3)	34.7 (9.6)	35.5 (11.2)
gender[156]	.551/ .448	.453/ .537	.471/ .523	.468/ .532	.397/ .589	.390/ .610	.471/ .525
race[157]*–Caucasian*	.598	.763	.799	.769	.918	.950	.764
race–Asian	.230	.033	.109	.069	.014	.033	.093
race–Hispanic	.109	.107	.052	.139	.027	.017	.090
race–African American	.115	.079	.052	.069	.014	.017	.069
race–Native American	.017	.009	0	.029	.041	0	.015
race–Other	.006	.033	.011	0	.014	0	.013
political affiliation[158]	.511/ .115/ .316/ .057	.372/ .144/ .423/ .060	.506/ .138/ .310/ .046	.453/ .192/ .320/ .035	.205/ .192/ .521/ .082	.288/ .203/ .458/ .051	.423/ .155/ .369/ .053
political orientation[159]	3.57 (.97)	3.37 (.94)	3.48 (1.05)	3.49 (1.02)	3.11 (.99)	3.19 (.82)	3.42 (.99)
income[160]	2.58 (1.36)	2.36 (1.05)	2.64 (1.31)	2.67 (1.27)	2.25 (1.16)	2.90 (1.14)	2.55 (1.24)
education[161]	4.02 (1.23)	3.94 (1.33)	4.15 (1.23)	3.97 (1.27)	4.08 (1.37)	4.27 (1.45)	4.04 (1.29)

156. Gender coding: 1 = male, 2 = female.

157. For all race variables, proportion in table is proportion of participants who checked the box for that race/ethnicity. Participants could check more than one box.

158. 1 = Democrat, 2 = Republican, 3 = Independent, 4 = Other.

159. 1 = Very conservative, 2 = Conservative, 3 = Moderate, 4 = Liberal, 5 = Very liberal.

160. 1 = Less than $25,000, 2 = $25,000 to $49,999, 3 = $50,000 to $74,999, 4 = $75,000 to $99,999, 5 = $100,000 or more.

161. 1 = some high school, 2 = high school, 3 = some college, 4 = associate's degree, 5 = bachelor's degree, 6 = some graduate school, 7 = graduate or professional degree.

APPENDIX D: CHI^2 TEST TO DETERMINE WHETHER PEOPLE IN STATES WITH DIFFERENT RULES HAVE SIGNIFICANTLY DIFFERENT BELIEFS ABOUT THE LAW

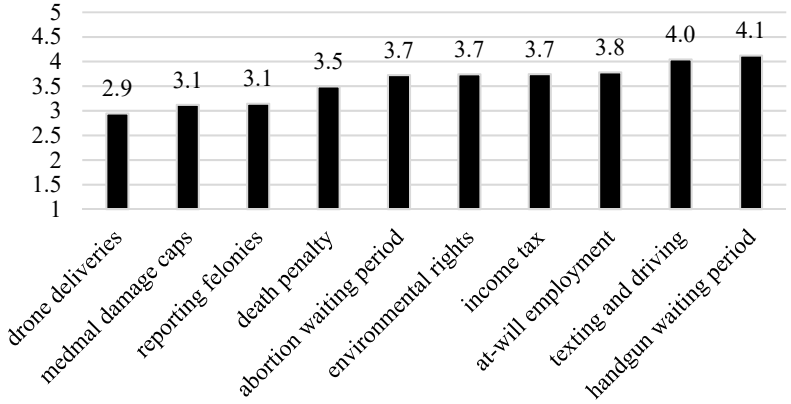
Issue	**Chi^2 (df)**	**P**[162]
state income tax	394.97 (1)	< .001***
death penalty	133.78 (1)	< .001***
texting and driving	56.91 (1)	< .001***
abortion waiting period	75.99 (1)	< .001***
handgun waiting period	77.00 (1)	< .001***
environmental rights	4.08 (1)	.043*
at-will employment	17.32 (1)	< .001***
medical malpractice damage caps	1.42 (1)	.233
reporting felonies	2.955 (1)	.086$^+$

162. For this table, the *p* value represents the probability that chance (rather than any underlying relationship between people's beliefs about the law and the formal legal rule) would explain participant's answers. Following common scientific conventions, this paper treats a *p* value of 0.05 (i.e. a chance of 1 in 20 that the result is chance) as statistically significant. Again following convention, $p \leq 0.05$*, $p \leq 0.01$**, $p \leq 0.001$***. Note that a $p < 0.001$ indicates that there is less than 1 in 1000 probability that the results are attributable to chance. Some social sciences indicate probabilities at the $p = 0.1$ range; where relevant, this paper reports as $p \leq 0.1$ ($^+$).

