What Jurors Want to Know: Motivating Juror Cognition to Increase Legal Knowledge & Improve Decisionmaking

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WHAT JURORS WANT TO KNOW: MOTIVATING JUROR COGNITION TO INCREASE LEGAL KNOWLEDGE & IMPROVE DECISIONMAKING

SARA GORDON*

What do jurors want to know? Jury research tells us that jurors want to understand the information they hear in a trial so they can reach the correct decision. But like all people, jurors who are asked to analyze information in a trial—even jurors who consciously want to reach a fair and accurate verdict—are unconsciously influenced by their internal goals and motivations. Some of these motives are specific to individual jurors; for instance, a potential juror with a financial interest in a case would be excluded from the jury pool. But other motivations, like the motive to understand the law and to reach an accurate verdict, are core social motives that influence the cognition of all jurors. Although those motives may be less obvious than those of the juror with a financial stake in the case, they still have a profound influence on how jurors learn the law and interpret evidence, and we can use them to better motivate jurors to efficiently learn the law and to think carefully about how the law will apply to the facts they will see in a trial.

A significant body of legal literature has examined jurors’ use and understanding of the substantive law they receive in jury instructions, and many scholars have recommended methods to improve juror comprehension of instructions. This Article is the first law journal article to take that analysis a step further and consider all of the major scientific studies that examine motivated cognition and apply them to jury decisionmaking. Because much of juror cognition is motivated, we can harness the power of this motivated cognition to further increase juror comprehension of the law and improve juror decisionmaking.

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* Associate Professor of Law, Boyd School of Law, UNLV. Thank you to Linda Berger, Linda Edwards, Michael Higdon, Thom Main, Ngui Pindell, Elizabeth Pollman, Terry Pollman, and the participants in the 2013 West Coast Rhetoric Scholarship Workshop for their helpful comments and suggestions. Thanks also to Chad Schatzle for his excellent research assistance and to the editors of the Tennessee Law Review for their excellent comments and editorial assistance.
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INTRODUCTION

“It’s not that I’m so smart, it’s just that I stay with problems longer.”

-Albert Einstein

In a study at the University of Minnesota, female college students participated in what they were told was a “dating study.”\(^1\) All of the women received certain information about the dating preferences of an attractive man named Tom Ferguson.\(^2\) They were told that Tom had examined the personality files of 50 other women, and based on those women’s personal characteristics, had decided which of them he wanted to date.\(^3\) The women were then asked to decide, based on Tom’s decisions, which characteristics were most

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2. Id. at 27.
3. The complete list of possible attributes included having a sense of humor, being outgoing, being jealous, being athletic, being liberal, having high intelligence, and being attractive. Id.
important to Tom in a partner. Some of the women believed they would have a date with Tom after they completed the study, and some did not. The women who were motivated to be accurate—those to whom the information was important because they expected to date Tom—paid closer attention to the information in the personality files, thought more carefully about their decisions, and used more complex and more efficient assessment strategies when deciding what Tom was looking for in a partner. In other words, because they wanted to know more about Tom, they worked harder to make good decisions.

Like the women in the dating study, jurors who are asked to analyze information in a trial—even jurors who consciously want to reach a fair and accurate verdict—are unconsciously influenced by their own internal goals and motivations. Some of these motives are specific to individual jurors; for instance, a potential juror with a financial interest in a case would be excluded from the jury pool. But other motivations, like the motive to understand the law and to reach an accurate verdict, are core social motives that influence the cognition of all jurors. Although those motives may be less obvious than those of the juror with a financial stake in the case, they still have a profound influence on how jurors learn the law and interpret evidence.

While jurors have traditionally been seen as “blank slates” who could be instructed to base decisions solely on the permissible evidence and the appropriate legal standard, the social science research on both jurors and other human decisionmakers does not support this view. Instead, as with all people, motivated cognition affects the way jurors acquire knowledge and make decisions about information. Because motivations are pervasive and

4. Id.
5. Id. at 27, 31.
6. Id. at 31.
7. Id. Both groups of subjects used statistically comparable amounts of time in assessing the information, but those in the “dating” group employed more complex strategies during that time. Id.
largely unconscious, we cannot eliminate their influence on jury decisionmaking. Moreover, it would be impossible to even catalogue the huge variety of ideological beliefs and worldviews that influence and motivate jury verdicts, nor can we expect to fully mitigate jurors’ preconceptions on their understanding of the law and evaluation of evidence. All of these things motivate jurors’ decisions, and like most biased reasoning, they cannot be severed from jurors’ interpretation and processing of evidence. What we can do, however, is harness the power of motivated cognition to motivate jurors to learn the law and use it to make better decisions about the evidence. Specifically, I propose that we use insights from studies of motivation and goal-setting to motivate jurors to understand the law, to be accurate in that understanding, and to persist in thinking about the law until they reach a good decision.

Part I of this Article discusses the use of jury instructions as the primary vehicle for juror education about the law, as well as the persistent lack of juror comprehension of those instructions, even when the instructions are rewritten according to psycholinguistic principles. This Part also discusses the importance of the representative jury in the American legal system and why that system is not undermined by more extensive juror education about relevant legal concepts. This Article does not suggest that we should abandon our representative system, but instead recommends that courts use principles of motivation and goal setting to help lay juries develop greater knowledge of the applicable law. Because motivations have such a profound impact on knowledge acquisition and information processing, Part II of this Article will examine the different types of core social motivations that are most relevant to juror comprehension and decisionmaking, specifically the motives to understand and be accurate, and the motive for closure. Part III reviews the social science literature on knowledge and performance goals and deliberative and implemental mindsets to explain how jurors can be motivated to understand the law needed to interpret facts in a trial and to persist in thinking about the law until they reach a decision. Part IV recommends methods to motivate jurors to learn and understand the law before reaching a verdict. Educational psychology principles inform this discussion and help illuminate how to improve juror comprehension of substantive and procedural laws, thereby improving decisionmaking.

I. **LOW JUROR COMPREHENSION OF THE LAW AND WHY MORE EXTENSIVE JUROR EDUCATION IS NOT AT ODDS WITH A REPRESENTATIVE JURY SYSTEM**

The right to a jury trial is a fundamental part of the American democratic ethos, and much of the trust we place in jurors is based on our belief that they will infuse the decisionmaking process with a common sense approach and community values. In addition to basing their decisions on common sense, however, we expect that jurors’ decisions will be legally warranted and internally consistent. We implicitly assume that by the end of a trial, jurors understand the law they will be expected to apply to the evidence, or at least that their understanding will be good enough to reach the “right” verdict. The social science research on jury comprehension of jury instructions tells us otherwise, however, with comprehension rates sometimes no better than chance. Furthermore, the research consistently shows that if jurors do not understand the law—and as laypeople, they typically have little or incorrect knowledge of the law when they enter the courtroom—they will rely on preexisting stereotypes, biases, and incorrect expectations of what the law is. In other words, jurors often know just enough about the law to be dangerous but not enough to reach a decision on the facts that is well-supported by the relevant law.

Because juries are typically composed of lay people with no special legal training or background, jurors must first be educated about the applicable substantive law and procedural rules before they can reach a decision. This education is typically accomplished by giving the jury written instructions, which are culled from the applicable statutes and case law and drafted by attorneys or

13. VALERIE P. HANS & NEIL VIDMAR, JUDGING THE JURY 31 (1986); see also DAN SIMON, IN DOUBT: THE PSYCHOLOGY OF THE CRIMINAL JUSTICE PROCESS 184 (2012) (stating that common sense is “[a] primary justification cited for entrusting jurors with the task of deciding criminal verdicts”).
15. See id. at 185.  
16. See generally id. (citing various studies).  
18. See generally Gordon, supra note 17 (discussing the impact of schemas on juror comprehension and use of jury instructions).
advisory committees.\textsuperscript{19} Instructions tell jurors about the applicable law and give them a mechanism to interpret the facts they have seen in a trial; they are meant to provide the entirety of substantive legal knowledge jurors need to make a decision in a case.\textsuperscript{20} Jurors are given instructions throughout the trial, but the most extensive instructions on substantive law are generally given at the end of a trial.\textsuperscript{21} Instructions, therefore, are the crucial link between how jurors perceive and understand the facts they are told and how they use those facts and the law to reach a verdict; jurors, however, do not typically receive this legal education until after they have seen the evidence.\textsuperscript{22} When jurors do finally receive instructions, the instructions are often full of language taken from statutes and cases. While the instructions are meant to teach jurors the relevant law, they are not typically drafted with the jurors’ education in mind, nor do they generally offer much guidance to jurors for applying that law to the facts in order to reach a decision.

Because the rules of evidence limit inquiry into the jury’s decisionmaking process, it can be difficult to determine the extent to which jurors understand the law they receive in jury instructions.\textsuperscript{23} However, research in social science has consistently shown that

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\textsuperscript{20} Different types of instructions address the different things the jury is asked to consider. Some instructions tell jurors how to evaluate evidence and weigh the credibility of witnesses, some explain the burden of proof, and others provide definitions and elements of crimes or claims. NEIL VIDMAR & VALERIE P. HANS, AMERICAN JURIES: THE VERDICT 161 (2007).

\textsuperscript{21} There are very few laws regulating the use and timing of jury instructions, and the judge’s authority to manage a trial effectively allows for instructions at any point. Neil Cohen, The Timing of Jury Instructions, 67 TENN. L. REV. 681, 684 (1999–2000).

\textsuperscript{22} See generally HON. GREGORY E. MIZE (RET.) ET AL., THE STATE-OF-THE-STATES SURVEY OF JURY IMPROVEMENT EFFORTS: A COMPENDIUM REPORT 36 (2007) [hereinafter State of the States Survey], available at http://www.ncsc-jurystudies.org/~/media/Microsites/Files/CJS/SOS/SOSCompendiumFinal.ashx. While some states do require some type of pre-instruction, most leave the decision to the judge’s discretion, though the survey results suggested that “many judges who pre-instructed their juries view this technique as part of a set of jury trial practices; those who did so were also significantly more likely to permit jurors to take notes, to submit questions to witnesses, to permit juror discussions before deliberations, to deliver final instructions before closing arguments, and to provide jurors with a written copy of the instructions.” Id. at 37.

\textsuperscript{23} FED. R. EVID. 606(b).
\end{flushleft}
jurors have considerable difficulty understanding instructions, and several studies have found that jurors typically understand a little more than half of the instructions they receive. Much of this research has focused on improving juror comprehension by rewriting the instructions using psycholinguistic principles to improve vocabulary, syntax, and organization, making them simpler and more comprehensible to jurors. Pattern and standard instructions, particularly those rewritten according to psycholinguistic principles, have improved juror comprehension, often by 20 to 30%. Because jury instructions can form a basis for legal arguments on appeal, however, many of these pattern instructions have emphasized technical accuracy, sometimes overlooking the primary purpose of the instructions: to teach jurors the law. And as one author notes, “no matter how technically accurate an instruction is, it fails in its

24. See, e.g., Phoebe C. Ellsworth & Alan Reifman, Juror Comprehension and Public Policy: Perceived Problems and Proposed Solutions, 6 PSYCHOL. PUB. POL’Y & L. 788 (2000); Amiram Elwork et al., Juridic Decisions: In Ignorance of the Law or in Light of It?, 1 LAW & HUM. BEHAV. 163 (1977); David U. Strawn & Raymond W. Buchanan, Jury Confusion: A Threat to Justice, 59 JUDICATURE 478 (1976). In one empirical study of juror confusion, researchers found that jurors understood less than half the content of the tested instructions. Walter W. Steele, Jr. & Elizabeth G. Thornburg, Jury Instructions: A Persistent Failure to Communicate, 67 N.C. L. REV. 77, 78 (1988). In another, despite instructions to the contrary, 43% of potential jurors believed that circumstantial evidence was of no value, and 23% believed that when faced with equal evidence of a defendant’s guilt or innocence, the defendant should be convicted. Id. at 84–85.