APPENDIX E: SUBJECTIVE IMPORTANCE

Mean Subjective Importance of Each Topic

5 = "extremely important"
1 = "not at all important"

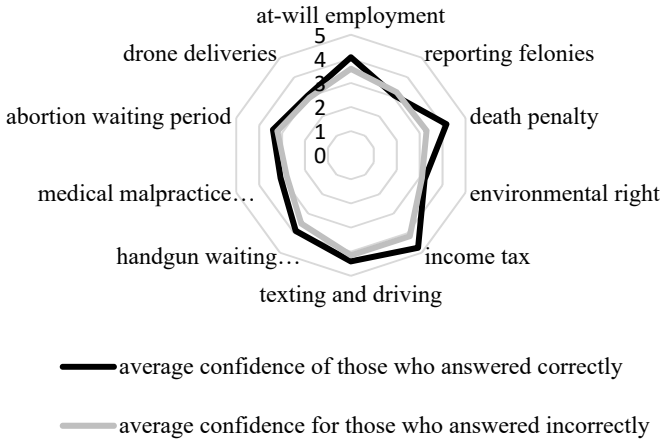


Mean Subjective Importance of Each Topic for Those Who Answered Correctly and Incorrectly

Issue	Mean Importance	Mean Importance for Those Who Answered Correctly	Mean Importance for Those Who Answered Incorrectly
drone deliveries	2.9445	2.948	2.941
medmal damage caps	3.122	3.148	3.096
reporting felonies	3.1445	3.101	3.188
death penalty	3.496	3.532	3.46
abortion waiting period	3.7245	3.799	3.65
environmental rights	3.743	3.72	3.766
income tax	3.746	3.819	3.673
at-will employment	3.7795	3.842	3.717
texting and driving	4.043	3.968	4.118
handgun waiting period	4.1205	4.109	4.132

APPENDIX F: KNOWLEDGE AND CONFIDENCE

Average Confidence of Participants Who Accurately and Inaccurately Reported State Law



Comparison of Mean Confidence of Participants Who Answered Correctly ($Mean_C$) and Incorrectly ($Mean_I$) for Each Topic

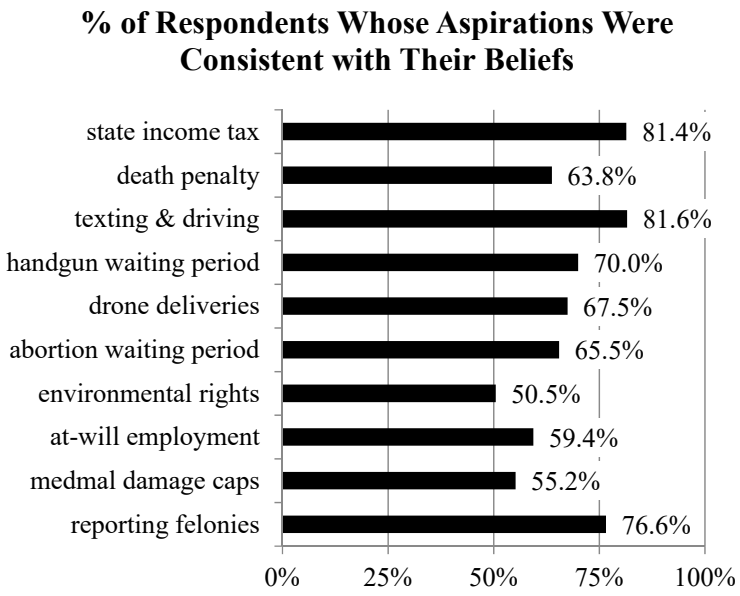
Issue	$Mean_C$ (SD)	$Mean_I$ (SD)	$M_C - M_I$	t-score (df)	p
at-will employment	4.063 (1.053)	3.585 (1.149)	.478	6.26 (863)	< .001***
reporting felonies	3.069 (1.206)	3.226 (1.135)	-.157	-1.97 (861)	.049*
death penalty	4.168 (1.068)	3.302 (1.239)	.867	9.67 (862)	< .001***
environmental right	3.219 (1.216)	3.098 (1.177)	.121	1.43 (858)	.153
income tax	4.741 (0.672)	4.154 (1.667)	.587	8.35 (858)	< .001***
texting and driving	4.404 (0.970)	4.151 (0.986)	.253	3.40 (860)	.001**
handgun wait. period	3.884 (1.068)	3.504 (1.156)	.380	4.72 (862)	< .001***
medmal damage caps	3.066 (1.164)	2.799 (1.127)	.266	3.40 (863)	.001**
abortion waiting period	3.399 (1.170)	3.207 (1.190)	.192	2.30 (859)	.022*
drone deliveries	3.047 (1.260)	2.940 (1.130)	.107	1.21 (859)	.228