25. See, e.g., Robert P. Charrow & Veda R. Charrow, Making Legal Language Understandable: A Psycholinguistic Study of Jury Instructions, 79 COLUM. L. REV. 1306, 1316 (1979) (54%); Phoebe Ellsworth, Are Twelve Heads Better Than One?, 52 LAW & CONTEMP. PROBS. 205, 219 (1989) (“[O]nly half of the references to the law were accurate, even when credit was given for partial accuracy. One-fifth of the references were clearly, seriously wrong.”); Amiram Elwork et al., Toward Understandable Jury Instructions, 65 JUDICATURE 432, 436 (1981–82) (51%).

26. The study of psycholinguistics provides insights about the linguistic reasons underlying problems of language processing and comprehension. See Charrow & Charrow, supra note 25, at 1308; see also Robert D. Charrow, Joel D. Lieberman & Bruce D. Sales, What Social Science Teaches Us About the Jury Instruction Process, 3 PSYCHOL. PUB. POL’Y & L. 589, 623–27 (1997); Elwork et al., supra note 24, at 165–69.


primary purpose if jurors are unable to use it to deliberate and determine verdicts.”

Furthermore, these reforms do not address the fact that even if jurors understand the language and syntax used in instructions, this does not mean that they necessarily understand the underlying substantive law, and such an understanding is crucial to a juror's ability to analyze the facts in a trial. Jury research shows that jurors have difficulty understanding instructions about both procedural and substantive legal concepts, and the problem extends to civil and criminal trials. For example, one study found that even where reasonable doubt is defined in jury instructions, 69% of people who had previously served as jurors incorrectly believed that they had to be 100% sure of the defendant’s guilt before they found him guilty. Substantive instructions pose a similar problem. In the same study, two-thirds of instructed jurors incorrectly thought that physical injury was necessary to convict for assault. Jurors also have difficulty understanding a variety of concepts related to civil litigation including negligence, liability, and damages. Finally, and

29. Id. at 404.
30. See generally id. (discussing the impact jury instructions have on jurors' understanding, and the confusion that may result from the instructions).
31. Id. at 414. Reasonable doubt was defined as follows:

A reasonable doubt is a fair, honest doubt growing out of the evidence or lack of evidence in this case or growing out of any reasonable or legitimate inferences drawn from the evidence or the lack of evidence. It is not merely an imaginary doubt or a flimsy, fanciful doubt or a doubt based upon the mere possibility of the innocence of the defendant or a doubt based upon sympathy, but rather it is a fair, honest doubt based upon reason and common sense. It is a state of mind which would cause you to hesitate in making an important decision in your own personal life. By stating that the prosecution must prove guilt beyond a reasonable doubt, I mean there must be such evidence that causes you to have a firm conviction to a moral certainty of the truth of the charge here made against the defendant.

Id. at 436.
32. See, e.g., id. at 423 (finding that jury instructions for assault did not improve comprehension).
33. Id. at 423.
34. See, e.g., Edith Greene & Michael Johns, Jurors’ Use of Instructions on Negligence, 31 J. APPLIED SOC. PSYCHOL. 840, 840 (2001) (finding 64% overall comprehension of civil negligence instructions); Reid Hastie et al., A Study of Juror and Jury Judgments in Civil Cases: Deciding Liability for Punitive Damages, 22 L. & HUM. BEHAV. 287, 295 (1998) (finding that the average score on a comprehension test of jury instructions on liability was 9%).
most distressingly, capital instructions in death penalty trials are especially hard for jurors to understand. When study participants were read standard California death penalty instructions and asked to define the concepts of aggravation and mitigation, 21% of participants either incorrectly defined or did not define aggravation, and 47% incorrectly defined or did not define mitigation.

Given the significant role jurors play as decisionmakers in our legal system, this lack of comprehension is troubling. Notwithstanding the persistently low comprehension rates, however, some scholars make the point that jurors do in fact understand most of the evidence and applicable law they see in trials, and that judges agree with jury verdicts in most cases. One study found a 78% agreement rate between judges and juries, which the author noted is almost as good as the 79% or 80% agreement rate among judges making sentencing decisions on custody cases. But while this observation is, of course, important when comparing the decisionmaking of judges and juries, as Professor Dan Simon notes, “it hardly speaks to the actual diagnosticity of either one.”

Moreover, law is a domain in which knowledge about the domain confers competence, and jurors would benefit from additional training before being asked to reach a decision. In other domains, competence is not wholly dependent on underlying knowledge. For instance, a person could competently dunk a basketball without knowing the rules or the history of basketball, but the same is not true of the law. Jurors without legal knowledge or with incorrect legal knowledge could certainly make a decision, but that decision is not likely to be “correct” in that it is supported by the relevant law.

Furthermore, recent research on metacognition and self-assessment

35. Lieberman, supra note 27, at 136 (citing various studies).
39. SIMON, supra note 13, at 203.
40. See generally Justin Kruger & David Dunning, Unskilled and Unaware of It: How Difficulties in Recognizing One’s Own Incompetence Lead to Inflated Self-Assessments, 1 PSYCHOL. 30, 44 (2009) (noting that in many domains of life, success depends on knowledge).
41. Id.
42. See, e.g., Diamond, supra note 17, at 429–30 (discussing various irrelevant factors that may influence a juror’s decision).
has found that people who are unskilled in “intellectual domains” like the law suffer from dual burdens: first they reach incorrect conclusions and make poor choices, and second, they are unaware of their own lack of skill in the domain.\textsuperscript{43}

Moreover, most of the empirical research shows that while jurors perform competently in many cases, when problems do arise, it is usually a problem with the form or manner in which information is presented to jurors.\textsuperscript{44} Because jurors must understand what the law is before they can process it thoughtfully and apply it to the facts they see in a trial, we can improve juror performance by improving the ways we present the law to jurors.\textsuperscript{45} Common sense tells us that jurors would make better decisions if given better training about the law, and studies from educational and social psychology confirm that this knowledge acquisition should be a major component of the jury’s task.\textsuperscript{46} As Professor Joel Lieberman notes, rewriting instructions is only part of the solution.\textsuperscript{47} To make additional improvements, we should also consider recent advancements in social, cognitive, and educational psychology, especially those approaches that allow jurors to study and learn the law they will apply in a trial.\textsuperscript{48}

Finally, more extensive juror education is not at odds with the idea of a representative jury because the dual goals of a representative jury—that of a “jury of peers” composed of a “reasonable cross-section” of the community\textsuperscript{49}—are both concepts

\textsuperscript{43} Kruger & Dunning, supra note 40, at 44.

\textsuperscript{44} JURY TRIAL INNOVATIONS 7 (G. Thomas Munsterman et al. eds., 1997); see, e.g., Joe S. Cecil et al., Citizen Comprehension of Difficult Issues: Lessons from Civil Jury Trials, 40 AM. U. L. REV. 727 (1991).

\textsuperscript{45} Larry Heuer & Steven D. Penrod, Instructing Jurors: A Field Experiment with Written and Preliminary Instructions, 13 L. & HUM. BEHAV. 409, 409 (1989) (finding that pre-instructions help jurors follow legal guidelines in decisionmaking and increase juror satisfaction); JURY TRIAL INNOVATIONS, supra note 44, at 7; see Haney & Lynch, supra note 36, at 427; see also Elwork et al., supra note 24, at 163 (finding that pre-instructions gave jurors a greater opportunity to focus their attention on relevant evidence and remember it).

\textsuperscript{46} See generally Honorable B. Michael Dann, “Learning Lessons” and “Speaking Rights”: Creating Educated and Democratic Juries, 68 IND. L.J. 1229, 1244 (1993) (“[T]he emphasis in the classroom is plainly upon learning. So it is, or, as we have seen, should be, in the courtroom for jurors . . . . The aim of the teacher is to impart knowledge and understanding; likewise with trial lawyers and judges.”); see also discussion infra Part III.B.

\textsuperscript{47} Lieberman, supra note 27, at 149.

\textsuperscript{48} Id.

\textsuperscript{49} See Thiel v. S. Pac. Co., 328 U.S. 217, 220 (1946) ("The American tradition of trial by jury, considered in connection with either criminal or civil proceedings, necessarily contemplates an impartial jury drawn from a cross-section of the
defined by how we compose juries, and not how we prepare those sitting juries to best evaluate the evidence they see in a trial. The jury of peers is intended to give defendants a fair trial by including in the jury a representative number of people who share his “cultural, linguistic, ethnic, or, possibly, socioeconomic circumstances.” In contrast, the reasonable cross-section requirement ensures that members of the jury are drawn from all segments of the community in which the trial occurs.

Of course, the representative jury is based on the premise that the ordinary citizen is capable of sorting out the details of most lawsuits. Furthermore, some research suggests that representative juries composed of people with different backgrounds and experiences promote accurate fact-finding because such a group is likely to hold diverse perspectives on the evidence, engage in more thorough debate, and more closely evaluate the facts. As Vidmar and Hans note, “The idea of a representative jury is a compelling one. A jury of people with a wide range of backgrounds, life experiences, and world knowledge will promote accurate fact-finding...” But we do not neutralize the benefits of this range of perspectives by informing those perspectives with the proper legal community.

50. The representative jury is a fundamental part of the American legal system stemming from the Magna Carta, which required that “charges against barons should be heard by other barons, their ‘peers,’ rather than the king.” Vidmar & Hans, supra note 20, at 66. And while women and minorities were historically excluded from jury service, and service was limited to landowners until the second half of the twentieth century, our legal system eventually moved to one of a jury of peers drawn from a cross-section of the community. See id. at 66, 74; James Oldham, Trial by Jury: The Seventh Amendment and Anglo-American Special Juries 176 (2006).

51. Oldham, supra note 50, at 176.

52. This second requirement argues against juries with special skills or special qualifications, although there are examples of such “special juries” composed of citizens with relevant specialized knowledge that will help them to more efficiently make decisions about cases. Vidmar & Hans, supra note 20, at 68. The earliest known special jury convened in 1351, when a jury composed of cooks and fishmongers decided the case of a defendant charged with selling bad food. Another special jury was the “jury of matrons,” all-woman juries assembled in cases in which a convicted woman awaiting execution “pleaded her belly,” or claimed to be pregnant. The jury of matrons decided the truth of the claim and determined whether the execution should be stayed until the child was born. Id. For an excellent discussion of the historical development and current status of the special jury, see Oldham, supra note 50, at 176.