APPENDIX G: POLITICAL AFFILIATION & LEGAL ASPIRATION

Mean Aspiration by Political Affiliation and T-Test Showing Where Aspirations Vary Significantly with Political Affiliation

	Mean Aspiration (1 = "strongly disagree"; 3 = "neither agree nor disagree"; 5 = "strongly agree")							
	Democrat (D)	**Republican (R)**	**Independent (I)**	**Other**	**Total**	**D – R**	**t (R-D)**	**p**
at-will employment	2.060 (1.266) (367)	2.769 (1.506) (134)	2.252 (1.380) (317)	2.304 (1.533) (46)	2.253 (1.381) (864)	-.709	-5.26	< .001***
reporting felonies	3.372 (1.336) (366)	3.784 (1.235) (134)	3.072 (1.364) (319)	3.217 (1.381) (46)	3.317 (1.353) (865)	-.412	-3.12	.002**
death penalty	2.785 (1.488) (367)	3.910 (1.277) (134)	3.063 (1.446) (319)	2.696 (1.474) (46)	3.057 (1.490) (866)	-1.126	-7.77	< .001***
environmental rights	4.202 (0.911) (366)	3.321 (1.295) (134)	3.956 (1.101) (319)	3.870 (1.470) (46)	3.957 (1.121) (865)	.881	8.49	< .001***
state income tax	3.003 (1.436) (367)	2.261 (1.360) (134)	2.527 (1.382) (319)	2.609 (1.542) (46)	2.692 (1.436) (866)	.742	5.19	< .001***
texting and driving	1.379 (0.909) (367)	1.448 (0.922) (134)	1.415 (0.865) (318)	1.696 (1.245) (46)	1.420 (0.917) (865)	-.069	-0.75	.454
handgun waiting period	4.578 (0.822) (367)	3.737 (1.387) (133)	4.126 (1.255) (318)	3.804 (1.529) (46)	4.241 (1.176) (864)	.841	8.28	< .001***
medmal damage caps	2.605 (1.312) (367)	3.142 (1.426) (134)	2.790 (1.386) (319)	2.935 (1.272) (46)	2.774 (1.366) (866)	-.537	-3.96	< .001***
abortion waiting period	2.084 (1.310) (367)	3.567 (1.395) (134)	2.339 (1.466) (319)	2.261 (1.389) (46)	2.417 (1.474) (866)	-1.483	-11.02	< .001***
drone regulation	3.199 (1.208) (367)	3.075 (1.254) (134)	3.182 (1.220) (319)	2.935 (1.389) (46)	3.159 (1.230) (866)	.124	1.01	.314

APPENDIX H: COGNITIVE CONGRUENCE



APPENDIX I: COMPARISON OF MEAN SUPPORT FOR RULES DEPENDING UPON WHETHER THE PARTICIPANT THOUGHT THE RULE WAS THE LAW ($MEAN_{YES}$) OR THOUGHT THE RULE WAS NOT THE LAW ($MEAN_{NO}$)

Issue	**$Mean_{Yes}$ (SD)**	**$Mean_{No}$ (SD)**	**$Mean_{Yes}$ - $Mean_{No}$**	**t-score**	**p**[163]
environmental rights	4.305 (.777)	3.832 (1.197)	.473	5.54	< .001***
medmal damage caps	2.678 (1.305)	2.885 (1.425)	-.207	-2.23	.026*
at-will employment	2.506 (1.434)	1.885 (1.213)	.621	6.63	< .001***
death penalty	3.137 (1.497)	2.845 (1.457)	.291	2.60	.009**
abortion waiting period	2.524 (1.549)	2.361 (1.431)	.162	1.54	.124
drone deliveries	3.444 (1.100)	3.024 (1.263)	.420	4.80	< .001***
handgun waiting period	4.333 (1.093)	4.036 (1.317)	.297	3.47	<.001***
reporting felonies	3.659 (1.260)	2.760 (1.316)	.899	10.04	< .001***
state income tax	3.327 (1.291)	1.739 (1.068)	1.588	19.00	< .001***
texting and driving	1.76 (1.097)	1.340 (0.851)	.416	5.31	< .001***

163. The *p* value here represents the probability that the survey results were a product of chance, rather than representative of an actual difference between participants who indicated that the rule already existed in their state ("true"), and those that indicated it did not ("false").