54. Id.
rules and standards. And while it may be true that too much expertise might actually hinder decisionmaking, this Article does not argue that we should increase jurors’ expertise to that of the lawyers or judges in the case, a solution that is neither practical nor consistent with the ideals of a representative jury. Instead, we should give jurors a basic legal education of the concepts they will be expected to apply to the facts beyond that which they receive from typical jury instructions.

Unlike judges and lawyers, who will have well-developed knowledge about the legal concepts in a trial, jurors will often have little legal knowledge and limited exposure to legal concepts, most of which is gained through television and movies. The judges and lawyers are legal “experts” who have an understanding of the law that is complex, organized, and accessible, resulting in more thoughtful judgment and better decisionmaking.

55. Kiser, supra note 37, at 22 (noting that when lawyers achieve a certain level of expertise, they actually become worse at evaluating cases because they become so rooted in their own ideas about what the law is and should be). Indeed, Kiser notes that attorneys, like other highly successful people, “deflect criticism, rarely change their opinions, [and] resist feedback . . . [they] lack self-awareness and resist behavioral changes required to improve their problem-solving skills.” Id. at 285.

56. Often referred to as the “CSI Effect,” much has been made in the law and media of the enormous impact fictional accounts of the legal system have on the average citizen’s understanding of the law and the courtroom. See, e.g., Conny L. McNeely, Perceptions of the Criminal Justice System: Television Imagery and Public Knowledge in the United States, 3 J. CRIM. JUST. & POP. CULT. 1 (1995); Victoria S. Salzmann & Philip T. Dunwoody, Prime-Time Lies: Do Portrayals of Lawyers Influence How People Think About the Legal Profession?, 58 SMU L. REV. 411 (2005) (noting that “movies change perceptions of the legal process, and that process then conforms to our expectations”); Jeffrey Toobin, The CSI Effect: The Truth About Forensic Science, THE NEW YORKER (May 7, 2007), http://www.newyorker.com/reporting/20070507fa_fact_toobin (discussing the unrealistic expectations that people may develop as a result of exposure to television).

57. Susan T. Fiske & Shelley E. Taylor, Social Cognition 173–74 (1984). Experts have better developed and more mature “schemas” for legal concepts, which are more complex and more organized than the immature schemas of novices. Id. In one study examining how schemas differ between novices and experts, researchers compared the approaches of first-year law students (novices) and civil lawyers (experts) to two tasks, a card-sorting task and a concept-elaboration task. See Fleurie Nievelstein et al., Expertise-Related Differences in Conceptual and Ontological Knowledge in the Legal Domain, 20 EUR. J. COGN. PSYCHOL. 1043, 1047 (2008). The card-sorting task asked participants to sort cards into groups based on different legal concepts and was intended to provide insight into “differences in the organisation of conceptual knowledge of individuals at different levels of expertise.” Id. The concept-elaboration task asked participants to name everything they knew about a particular
jurors are “novices” who lack mental frameworks for the law and often have incomplete and sometimes incorrect legal knowledge. Knowledge becomes more structured and more accessible with increasing expertise. Those with greater knowledge and expertise are therefore better able to moderate inconsistencies and to make more focused judgments and decisions. As Fiske and Taylor note, “all other things being equal, greater complexity moderates judgment. The more variety one has encountered, the more complex the issues, the less clear-cut it all seems, and the less extreme one’s judgment.”

Although the egalitarian ideal of a jury composed of a cross-section of the community at first seems to argue against juries with special training or skills, there are examples of these kinds of “special juries” composed of ordinary citizens with relevant specialized knowledge. The earliest known special jury was formed in 1351, when a jury of cooks and fishmongers decided the case of a defendant charged with selling bad food. Another well-known form of the special jury was the “jury of matrons,” all-woman juries assembled in cases in which a convicted woman awaiting execution “pleaded her belly,” or claimed to be pregnant. The jury of matrons decided the truth of the claim and whether the execution should be stayed until the child was born. Furthermore, using experts to

topic in a short period of time (two to three minutes) and was intended to provide insight into the participants’ depth of knowledge about the legal concepts and any associations they made with other concepts. The experts interpreted the two tasks more efficiently and effectively than the novices who lacked mental frameworks for the law. For example, in the card-sorting task, the experts used more central concepts when clustering concepts, while novices ordered their concepts more randomly. In the concept-elaboration task, experts used more legal definitions in their explanations of a particular concept, including examples from cases, while novices used more everyday examples. (noting that, while the use of special juries was fairly common in England in the 1700s, their use declined and was abolished in 1949). While half of American states have at some point had some form of special jury statute, today only Delaware has a specific statute allowing for special juries in complex cases. (see, e.g., Morris S. Arnold, A Historical Inquiry into the Right to Trial by Jury in Complex Civil Litigation, 128 U. PA. L. REV. 829 (1980); Patrick Devlin, Jury
resolve disputes outside of the jury system has an extensive history in the United States, including the use of legal experts as arbitrators, administrative judges, and specialty court judges.  

Abandoning the representative jury system entirely in favor of a system of special juries of experts is an extreme solution and one that is unlikely to find broad support in the courts. Furthermore, there are benefits to a representative jury that would be lost in such a system. A compromise position, therefore, is a representative system that attempts to better educate lay jurors to increase their knowledge of the relevant legal concepts, but without abandoning the many benefits those lay jurors bring to the evaluation of evidence. Because so much cognition is motivated, we can come closer to achieving this ideal by motivating jurors to learn and understand the law and to think carefully about how the law will apply to the facts they will see in a trial. By focusing on jurors’ knowledge acquisition and development, we can develop jurors’ legal knowledge and, in turn, make their decisionmaking processes more efficient, flexible, and legally accurate.

Although extensive training in the law is not possible given the time constraints of a typical trial, we can draw upon insights from studies of motivation and goal setting to motivate jurors to efficiently learn the law that will apply to the facts in a trial. We can do this by framing the jurors’ task with knowledge goals, and by teaching jurors the law before they hear about the facts to help them maintain a deliberative mindset. These things can help increase jurors’ motives to understand and be accurate, to minimize closure goals, and to refrain from “freezing” their information processing too early. Once we understand how to harness the power of motivated

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Trial of Complex Cases: English Practice at the Time of the Seventh Amendment, 80 COLUM. L. REV. 43, 80 (1980); Kenneth S. Klein, The Myth of How to Interpret the Seventh Amendment Right to a Civil Jury Trial, 53 OHIO ST. L.J. 1005, 1007 (1992). Even in Delaware, it has become exceedingly rare to call a special jury, as many special jury requests are rejected due to insufficient complexity. OLDHAM, supra note 50, at 199. One Delaware court noted that special juries are “contrary to fundamental concepts of jury trial and would substitute a method of selection which is inconsistent with established principles of justice.” Bradley v. A.C. & S. Co., Inc., 1989 WL 70834 (Del. Super. Ct. May 23, 1989). Of course, the “complexity exception” also has its proponents. Judge Richard Posner has stated that he would favor a complexity exception in certain “complex commercial cases.” Jeffrey Cole, Economics of Law: An Interview with Judge Posner, 22 LITIG. 23, 66 (1995). He noted: “[I]t’s unfair really to put people through the task of trying to understand a subject which people of higher education and intellectual attainment spend a lifetime studying with imperfect understanding.” Id. at 67.

66. OLDHAM, supra note 50, at 196 (“The notion of bringing experts into dispute settlement processes makes good common sense and has an extensive history.”).
cognition, we can use insights from the fields of educational psychology and learning theory to increase efficient learning and allow jurors to study and learn the law they will apply in a trial. Specifically, to improve the jurors’ understanding of the law, we can implement a variety of teaching formats to increase learning, permit jurors to ask questions about the facts and the law, and encourage jurors to assess their own learning and to explain the law to themselves through the use of special verdict forms.

II. MOTIVATED COGNITION AND THE CORE SOCIAL MOTIVES THAT INFLUENCE DECISIONMAKING

In the classic study of “motivated cognition,” study participants—students from Dartmouth College and Princeton University—watched film clips from a recent football game between the two schools.67 The game was rough: a Princeton player broke his nose, a Dartmouth player broke a leg, and the referees made several controversial calls throughout the game.68 When study participants watched clips of the game, researchers found that the best predictor of their agreement or disagreement with the referees’ calls was whether the call favored or disfavored the students’ own school.69 For example, Princeton students saw the Dartmouth players make twice as many infractions as they saw Princeton players make and over twice as many infractions as the Dartmouth students saw Dartmouth players make.70

Researchers concluded that what the subjects saw was not just one football game, but “many different games and that each version of the events that transpired was just as ‘real’ to a particular person as other versions were to other people.”71 In other words, the mental state of the subjects didn’t just shape how they interpreted what they saw on the tape, it actually shaped what they saw.72 Professor Dan Kahan describes this type of motivated reasoning as “the unconscious tendency of individuals to process information in a manner that suits some end or goal extrinsic to the formation of accurate beliefs.”73 In other words, the perceiver’s goal motivates her

67. Hastorf & Cantril, supra note 12, at 129.
68. Id.
69. Id.
70. Id. at 130.
71. Id. at 132.
72. Id.; see also Kahan, supra note 8, at 19.
cognition; it directs her mental operations and affects her assessment of empirical evidence.74

Like the college students who saw the game the way they wanted it to be, all people sometimes engage in biased reasoning to bring their beliefs in line with their desires. For example, both opponents and proponents of capital punishment think that studies that confirm their beliefs are more effective than studies that disconfirm their beliefs.75 In that case, people are exhibiting “confirmation bias,” or the tendency of people to favor information that confirms their beliefs or hypotheses.76 Some biased reasoning is driven by stereotypes people have about social categories, though many biases have nothing to do with gender, race, or ethnicity.77 Furthermore, while some bias is explicit (in that people are aware of their own biases), much of the bias that impacts decisionmaking is implicit (in

cognitive processes: strategies for accessing, constructing, and evaluating beliefs.”).

74. Kahan, supra note 8, at 19. In a more recent study, researchers recruited two groups of potential parents, all of whom planned to have children. Anthony Bastardi et al., Wishful Thinking: Belief, Desire, and the Motivated Evaluation of Scientific Evidence, 22 Psychol. Sci. 731, 731 (2011). While all of the parents said they thought kids did best when they were cared for at home, some of the parents planned to stay home with their kids and others planned to use daycare. Id. The parents were then given descriptions of studies comparing home and daycare. Id. The parents who planned to use daycare found the pro-daycare study much more persuasive than the pro-homecare study and the parents who planned to stay home with their kids found the pro-homecare study to be more persuasive. Id. at 731–32. For each set of parents, one study supported what they wanted to be true and therefore had a greater impact on their decisionmaking. Id. As the authors of the study noted, “what people believe to be true and what they wish were true can be quite different.” Id. at 732.