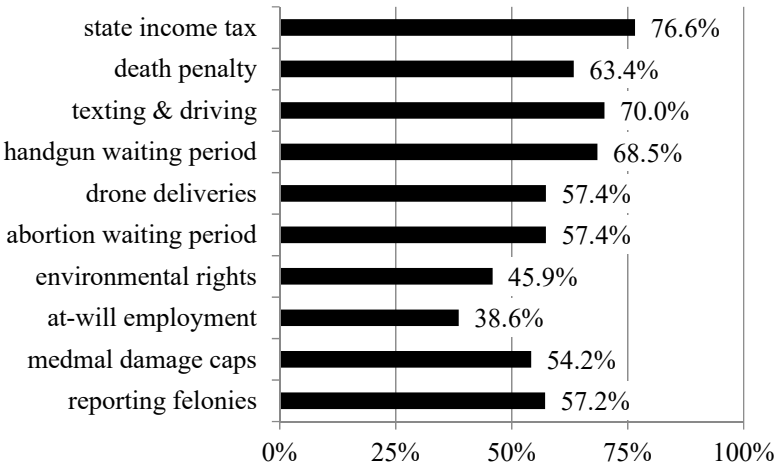
APPENDIX J: COMPARING EFFECT SIZES OF ACTUAL RULES AND NORMATIVE ASPIRATIONS ON PARTICIPANTS' SUBJECTIVE BELIEFS ABOUT THE LAW

Issue	**Correlation Rule/Belief (effect size)**	**Significance**	**Correlation Belief/Asp.**[164] **(effect size)**	**Significance**	**Which Better Predicts Belief?**
at-will employment	r = 0.14 (small)	< 0.001***	r = -0.22 (small)	< 0.001***	aspiration
reporting felonies	r = 0.06 -	0.086	r = -0.32 (medium)	< 0.001***	aspiration
death penalty	r = 0.39 (medium)	< 0.001***	r = -0.09 (small)	0.009*	legal rule
environmental rights	r = 0.07 (small)	0.043*	r = -0.19 (small)	< 0.001***	aspiration
income tax	r = 0.67 (large)	<0.001***	r = -0.54 (large)	< 0.001***	legal rule
texting and driving	r = 0.26 (small/medium)	< 0.001***	r = -0.18 (small)	< 0.001***	legal rule
handgun waiting period	r = 0.30 (medium)	< 0.001***	r = -0.12 (small)	0.001***	legal rule
medmal damage caps	r = 0.04 -	0.234	r = 0.08 (small)	0.026*	aspiration
abortion waiting period	r = 0.30 (medium)	< 0.001***	r = -0.052 -	0.124	legal rule

164. Negative correlations are expected here because higher aspirations are in favor of the rule.

APPENDIX K: REPRESENTATIVENESS

% of Respondents Whose Law Did Not Conflict with Aspirations



One-way ANOVA of Accuracy by State

Issue	SSR	SSE	DF	MSR	MSE	F	P[165]
abortion waiting period	27.40	173.83	5/862	5.48	0.202	27.18	< .001***
at-will employment	6.443	198.24	5/863	1.29	0.230	5.61	< .001***
death penalty	11.13	142.30	5/863	2.23	0.165	13.50	< .001***
drone deliveries	3.132	189.31	5/862	0.626	0.220	2.85	.015**
environmental rights	38.00	164.94	5/863	7.60	0.191	39.76	< .001***
handgun waiting period	21.25	165.51	5/862	4.25	0.192	22.14	< .001***
income tax	12.32	111.44	5/863	2.46	0.130	18.91	< .001***
medmal damage caps	1.738	213.51	5/862	0.348	0.248	1.40	.221
reporting felonies	11.98	204.58	5/863	2.40	0.237	10.10	< .001***
texting and driving	53.29	119.98	5/863	10.66	0.139	76.67	< .001***
total	109.8	1966.7	5/863	21.96	2.28	9.64	< .001***