75. See Charles G. Lord et al., Biased Assimilation and Attitude Polarization: The Effects of Prior Theories on Subsequently Considered Evidence, 37 J. Personality & Soc. Psychol. 2098, 2100–01 (1979). Each argument included a description of the design of the study and was followed by criticisms of the study itself and rebuttals of those criticisms. Id. Furthermore, the “net effect of exposing proponents and opponents of capital punishment to identical evidence—studies ostensibly offering equivalent levels of support and disconfirmation—was to increase further the gap between their views.” Id. at 2105.


77. Jerry Kang et al., Implicit Bias in the Courtroom, 59 UCLA L. Rev. 1124, 1128–29 (2012). For example, people tend to judge the likelihood of an event based on how readily they can remember examples of similar instances (the “availability bias”) and they tend to make judgments based on their first reaction gut feelings (the “affect heuristic”). ROBBENNOLT & STERNLIGHT, supra note 76, at 72–75.
that biases are “not consciously accessible through introspection”). And while scholars have suggested ways to reduce bias, we cannot eliminate its influence on juror decisionmaking. But in the same way that human cognition is influenced by preexisting beliefs or cognitive biases, we can also motivate juror cognition by presenting jurors with information in a way that motivates them to understand the law and to persist in thinking about the law and facts until they reach a good decision.

Social science research has repeatedly demonstrated that people’s motivations and goals have a significant influence on how they perceive, attend to, and interpret information. People with different motives or goals may arrive at very different decisions and may draw different conclusions from the same information as those motives or goals change. More specifically, motives influence how we notice and interpret information, as well as which knowledge structures or schemas we use to unconsciously filter the information. A review of the psychology literature identifies dozens

78. Kang et al., supra note 77, at 1129.
79. Id. at 1169; see ROBBENOLT & STERNLIGHT, supra note 76, at 77–83; Craig A. Anderson, *Inoculation and Counterexplanation: Debiasing Techniques in the Perseverance of Social Theories*, 1 SOC. COGNITION 126, 126 (1982).
81. See, e.g., SUSAN T. FISKE, *SOCIAL BEINGS: CORE MOTIVES IN SOCIAL PSYCHOLOGY* 14 (2004) (noting that scholars define “motivation” differently); Kunda, supra note 73, at 480 (describing motivation as “any wish, desire, or preference that concerns the outcome of a given reasoning task”); Steven L. Neuberg, *The Goal of Forming Accurate Impressions During Social Interactions: Attenuating the Impact of Negative Expectancies*, 56 J. PERSONALITY & SOC. PSYCHOL. 374, 375 (1989) (citing various studies); see also, e.g., GORDON B. MOSKOWITZ, *SOCIAL COGNITION* 96 (2005) (defining “motive” as a “process of being driven to reduce some perceived discrepancy between the current state of the organism and some desired state of the organism”).
83. Jon Hanson & David Yosifon, *The Situational Character: A Critical Realist Perspective On The Human Animal*, 93 GEO. L.J. 1, 90 (2004); Kahan, supra note 8, at 19. Much of the research on motivated cognition is grounded in dual-process models of social psychology, which recognize that people make decisions and interpret information along a continuum from quick intuitive judgments to more thoughtful reasoning. See Serena Chen et al., *Motivated Heuristic and Systematic Processing*, 10 PSYCHOL. INQUIRY 44 (1999) (citing various studies); see also
of different motives, each of which have some influence on cognition and decisionmaking, and some of which overlap or conflict. And while jurors are influenced by many overlapping motives, including motivations personal to individual jurors like political ideology and racial bias, when they are acting in their capacity as decisionmakers in a trial, we can broadly categorize jurors’ core social motivational influences as the motives to understand and be accurate and the motive for closure.

A. The Motive to Understand & The Motive to Be Accurate

Like other people, jurors have a strong desire to understand their world; they want to know the reasons things happen and why the law requires what it does. In a famous study testing this idea, researchers had an assistant approach people who were about to use a copy machine and ask if they could use the machine first. When

MOSKOWITZ, supra note 81, at 194 (describing the dual-process model coined by Marilynn Brewer). There are a variety of dual-process models, including Marilynn Brewer’s dual-process model, the heuristic-schematic model coined by Shelley Chaiken, and the theory of lay epistemics developed by Arie Kruglanski. Id. The various models use different terminology, but all of them describe people as using a combination of default information processing including schemas and heuristics, as well as more effortful and deliberate mental processing. For a review of the various models. See id. at 195–219. More recently, the dual-process model is often referred to as a “System 1/System 2” model, with System 1 involving “fast thinking” and System 2 including “slow thinking.” See Daniel Kahneman, Maps of Bounded Rationality: Psychology for Behavioral Economics, 93 AM. ECON. REV., 1449, 1451 (2003) (crediting Keith Stanovich and Richard West, Individual Differences in Reasoning: Implications for the Rationality Debate?, 29 BEHAV. BRAIN SCI. 645 (2000) with coining the original System 1/System 2 label). Motivation influences both the form of decisionmaking that takes place (heuristic or systematic, System 1 or 2) and it directs whichever cognition ultimately occurs. Chen et al., supra, at 443.

84. See Hanson & Yosifon, supra note 83, at 91 (identifying the motive to understand, the motive to self-affirm, the motive to simplify, and the motive to cohere); FISKE, supra note 81, at 15 (identifying five categories of motives, including motives to belong, understand, control, self-enhance and trust); David A. Dunning, On the Motives Underlying Social Cognition, in EMOTION AND MOTIVATION 137, 138 (Marilynn B. Brewer & Miles Hewstone eds., 2004) (identifying “desires” for “knowledge,” “affirmation,” and “coherence”).

85. KUNDA, supra note 9, at 141; see FISKE, supra note 81, at 88 (noting that although the type of unambiguous understanding that people seek varies among cultures, the basic need to understand is a core social motive that exists across cultures).

the assistant gave no reason for wanting to go first (“Excuse me, I have 5 pages. May I use the Xerox machine?”), 60% of subjects allowed the assistant to use the machine. Conversely, when the assistant gave a reason (“Excuse me, I have 5 pages. May I use the Xerox machine, because I'm in a rush?”), 94% of subjects acquiesced. Interestingly, even when the assistant gave a meaningless reason (“Excuse me, I have 5 pages. May I use the Xerox machine, because I have to make copies?”), 93% of subjects still allowed the assistant to cut in line. In other words, as long as subjects were given some reason—legitimate or not—that helped them understand why the assistant needed to use the copy machine first, subjects were considerably more likely to allow the intrusion.

Closely related to jurors' motives to understand the law and the facts in a trial are jurors' motives to cohere and simplify the trial “story” they hear. When faced with conflicting explanations, jurors will tend to choose the explanation that “hangs together best, that is, the story that provides the most coherent explanation of all the relevant evidence.” Stories that explain more facts are more coherent, and jurors will therefore view those stories as more persuasive. Similarly, when asked to explain behavior, jurors, like other people, will prefer those explanations that are simplest or require the fewest assumptions. For example, when subjects were told that “Cheryl” was tired, had gained weight, and had an upset stomach, they preferred the explanation that she was pregnant to the explanation that she had mononucleosis, had stopped exercising,
and had a stomach virus. The simple explanation of pregnancy was a better explanation than the conjunction of multiple examples. Moreover, the broad explanation of pregnancy better explained all three facts—fatigue, weight gain, upset stomach—better than any of the narrow explanations—mononucleosis, no exercise, stomach virus—thus making that explanation more coherent.

Similarly, this desire to understand is closely related to jurors’ motivation to be correct in that understanding, or their motivation to be accurate. When people are motivated to be accurate, studies show that they pay closer attention, think more carefully, and are less likely to rely on general heuristics in reaching a decision. In another study, some subjects were told that after making a judgment, they would have to explain their thinking to researchers. Other participants were told that their judgments would instead remain confidential, and the experimenter would not know how they had responded. The participants were then given the responses of three actual people to sixteen personality questions and were asked to write a description of each respondent’s personality based on those responses and to predict how each respondent would respond to sixteen other personality questions. The participants who were motivated to be accurate by being accountable formed more complex impressions of the three respondents, relied on a greater number of attributes to describe each person, and made more accurate predictions about how the respondents would answer the second set of questions.

Many studies suggest that if we increase jurors’ accuracy goals, this will improve their judgment, lead them to engage in more careful and elaborate thinking, and reduce bias. People are motivated to be accurate when they expect to be evaluated, when they expect to justify their judgment to other people, when they expect their judgment to be made public, or when they believe their

94. Read & Marcus-Newhall, supra note 92, at 436–37.
95. Id. at 436.
96. Id.
97. See, e.g., Kunda, supra note 73, at 481 (suggesting that when people are motivated to be accurate, they pay closer attention and think more carefully); see also Harkness et al., supra note 1, at 22 (citing studies that suggest people rely less on heuristics when involved in solving a problem).
99. Id. at 703.
100. Id. at 702–03.
101. Id. at 705.
102. See KUNDA, supra note 9, at 236.
judgment will have a real impact on other’s lives.103 Furthermore, people motivated in this way are less likely to exhibit a variety of cognitive biases: they are less likely to be unduly influenced by early impressions (the primacy effect),104 they are less likely to be influenced by the race of a writer when evaluating their work product,105 and they are less likely to anchor on irrelevant numbers when predicting the probability of an event.106 The reduction in bias of people with strong accuracy goals is probably due to their more careful and more elaborate thinking, as evidenced by the fact that all of these biases are exaggerated when people are under time pressure.107

Jurors are motivated to understand the law and the facts in a trial and to fit these together into a cohesive trial story. This motivation is closely related to jurors’ motive to be accurate in that understanding. If we can harness these motivations by holding jurors accountable for their decisions, jurors will pay closer attention to the information they hear in a trial and think more carefully before reaching a decision.

103. See KUNDA, supra note 9, at 237–38 (citing various studies).
105. Id. at 457.
106. Id. at 460–61.
107. KUNDA, supra note 9, at 238 (citing various studies). Accuracy goals alone do not guarantee increased accuracy, however. For example, telling someone to be accurate does generally not reduce bias, nor does paying someone to be accurate. See Mark Snyder & William B. Swann, Jr., Hypothesis-Testing Processes in Social Interaction, 36 J. PERSONALITY & SOC. PSYCHOL. 1202, 1209–10 (1978) (explaining that subjects who were offered $25 to be “as accurate as possible” were not more likely to be accurate). Moreover, studies of people working in their field of expertise—a situation where subjects could be expected to be as accurate as possible—still show persistent inaccuracies in judgment. Steven L. Neuberg & Susan T. Fiske, Motivational Influences on Impression Formation: Outcome Dependency, Accuracy-Driven Attention, & Individuating Processes, 53 J. PERSONALITY & SOC. PSYCHOL. 431, 433 (1987) (citing various studies). Moreover, accountability can make people defensive and self-serving when they have already committed to a choice. See generally Philip E. Tetlock et al., Social & Cognitive Strategies for Coping With Accountability: Conformity, Complexity & Bolstering, 57 J. PERSONALITY & SOC. PSYCHOL. 632, 633 (1989).
B. The Motive for Closure

Like other decisionmakers, jurors need closure after making a decision; that is, they need firm answers to their questions. Sometimes the motive to achieve closure—to arrive at a clear conclusion—becomes a goal in and of itself. Of course, like other motivations, this motivation for closure can vary from a strong need to achieve closure at one end of the spectrum to a strong need to avoid closure on the opposite end. If jurors have a strong need for closure, they may display cognitive impatience: they may rush to judgment and fail to consider alternative explanations. Conversely, if jurors have a strong need to avoid closure, they “may savor uncertainty,” suspend judgment, and consider competing explanations.

One way to conceptualize the timeline of jurors’ knowledge acquisition is to break it into two phases: first, they generate hypotheses about the reasons for events, and second, they test and evaluate these hypotheses. Because there are a potentially infinite number of hypotheses for any given event, the process of generating hypotheses must stop at some point so that jurors can move to the second step. When they are motivated to achieve closure, jurors may “freeze” this hypothesis generation as soon as they have arrived at what is a “good enough” solution. Conversely, accuracy goals


109. Id.

110. Id.

111. Id.

112. Id.

113. This is the lay epistemics model of dual-processing, which focuses on the factors that determine when closure occurs, or when people have sufficient confidence in a particular hypothesis to stop generating other hypotheses. See id. at 334–35.

114. Id. at 335.

115. Id., at 336; see also KUNDA, supra note 9, at 242 (noting that people are motivated to obtain closure when they are operating under time pressure, when the decisionmaking task is tedious, or when they will be able to turn to a more enjoyable activity when the decisionmaking is complete); see also Kruglanski & Freund, supra note 104, at 461–62 (discussing how time pressure and evaluation apprehension affects “freezing”).
can motivate jurors to avoid closure: if jurors know that they will be accountable for the accuracy of their decisions, this can motivate them to prolong the decisionmaking process and think more carefully.\footnote{KUNDA, supra note 9, at 243 (“Therefore, the consequences of closure avoidance can be expected to be the same as the consequences of accuracy goals—greater accuracy and fewer biases when increased efforts yield reliance on better reasoning strategies, but not otherwise.”).}

We can use closure goals to influence the amount of time and effort jurors spend on decisionmaking and can therefore affect the quality of those decisions.\footnote{Id. at 245.} In a study demonstrating this effect, subjects watched a woman give a speech critical of student exchange programs and then answered a series of questions.\footnote{Donna M. Webster, Motivated Augmentation and Reduction of the Overattribution Bias, 65 J. PERSONALITY & SOC. PSYCHOL. 261, 262 (1993). Subjects were told they were participating in a subject designed to investigate how people form impressions of others based on limited information. Id. at 263.} Some subjects were told that the woman chose to read the speech, and others were told that she had no choice.\footnote{In such circumstances, as a result of “correspondence bias,” people tend to assume that the speaker’s real opinions are consistent with her expressed views, even when they know the speaker had not chosen to express the views; they “exaggerate the extent to which her attitude corresponds to her behavior.” KUNDA, supra note 9, at 243 (discussing Webster, supra note 118, at 262).} Some subjects were motivated to obtain closure by being told that when they were done, they would be asked to watch a series of comedy clips, and others were motivated to avoid closure by being told that when they were done, they would be asked to view a lecture on statistics.\footnote{Webster, supra note 118, at 262. Control participants expected to next complete a task that was similar to the first one. Id.} Subjects motivated to achieve closure spent less time on the task than control subjects, and subjects motivated to avoid closure spent more time than controls.\footnote{Id. at 264.} Furthermore, although subjects motivated to achieve closure reported a higher level of confidence in their decisions and believed the task required less thought than those motivated to avoid closure, they actually made poorer decisions and were more likely to incorrectly believe that the speaker’s expressed views were her actual opinion.\footnote{Id. at 264, 269.} In contrast, the more careful scrutiny triggered by the need to avoid closure helped to improve decisionmaking.\footnote{Id. at 264.}
A juror’s willingness to avoid closure and continue generating hypotheses about a certain event can be influenced by both cognitive capability and motivation. First, jurors may not be able to generate multiple hypotheses about what happened in the case at hand if they do not know what facts will satisfy the legal standard or claim; in other words, they will not know what they need to know. We can help jurors develop the cognitive capacity to continue generating hypotheses about the trial “story” by teaching them about the law before the introduction of evidence. Second, jurors must be motivated to engage in hypothesis generation. We can motivate jurors to continue generating potential hypotheses by allowing them to ask questions about both the facts and the law in the case.

III. HOW MINDSET AND LEARNING GOALS INFLUENCE JUROR DECISIONMAKING

Although we can identify some core social motives—like the motive to understand and the motive for closure—that influence jury decisionmaking, we cannot know or control for all of the motivations that might influence individual jurors, especially when those jurors may not be aware of their own motives. What we can attempt to influence, however, is how carefully jurors think about and understand the law they are expected to apply to the facts in a trial. We can motivate jurors to understand the law and to be accurate in that understanding, and to avoid closure before they have carefully considered the law and the relevant facts. Specifically, we can motivate jurors to think more carefully about the law by inducing a deliberative mindset rather than an implemental mindset, and we can motivate jurors to learn the law by framing their task with knowledge goals rather than performance goals.

A. Deliberative & Implemental Mindsets

Jurors who have not yet reached a conclusion about the facts in a trial will think differently about the law than jurors who have already reached a decision. This is because people develop a
“deliberative mindset” when they are actively deciding between two different actions or between action and inaction. The deliberative mindset concept refers to the notion that, because undecided people do not know where their decisions will ultimately take them, they remain more open to information and more evenhanded and accurate in their appraisal of that information. Research has shown that people in a deliberative mindset are more impartial when processing available information, and are less vulnerable to self-serving biases, including the illusion of control and overly positive self-perceptions.

In contrast, if jurors have already seen the facts in a case and have developed a “story” when they learn the law, they will be in an “implemental mindset,” where they try to fit the law to the story they have created. Unlike the deliberative mindset, which is characterized by an evenhanded consideration of different possibilities, the implemental mindset is characterized by considerations of how a given decision should be implemented to the exclusion of new information. If jurors are in an implemental mindset when they learn the law, they will only be focused on information relevant to the story they have already created and will tend to ignore information that does not support that story.

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135. Id.
136. Beckmann & Gollwitzer, supra note 131, at 276.
137. “It is not surprising, then, that people who are in the process of implementing an intended project do not reflect on its value in an evenhanded manner. Such deliberation would undermine their illusions and, thus, hinder efficient goal achievement.” Taylor & Gollwitzer, supra note 133, at 224; see Gollwitzer, supra note 128, at 264 (noting that “planning the implementation of a chosen goal should create a cognitive orientation (the implemental mind-set) that...”)

Deliberative and Implemental Mind-Sets on Illusion of Control, 56 J. PERSONALITY & SOC. PSYCHOL. 531, 540 (1989) (discussing how a “deliberative mind-set” may shape an individual’s judgment); Peter M. Gollwitzer, Why We Thought That Action Mind-Sets Affect Illusions of Control, 14 PSYCHOL. INQUIRY 261, 264 (2003) (discussing how open-mindedness may influence the direction an individual’s final decision).
jurors have a legal context in which to consider evidence, this will help them better understand the evidence when they hear it and apply it to the facts in the case.\footnote{138}

Moreover, juror deliberation may be improved when jurors are in a deliberative mindset when they first discuss the evidence in a case.\footnote{139} When jury deliberation begins with a vote, which puts jurors in an implemental mindset, jury discussions tend to be more argumentative because jurors advocate for their established positions. Professor Simon argues that when this happens, the jury’s evaluation of the evidence is “more disjointed, the connections between the law and the facts are less developed, and the debate is less rigorous and congenial.”\footnote{140} For example, one study of real juries found that jurors who took a first vote within the first ten minutes of deliberation were more likely to hang than juries who deliberated before the first vote.\footnote{141}

Furthermore, “cognitive load” is reduced when jurors are in a deliberative mindset, allowing them to devote more cognitive resources to learning the law.\footnote{142} Cognitive load theory is concerned facilitates the task of the preaction phase (i.e., getting started on the chosen goal). As this requires a more focused and selective orientation to processing information, closed-mindedness rather than open-mindedness with respect to available information seems called for.”).

\begin{itemize}
  \item \footnote{138} See generally Smith, supra note 126, at 226 (finding that pre-instructed subjects were better able to apply the law to the facts in a case than subjects who were not pre-instructed). Smith notes, however, that this result cannot be seen as a pure effect of pretrial instruction because the group that only received pre-instructions (and no post-instructions) did not show this improvement, but the results do indicate that there is benefit in hearing the instructions twice. \textit{Id.} Of course, it is important that this legal context be substantively correct, otherwise jurors might try to fit the facts they hear in a trial to their incorrect understanding of the law.
  \item \footnote{139} Simon, supra note 13, at 201.
  \item \footnote{140} \textit{Id.} (citing Reid Hastie et al., \textit{Inside the Jury} (1983)).
  \item \footnote{141} Paula L. Hannaford-Agor et al., \textit{Are Hung Juries a Problem?} Nat’l Ctr. For State Cts., 65 (2002). The authors also found that jurors tend to persist in their early opinions. “If jurors are leaning toward conviction initially, they most often convict. A similar pattern holds for those who initially favor acquittal. However, if jurors are quite evenly split or the jury has only a slight majority, the case is more likely to hang.” \textit{Id.} at 66.
  \item \footnote{142} See Gollwitzer, supra note 128, at 263–64 (“[D]eliberating participants showed an increase in their short-term memory capacity, compared with both their own earlier span and the span of planning participants.”); \textit{see also} John Sweller et al., \textit{Cognitive Load as a Factor in the Structuring of Technical Material}, 119 J. Experimental Psychol.: Gen. 176 (1990) (stating that appropriate reorganization of material can reduce cognitive load, which will in turn facilitate problem solving).}


with how people’s cognitive resources are used during learning and problem-solving.\textsuperscript{143} The intellectual complexity of the law jurors must learn generates intrinsic cognitive load, while the format and timing of jury instructions generates extraneous cognitive load.\textsuperscript{144} Both intrinsic and extraneous load contribute to the total working memory load imposed on the learner, and if new material is presented to jurors in a way that causes them to use too many cognitive resources, those cognitive resources will be unavailable for learning.\textsuperscript{145} Intrinsic load is fixed; the law jurors are expected to learn is intellectually challenging, but we can minimize extraneous load by teaching the jurors the law when they are in a deliberative mindset.