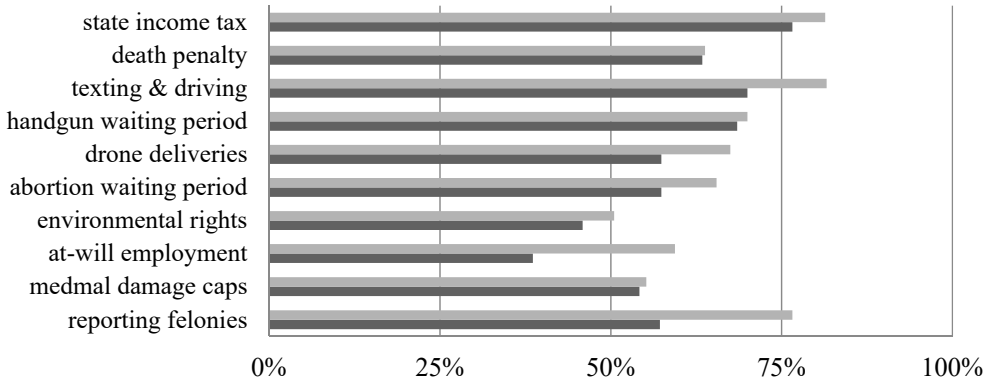
Sum of Squared Regression (SSR); Sum of Squares of Error (SSE); Degrees of Freedom (DF); Mean Squared Regression (MSR); Mean Squared Error (MSE); *F*-Statistic (F); *p* value (P).

165. This one-way ANOVA tested whether people in different states had significantly different chances of correctly identifying their state's laws.

T-Test Comparing Mean Aspirations in States Where the Statement Accurately Reflected the Law (M_{Yes}) and Did Not Reflect the Law (M_{No})

Issue	M_{Yes} (SD)	M_{No} (SD)	M_{Yes} - M_{No}	t-score	P
at-will employment	2.274 (1.379)	2.068 (1.427)	.205	1.21	.225
reporting felonies	3.409 (1.349)	3.279 (1.356)	.130	1.25	.210
death penalty	3.101 (1.480)	2.867 (1.525)	.234	1.85	.065^{+}
environmental rights	3.967 (1.145)	3.952 (1.112)	.016	0.19	.853
income tax	3.257 (1.347)	2.157 (1.310)	1.101	12.20	< .001***
texting and driving	1.407 (.826)	1.424 (.951)	-.018	-0.26	.798
handgun waiting period	4.360 (1.065)	4.016 (1.331)	.344	4.14	< .001***
medmal damage caps	2.738 (1.359)	2.919 (1.383)	-.181	-1.56	.118
abortion waiting period	2.421 (1.463)	2.419 (1.490)	.0015	0.015	.988

APPENDIX L: COGNITIVE CONGRUENCE V. REPRESENTATIVENESS



	reporting felonies	medmal damage caps	at-will employment	environmental rights	abortion waiting period	drone deliveries	handgun waiting period	texting & driving	death penalty	state income tax
Cognitive Congruence	76.60%	55.20%	59.40%	50.50%	65.50%	67.50%	70.00%	81.60%	63.80%	81.40%
Representativeness	57.20%	54.20%	38.60%	45.90%	57.40%	57.40%	68.50%	70.00%	63.40%	76.60%

APPENDIX M: PERCENTAGE OF RESPONDENTS INDICATING PHANTOM OR RECOGNIZED REPRESENTATION AND MISREPRESENTATION, BY TOPIC

Issue	**Recognized Representation**	**Phantom Representation**	**Recognized Misrepresentation**	**Phantom Misrepresentation**
at-will employment	31.5% (274)	27.8% (242)	33.6% (292)	7.0% (61)
reporting felonies	46.1% (401)	30.5% (265)	12.3% (107)	11.0% (96)
death penalty	55.0% (478)	8.7% (76)	27.8% (242)	8.4% (73)
clean environment	32.8% (285)	17.7% (154)	36.4% (316)	13.1% (114)
income tax	72.5% (630)	8.9% (77)	14.5% (126)	4.1% (36)
texting and driving	63.1% (548)	18.5% (161)	11.5% (100)	6.9% (60)
handgun waiting period	55.0% (478)	15.0% (130)	16.6% (144)	13.5% (117)
medmal damage caps	36.1% (314)	19.1% (166)	26.7% (869)	18.1% (157)
abortion waiting period	46.8% (407)	18.6% (162)	23.9% (208)	10.6% (92)
drone deliveries	50.6% (440)	16.9% (147)	25.7% (223)	6.8% (59)
total (mean)	48.0%	22.9%	18.2%	9.5%
range	31.5% – 72.5%	8.9% – 27.8%	11.5% – 36.4%	4.1 % – 18.1%