Finally, the act of making a decision about the facts, which will move jurors from the deliberative mindset to the implemental mindset, can itself lead to enhanced motivation; this transition, however, should not occur until after jurors understand the relevant law.\textsuperscript{146} If appropriately timed, this implemental mindset can help jurors persist at reaching a correct verdict on the facts. One study found that subjects in an implemental mindset persisted longer in solving a puzzle and in playing a computer game, and were also better able to disengage from the goal when appropriate.\textsuperscript{147} From this, the authors of the study concluded that the implemental mindset allows for a flexible response where the decisionmaker is better able to determine when she has reached a good decision.\textsuperscript{148}

\textsuperscript{143} Sweller et al., supra note 142, at 176.
\textsuperscript{144} Sharon Tindall-Ford et al., When Two Sensory Modes Are Better Than One, 3 J. EXPERIMENTAL PSYCHOL.: APPLIED 257, 260 (1997). The intellectual complexity of the material determines intrinsic load, while instructional design determines extrinsic load. Id.
\textsuperscript{145} Sweller et al., supra note 142, at 176.
\textsuperscript{147} Veronika Brandstätter & Elisabeth Frank, Effects of Deliberative and Implemental Mindsets on Persistence in Goal-Directed Behavior, 28 PERSONALITY AND SOC. PSYCHOL. BULL. 1366, 1366 (2002). The authors noted that the implemental mindset only had an impact on goal persistence in cases of “behavioral conflict,” and that “[n]o differences were found when the desirability and feasibility of the task were both low or both high.” Id.
\textsuperscript{148} Id. at 1377 (“Whenever a person has decided which goal to pursue and then commits himself or herself to the concrete aspects of implementing the goal, an implemental mindset . . . supports efficient goal striving—either by promoting persistence or by preventing undue persistence, depending on the contingencies of the situation.”).
We can improve juror decisionmaking by teaching jurors about the law before the introduction of evidence. If we teach jurors about the relevant law before they hear about the facts, they will be in a deliberative mindset, which motivates jurors to consider many different possibilities instead of trying to fit the law into the story they have already created. Moreover, we should encourage jurors to deliberate thoroughly before taking the first vote to improve the quality of the deliberations. Finally, this deliberative mindset will reduce jurors' cognitive load and free up their cognitive resources to focus on learning the law and applying that law to the facts they see in the trial.

B. Knowledge & Performance Goals

Learning is an active process and, like other learners, jurors must be motivated to engage in this process and actively learn the law. Research focusing on learning goals distinguishes between “knowledge goals,” or goals to advance knowledge or skill, and “performance goals,” or goals to complete a particular task. If we can motivate jurors to actively learn the law rather than to just reach a verdict, we can increase jurors' knowledge of the substantive law and improve decisionmaking.

Both motivation and cognition influence juror performance; in other words, the quality of a juror’s decisions about the facts will be

149. It is worth noting that most of the research on goal setting was developed within industrial and organizational psychology. Edwin A. Locke & Gary P. Latham, New Directions in Goal-Setting Theory, 15 CURRENT DIRECTIONS IN PSYCHOL. SCI. 265, 265 (2006). Most of the focus of the research has been on employee performance in the workplace, though it has also been applied in sports and health care contexts. As Locke & Latham, the fathers of goal-setting theory note, it can and should be used in any context “in which an individual or group has some control over the outcomes.” Id. at 267. Further, one could draw many analogies between an employee and a juror; both are paid for their time, are expected to obtain particular results, have a “supervisor,” and are expected to work with others.

150. Both cognitive psychology and learning theory posit that learning is an active process and that learning depends on motivation. See Michael Hunter Schwartz, Teaching Law by Design: How Learning Theory and Instructional Design Can Inform and Reform Law Teaching, 38 SAN DIEGO L. REV. 347, 374–75 (2001). This belief is pervasive throughout the general public as well. In a study of adolescents with severe learning disabilities, most tended to attribute their learning problems to their own lack of effort. Barry H. Schneider, LD as They See It: Perceptions of Adolescents in a Special Residential School, 17 J. LEARNING DISABILITIES 533, 533 (1984).

151. Evelyn Ng & Carl Bereiter, Three Levels of Goal Orientation in Learning, 1 J. LEARNING SCI. 243, 244 (1991) (citing various studies).
influenced by both her understanding of the law and her motivation to understand the law. Learning goals can do one of two things: they can help motivate people to use their existing abilities to reach a decision, or they can motivate people to acquire new knowledge and then apply that knowledge to their decisionmaking. In situations where people already have the ability and knowledge to complete a goal, specific and difficult performance goals are more motivating and increase performance and satisfaction. In contrast, when a situation primarily requires the acquisition of new knowledge or skills rather than just an increase in effort and persistence, knowledge goals, which are framed to focus attention on knowledge or skill acquisition, are more effective.

If jurors already knew the law they needed to know to reach a good decision in a case, a specific performance goal to reach an accurate verdict might lead to greater effort and persistence. For instance, a series of experiments with experienced logging crews found that loggers with specific high goals (cut X number of logs today) had higher productivity than crews who did not have such a goal. In more than 400 studies on goal-setting, researchers have shown the positive effects on performance of setting specific and challenging performance goals. The performance of skilled employees in highly complex jobs like science and engineering as

153. Locke & Latham, supra note 149, at 265.
154. Id.
156. Locke & Latham, supra note 149, at 265; Gerard H. Seijts & Gary P. Latham, The Effect of Distal Learning, Outcome, and Proximal Goals on a Moderately Complex Task, 22 J. ORGANIZATIONAL BEHAV. 291, 291 (2001) (stating “[w]hen an individual has the ability necessary to perform a task, setting a specific, difficult outcome goal directs attention to effort and persistence to achieve it . . . .”); see also Seijts & Latham, supra note 155, at 125 (discussing several situations in which companies have provided performance goals for complex tasks and the level of performance has improved).
158. Locke & Latham, supra note 149, at 265.
159. Gary P. Latham et al., Importance Of Participative Goal Setting and Anticipated Rewards on Goal Difficulty and Job Performance, 63 J. APPLIED PSYCHOL. 163, 163 (1978).
well as in sports and health care settings, have shown the positive effects of setting specific and challenging performance goals.\textsuperscript{160}

However, because jurors must first learn the relevant law before they can reach a decision about the facts in a trial, setting a specific challenging performance goal can actually be detrimental to performance.\textsuperscript{161} In the early stages of learning, before routines and skills are automatic, people must focus on learning the material necessary to perform well. Asking people to also focus on attaining a specific performance goal requires too much cognitive demand and distracts attention from knowledge acquisition.\textsuperscript{162} For example, if a novice golfer focuses on obtaining a score of 95, the novice might not have the cognitive resources needed to learn how to swing the club and master weight transfer.\textsuperscript{163} Furthermore, giving a person a specific challenging goal can make them so anxious to perform well that they fail to acquire the underlying knowledge necessary to achieve the goal.\textsuperscript{164}

Jurors need both knowledge goals and performance goals to reach a good decision, but the performance goal to reach a correct verdict should not be set until jurors have the legal knowledge to attain that goal.\textsuperscript{165} In a study testing this idea in a workplace setting, participants in a business simulation were asked to make decisions about pricing, advertising, and financing of cellular telephones. Participants given a knowledge goal were asked to focus on developing strategies to increase market share, while others were given a simple performance goal to attain a total market share of 21\%.\textsuperscript{166} The ultimate market share of individuals with the knowledge goal was almost twice as high as those with a

\textsuperscript{160} Seijts & Latham, supra note 155, at 125.

\textsuperscript{161} Id. at 126.

\textsuperscript{162} Id.; see Kanfer & Ackerman, supra note 152, at 687; see also JOHN SWELLER ET AL., COGNITIVE LOAD THEORY: EXPLORATIONS IN THE LEARNING SCIENCES, INSTRUCTIONAL SYSTEMS AND PERFORMANCE TECHNOLOGIES 108 (Springer 2011) (discussing cognitive load theory) (“Asking students to problem solve, particularly those learning new concepts and procedures (novices in the domain), creates an extraneous cognitive load that is detrimental to learning. Instead there should be a systematic process of using worked examples in the sense that worked examples should be programmed to include the alternation strategy . . . and consist of extensive practice prior to solving sets of problems unaided.”).

\textsuperscript{163} Seijts & Latham, supra note 155, at 126.

\textsuperscript{164} Id.

\textsuperscript{165} Id. at 128; see also Kanfer & Ackerman, supra note 152, at 687 (noting that “interventions designed to engage motivational processes may impede task learning when presented prior to an understanding of what the task is about . . . [while those] following development of declarative knowledge may facilitate performance.”).

\textsuperscript{166} Seijts & Latham, supra note 155, at 127.
performance outcome goal. Moreover, individuals with the knowledge goal “took the time necessary to acquire the knowledge to perform the task effectively” and “were convinced they were capable of mastering the task.” The authors concluded that this increase in self-efficacy was a result of the knowledge goal and the resulting acquisition of the knowledge necessary to perform the task well, while the performance goal led to a “mad scramble” for solutions.

Finally, knowledge goals will be more helpful to jurors who are trying to construct a “story” about the evidence they will ultimately see in a trial. The story model of juror decisionmaking suggests that in order to make sense of all of the evidence they are asked to evaluate, jurors construct a story of what they think happened. Knowledge goals will motivate jurors to try to answer questions about the law or facts needed to understand the story. These focused knowledge goals will also help jurors to conserve limited cognitive resources by allowing them to spend time drawing inferences relevant to their goals of understanding the story and ignoring irrelevant information.

The difference between knowledge and performance goals is “first and foremost a mindset,” and much of the difference to jurors will be in how we frame their goals as jurors. For a performance goal, instructions would be framed around task performance; for instance, in a typical trial, jurors are told they should apply the law they are given to the facts they have heard in a trial to reach a verdict. The acquisition of the knowledge to attain the goal is not mentioned because knowledge of the law and the skill to apply it to the facts is considered a given. In contrast, a knowledge goal would frame the instructions in terms of knowledge acquisition; jurors could be told which law they are expected to understand

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167. Id.
168. Id. at 127–28.
169. Id. at 127.
170. Pennington & Hastie, supra note 10, at 519.
172. Id. at 275 (“What the system learns from the story depends on what it needs to learn, that is, on its knowledge goals.”).
173. Seijts & Latham, supra note 155, at 128.
174. See, e.g., Vt. Gen. Jury Instructions, available at http://www.vtbar.org/UserFiles/Files/WebPages/Attorney%20Resources/juryinstructions/civiljuryinstructions/generaljury.htm (last visited July 18, 2013) (“It is your duty as jurors to follow the law as I shall state it to you, and to apply that law to the facts as you find them from the evidence presented in court.”).
175. See Seijts & Latham, supra note 155, at 128.
before they are asked to apply it to a set of facts. The knowledge goal “draws attention away from the end result”\textsuperscript{176} and instead moves the focus to an understanding of the substantive law. Once the jury has that knowledge, it can be given a performance goal to reach a verdict using that law.

IV. RECOMMENDATIONS: WHAT MOTIVATED COGNITION MEANS FOR HOW WE SHOULD TEACH JURORS ABOUT THE LAW

Although extensive training in the law is not possible given the time constraints of a typical trial, we can draw upon these insights from studies of motivated cognition to motivate jurors to efficiently learn the law and to think carefully about how the law will apply to the facts they will see in a trial. Once we understand how to harness the power of motivated cognition, we can use principles of educational psychology to increase efficient learning and allow jurors to study and learn the law they will apply in a trial. Specifically, we can teach jurors the law using a variety of formats to increase learning before the introduction of evidence, we can give jurors knowledge goals and allow them to ask questions to enhance their understanding of the law and the facts, and we can ask jurors to explain the law to themselves through the use of special verdict forms.

A. Teach Jurors About the Law Before the Introduction of Evidence

The timing and form of jury instructions and juror education about the applicable law can have a profound impact on juror comprehension of the law.\textsuperscript{177} Some courts have begun to pre-instruct jurors about the substantive law, giving jurors an overview of the relevant black letter law and general legal principles before the introduction of evidence, and eight states currently require pre-instruction.\textsuperscript{178} In other states, judges have discretion to determine the timing of jury instructions.\textsuperscript{179} Psychology research tells us that

\textsuperscript{176} Id.
\textsuperscript{177} See, e.g., Elwork et al., supra note 24, at 163; Heuer & Penrod, supra note 45, at 409, 425–26.
\textsuperscript{178} For an overview of state law on juror pre-instruction on substantive law, see State of the States Survey, supra note 22, at 36.
\textsuperscript{179} 89 C.J.S. Trial § 809 (2012). Appellate courts consistently leave decisions about the timing of instructions to the discretion of the trial court judge. See, e.g., United States v. Ruppel, 666 F.2d 261, 273–74 (5th Cir. 1982); People v. Valenzuela, 142 Cal. Rptr. 655, 657 (Ct. App. 1977). Some appellate opinions encourage the use of pre-trial instruction. See Valenzuela, 142 Cal. Rptr. at 658 (“[W]e commend the
this type of pre-instruction can help motivate jurors to get a handle on the applicable law before they become too bogged down in the facts of a trial, allowing them to better understand and remember the evidence they will hear in a trial.\textsuperscript{180}

Much of the time, however, juror pre-instruction only addresses general legal principles like burden of proof or reasonable doubt, and does not usually include specific instruction about the elements of the crime or claims at issue.\textsuperscript{181} Moreover, even when jurors are pre-instructed, this addresses the \textit{timing} rather than the \textit{form} of the instructions. The instructions still leave most of the responsibility for teaching and learning to the jurors themselves, with little monitoring of how well jurors actually comprehend the substantive law or additional assistance if jurors do not understand the law included in the instructions.\textsuperscript{182}

We should go further and give jurors a comprehensive education on all of the legal principles they will be expected to understand and apply during a trial before they hear the facts.\textsuperscript{183} If jurors learn the law before they hear the facts, they will be in a deliberative mindset when they receive their education about the law, making them more receptive to new information and more impartial when processing evidence.\textsuperscript{184} Because jurors are typically not given instructions on the applicable law until after the presentation of evidence, they have already created an initial impression of the case, and the law that they learn will tend to support that established disposition.\textsuperscript{185} They

\begin{itemize}
  \item astute judge who tries to give the jury advance notice of the law applicable to the case . . . . However, as we see it, the purpose of pre-instructing jurors is not to avoid the necessity of instructing at the close of argument; rather, it is to give them some advance understanding of the applicable principles of law so that they will not receive the evidence and arguments in a vacuum.”). Others advise against it. See, \textit{e.g.}, People v. Murillo, 55 Cal. Rptr. 2d 21, 24 (Ct. App. 1996) (noting that the preferable method is to give the jury instructions after the close of evidence but before closing arguments, while acknowledging that the trial court has discretion on this matter).\textsuperscript{180}
  \item See Elwork et al., \textit{supra} note 24, at 163 (finding that pre-instructions gave jurors a greater opportunity to focus their attention on relevant evidence and remember it); Heuer & Penrod, \textit{supra} note 45, at 409, 425–26 (finding that pre-instructions help jurors follow legal guidelines in decisionmaking and increase juror satisfaction).
  \item See State of the States Survey, \textit{supra} note 22, at 36.
  \item See, \textit{e.g.}, Elwork et al., \textit{supra} note 24, at 164.
  \item Of course, the trial itself sometimes shapes the legal claims the jury ultimately decides, but we can instruct jurors on the major claims involved in the trial and the ones they are most likely to decide.\textsuperscript{183}
  \item See discussion \textit{supra} Part III.A.
  \item See Heuer & Penrod, \textit{supra} note 45, at 412.
\end{itemize}
will have already begun to analyze the facts and reach a decision without the benefit of an education about the applicable law. If instead we teach jurors the applicable law before the presentation of evidence, they will still be in the deliberative mindset when they learn the law, leading to more careful consideration of the law and better decisions.

Furthermore, research in cognitive load theory suggests that jurors should be introduced to information in a variety of ways—not just through written or verbal instructions—in order to reduce the load on working memory and improve comprehension. Some instructional presentations impose such a heavy cognitive load before learning begins (because they require the learner to mentally organize and process multiple elements) that they can interfere with the acquisition of new knowledge. Because learning and problem-solving impose heavy cognitive demand, the form of the presentation itself should minimize the use of cognitive resources and allow learners to devote available cognitive load to the acquisition of new knowledge. We can reorganize learning materials to eliminate extraneous cognitive load and improve learning and problem-solving. Specifically, when material is intellectually challenging—thus imposing a high intrinsic cognitive load—learning materials that combine dual-mode presentation techniques—e.g., auditory text and visual diagrams—result in better learning.

In the jury setting, we can improve juror comprehension of the law by instructing jurors using dual-mode presentation techniques, which would combine standard jury instructions with flowcharts and animated videos. One study of these kinds of instructions showed that jurors given a simple flowchart outlining the law of self-defense—in conjunction with verbal instructions about the law—had improved comprehension of the law. In another study, mock jurors

186. See id.
187. See Sweller et al., supra note 142, at 176; Tindall-Ford et al., supra note 144, at 257.
188. See Sweller et al., supra note 142, at 176.
189. See id.
190. Id.; Tindall-Ford et al., supra note 144, at 260.
191. Tindall-Ford et al., supra note 144, at 282.
192. Carolyn Semmler & Neil Brewer, Using a Flow-Chart to Improve Comprehension of Jury Instructions, 9 PSYCHIATRY, PSYCHOL. & L. 262, 266 (2002). The authors are careful to note, however, that despite increased comprehension of the underlying law, when the study participants were asked to apply their knowledge (from the instructions and the flow chart) to novel scenarios, most still performed poorly, although “there was a hint of better performance in the instruction plus refer flow-chart condition.” Id. Therefore, flow-charts should not be the only
who were shown an animated video depicting various elements of self-defense (in conjunction with verbal instructions about the law and flowcharts) showed marked improvement in comprehension across a variety of measures, including verdict accuracy, a multiple-choice test, a paraphrase measure, and a test of transfer of legal knowledge to novel facts.\footnote{193}{Neil Brewer et al., Improving Comprehension of Jury Instructions with Audio-Visual Presentation, 18 APPLIED COGN. PSYCHOL. 765, 773 (2004).}

Furthermore, the use of animated videos has been shown to bring lay jurors’ level of comprehension of self-defense up to that of law students who had completed an entire criminal law course.\footnote{194}{Id.} In this study, the judge described the legal components of murder and self-defense, specifically the requirement that there be a “reasonable possibility” that the defendant acted in self-defense.\footnote{195}{Id.} While the judge was describing the elements, participants saw an animation of three balls, in separate frames, being thrown against a pane of glass.\footnote{196}{Id.} “A tennis ball had ‘a chance,’ a baseball had a ‘reasonable possibility,’ and a steel ball was ‘almost certain,’ to break the glass.”\footnote{197}{Id.} Although the law students’ performance was superior to other legally untrained subjects when both heard standard verbal instructions, that performance difference disappeared when both saw the animated video.\footnote{198}{Id.}

By teaching jurors the substantive law at the beginning of their jury service when jurors are still in a deliberative mindset, we can motivate jurors to learn the applicable law before they are expected to apply it to the facts in a trial. Research in goal setting suggests that this will increase juror self-efficacy and improve decisionmaking. Furthermore, we should introduce the law to jurors in a variety of ways in order to reduce cognitive load and improve comprehension.

method to increase juror comprehension and performance, but should be combined with the other methods and approaches outlined here.

\footnote{193}{Neil Brewer et al., Improving Comprehension of Jury Instructions with Audio-Visual Presentation, 18 APPLIED COGN. PSYCHOL. 765, 773 (2004).}
\footnote{194}{Id.}
\footnote{195}{Id.}
\footnote{196}{Id.}
\footnote{197}{Id. at 769. In another vignette, the judge spoke about the requirement that the defendant believe her conduct was “necessary and reasonable.” While he spoke, two animations appeared. “The first depicted a man pointing a knife at a woman’s throat, she then looked around before kicking the man to the ground, apparently believing she had no choice.” \textit{Id.} The second showed the same characters, “but when three other people approached, the man dropped his knife. The woman still kicked him, but this time it was apparent that alternative action was possible.” \textit{Id.}}
\footnote{198}{Id. at 773. The law students failed to improve and the legally untrained subjects’ performance matched the law students’ performance levels. \textit{Id.}}
B. Allow Jurors to Ask Questions About the Law and the Facts

Allowing jurors to ask questions allows them to reason, to understand, and to learn. 199 Giving jurors knowledge goals and then allowing them to ask questions about the law will motivate jurors to acquire and organize new legal knowledge. 200 When jurors are given a knowledge goal—to learn the relevant substantive law—this goal will often take the form of questions when they have insufficient knowledge to deal with the facts in the case. 201 These knowledge goals will cause jurors to “focus on what he or she needs to know, to formulate questions in acquiring this knowledge, and to learn by pursuing these questions.” 202 Learning occurs when the juror’s questions are answered. 203 These knowledge goals, then, focus the learning process and direct learning. 204

Some courts allow juries to ask questions of witnesses, and a few states even require that jurors be permitted to ask questions. 205 Several studies have shown that asking questions is helpful to jurors’ understanding of the case, especially in cases where the evidence or law is particularly complex. 206 Specifically, asking questions allows jurors to clarify complicated testimony or legal

199. Ram, supra note 171, at 273; see also Claude Sammut & Ranan B. Banerji, Learning Concepts by Asking Questions, in 2 MACHINE LEARNING: AN ARTIFICIAL INTELLIGENCE APPROACH 167, 168 (Ryszard S. Michalski et al. eds., 1986) (noting that questions help students learn new material).

200. See Ram, supra note 171, at 274; see also Seijts & Latham, supra note 155, at 125 (noting that knowledge goals facilitate learning by focusing an individual’s attention on knowledge or skill acquisition).

201. See Ram, supra note 171, at 273.

202. Id. at 274.

203. Id. at 274–75.

204. Id. at 277.

205. For an overview of state law on juror questions, see State of the States Survey supra note 22, at 34–35. In a survey of 11,752 trials in all 50 states and the District of Columbia, 15.1% of state court trials allowed juror questions of witnesses, and 10.9% of federal trials allowed the practice. Id. The Federal Rules of Evidence do not prohibit or permit the practice. Id. at 4, 32. Rule 611(a) provides that “The court should exercise reasonable control over the mode and order of examining witnesses and presenting evidence so as to: (1) make those procedures effective for determining the truth; (2) avoid wasting time; and (3) protect witnesses from harassment or undue embarrassment.” FED. R. EVID. 611(a).

issues. Moreover, asking questions allows jurors to engage more actively in the presentation of testimony and to develop their understanding of the trial “story” because “the answers to juror questions appear to supplement and deepen juror understanding of the evidence.”

To the extent that jurors are like students who need to understand the law they will need to apply in a trial, questions allow jurors to clarify their understanding, correct confusion, and improve comprehension. In national field experiments of states that permitted and did not permit juror questions, jurors who were allowed to ask questions rated themselves as better informed about the law.

Opponents of juror questions point out that it can distract jurors, delay the trial process, and remove jurors “from their appropriate role as neutral fact finders.” Some judges also express concern that jurors might give undue weight to a judge’s decision not to permit a juror question. Studies of juror questions have shown, however, that questions do not add significant time to trials, and that jurors tend to focus their questions on the primary legal issues in the case. Furthermore, most of these potential problems are mitigated by procedures governing the asking of questions, including requiring judges and attorneys to screen questions before they are presented to witnesses. One study found that jurors rarely expressed surprise, let alone offense, when judges did not permit witnesses to answer a question.

Most courts that do permit juror questions, however, only allow questions about the facts of the case rather than about the law. When judges do receive a question from a juror about the law, they typically tell the juror they cannot answer the question, or they refer the juror to the jury instructions. But sometimes the jury instructions are not enough to clarify jurors’ understanding of the

207. Heuer & Penrod, supra note 206, at 262.
208. Diamond et al., supra note 206, at 1931.
209. Id. at 1931–32.
211. United States v. Ajmal, 67 F.3d 12, 14 (2d Cir. 1995).
213. Diamond et al., supra note 206, at 1931.
214. Id. at 1965–67.
215. Id. at 1933.
216. See generally id. (discussing juror questions and common courtroom practice).
217. See generally id. (discussing juror questions and common courtroom practice).
We should go further and allow jurors to ask questions when they are confused about the underlying substantive law. These questions could be answered by the judge, and like jurors’ questions of witnesses, the judge could serve as a gatekeeper, and all potential questions could be approved by the attorneys in the case to ensure that the questions are not unfairly prejudicial to either side. Furthermore, questions can signal to the judge and the lawyers in a case that jurors are unclear on an area of law. Although jurors are the triers of fact, asking questions about the law will help jurors to better understand the relevant law in order to make better decisions about the facts.

Finally, by letting jurors ask questions and giving them reasons for why the law should apply the way it does, we can motivate jurors to correctly apply the instructions they receive. As Professor Duane Wegener notes in Flexible Corrections, “it is not enough to simply tell jurors what the law requires; the judge’s instructions must sell them on the goal of adhering to the constraints of the law.” Research in other contexts has shown that giving jurors this kind of explanation does make them more likely to follow the judge’s instructions. For instance, one study found that when jurors were told that the compensatory damages they awarded would be trebled, they gave significantly lower awards, suggesting that jurors tended to lower their awards to avoid a windfall for plaintiffs. When the same jurors were told to ignore the trebling rule, the awards did not increase. However, when the jurors were told the rationale behind the trebling rule, the awards increased significantly.

Because jurors must acquire new knowledge about the law before they apply that law to the facts in a case, knowledge goals, which

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218. See id. at 1931–32.
219. For an example of a state statute that governs juror questions, see Nev. Rev. Stat. § 16.140 (2013) (noting that [juror questions] “shall be in the presence of or after notice to the parties or counsel.”).
221. Id. at 1949–50.
224. Id. at 534.
225. Id. at 513, 532, 534.
226. Id. at 534.
227. Id. at 533–34.
could be framed to focus jurors’ attention on learning the law, will be more effective than simply admonishing jurors to reach an accurate verdict.\textsuperscript{228} Furthermore, giving jurors knowledge goals and then allowing them to ask questions about the law may motivate jurors to avoid closure and to continue considering other possibilities and generating multiple hypotheses about events.\textsuperscript{229} If jurors are motivated to avoid closure in this way, this could lead to reliance on better reasoning strategies, fewer biases, and greater accuracy, thus improving juror decisionmaking.\textsuperscript{230}

\textit{C. Instruct Jurors to Complete Special Verdict Forms}

Jurors can be taught to know what they do not know, to assess how correct their decisions are, to efficiently use their own cognitive resources, and to monitor their own learning process.\textsuperscript{231} This process is known as metacognition, or “thinking about one’s own thinking,”\textsuperscript{232} and refers to the understanding and awareness that allows people to take control of their own learning.\textsuperscript{233} Because it is the juror who must ultimately store and retrieve the law, it is crucial that they be active participants in learning that law.\textsuperscript{234} If jurors are better able to think about their own thinking and their own understanding of the relevant law, they will make better decisions about the facts in a trial. Special verdict forms, which require jurors to explicitly consider how the facts in a case support each element of each claim and to explain the connection between law and facts,\textsuperscript{235} can help make jurors accountable for their decisions and therefore increase accuracy motives.\textsuperscript{236} In turn, this accountability can motivate jurors to be more complex in their thinking and more accurate in their judgment.\textsuperscript{237}

\textsuperscript{228} See discussion supra Part III.B; see generally Seijts & Latham, supra note 155, at 125 (noting that knowledge goals facilitate learning by focusing an individual’s attention on knowledge or skill acquisition).

\textsuperscript{229} See discussion supra Part II.B.

\textsuperscript{230} KUNDA, supra note 9, at 243; see discussion supra Part II.B.

\textsuperscript{231} Schwartz, supra note 150, at 376.

\textsuperscript{232} Id.

\textsuperscript{233} THOMAS A. ANGELO & K. PATRICIA CROSS, CLASSROOM ASSESSMENT TECHNIQUES, A HANDBOOK FOR COLLEGE TEACHERS 373 (2d ed. 1993); see Schwartz, supra note 150, at 376 (defining metacognition as “the set of learning and study skills which encourage learners to be introspective, conscious, and vigilant about their own learning”).

\textsuperscript{234} Schwartz, supra note 150, at 376.

\textsuperscript{235} FED. R. CIV. P. 49.

\textsuperscript{236} See discussion supra Part II.A.

\textsuperscript{237} See discussion supra Part II.A.
One way to increase efficient learning is to ask people to make effective self-explanations because explaining enhances understanding.238 “A self-explanation is a mental dialog that learners have when studying . . . [which] leads to an understanding that builds a complete and accurate mental model.”239 When people learn new information, they learn it more efficiently if they are asked to explain that new information to themselves.240 A good self-explanation requires deep processing of the material and can therefore improve performance.241 Furthermore, the positive effects of self-explanations have been seen in a variety of contexts and across age ranges.242 In a study testing the benefits of self-explaining, eighth-grade students read a passage about the human circulatory system.243 Half of the students then read the passage a second time while the other half were instead asked to self-explain what they had just read.244 All of the students took a test of the circulatory system before and after reading the passage.245 Students who self-explained learned more, and the students who generated the most self-explanations learned the most.246 As the authors noted,

238. RUTH CLARK ET AL., EFFICIENCY IN LEARNING: EVIDENCE-BASED GUIDELINES TO MANAGE COGNITIVE LOAD 226 (2006); see also Michelene T. H. Chi et al., Eliciting Self-Explanations Improves Understanding, 18 COGN. SCI. 439, 439 (1994) (establishing the self-explanation effect as a way to increase efficient learning and understanding).
239. CLARK ET AL., supra note 238, at 226–27.
240. Chi et al., supra note 238, at 441.
241. CLARK ET AL., supra note 238, at 228; SWELLER ET AL., supra note 162, at 188.
242. CLARK ET AL., supra note 238, at 228.
243. Chi et al., supra note 238, at 450–51. Specifically, the students were asked to read 101 separate sentences about the circulatory system and given the following instructions:

We would like you to read each sentence out loud and then explain what it means to you. That is, what new information does each line provide for you, how does it relate to what you've already read, does it give you a new insight into your understanding of how the circulatory system works, or does it raise a question in your mind. Tell us whatever is going through your mind—even if it seems unimportant. You may need to go back and re-read parts of the text to really understand all the material. Also, some people find it helpful, when reading difficult material, to draw a picture or take notes. Please feel free to do what is best for you . . . .

Id.
244. Id. at 451.
245. Id. at 450–51.
246. Id. at 457.
“not only does eliciting self-explanations promote greater learning, but the more students self-explain, the deeper their understanding.”  

Jurors can be asked to self-explain through the use of a special verdict form. Judges can require jurors to return a verdict in civil cases in three ways: a general verdict, a general verdict with interrogatories, or a special verdict. General verdicts ask jurors to declare the winning party and the relief granted; general verdicts with interrogatories ask jurors to give a general verdict and to answer specific factual questions; and special verdicts ask the jury to answer a series of factual questions that are relevant to the legal issues in the case. Although the Federal Rules of Civil Procedure describe special verdicts as requiring only “a special written finding on each issue of fact,” they often consist of mixed questions of law and fact. Because each question in a special verdict form refers to a specific fact necessary to satisfy each element of the legal claim, they require jurors to think about each element individually and help jurors think about the elements within the context of the factual case.

Special verdict forms can improve jurors’ metacognition and decisionmaking by highlighting the structure jurors should follow when they deliberate about complex concepts, and the self-explaining associated with special verdict forms can make jurors accountable for their decisions and motivate them to be more accurate. Moreover, if jurors are required to think through how the facts in a case support each element of each claim, they will be better able to recognize the quality of their own understanding of the law. Furthermore, special verdict forms could help prevent the

247. Id. at 470; see also Jan Hawkins & Roy D. Pea, Tools for Bridging the Culture of Everyday and Scientific Thinking, 24 J. FOR RES. IN SCI. TEACHING 291 (1987) (discussing innovations in science education, which encourage students to explain as a way of learning complex science).


249. FED. R. CIV. P. 49; Wiggins & Breckler, supra note 248, at 1–2 (finding partial support that special verdicts improved juror comprehension of instructions).

250. FED. R. CIV. P. 49; Wiggins & Breckler, supra note 248, at 3. The Federal Rules of Civil Procedure give judges a great deal of discretion to ask jurors to complete special verdict forms that use “any other method that the court considers appropriate.” FED. R. CIV. P. 49(a)(1)(C). Therefore, while some special verdict forms might ask the juror to determine the speed of a vehicle (question of fact), the form might instead ask how fast the defendant was driving and whether it was negligent to drive that speed down a residential street (mixed question of law and fact). Id.

251. Lieberman, supra note 27, at 144.

252. Id. at 145.
coherence effect, whereby jurors faced with complex legal concepts and ambiguous facts reduce complex decisions to more manageable decisions they can feel confident about. Special verdict forms can improve jury decisionmaking in both civil and criminal cases because the forms can help jurors isolate individual elements of claims and crimes, offsetting the potential coherence effect. In cases where there is substantial evidence for one element but only minimal or insufficient evidence for another, the coherence effect suggests that fact finders will find the defendant liable or guilty despite the lack of evidence of a particular element. “In such cases, correctly administered special verdicts could serve to expose that evidentiary deficiency.”

In studies examining the effect of special verdict forms on juror comprehension, mock jurors reported feeling more informed about the law, more confident that their verdict was correct, and more confident that their verdict reflected a proper understanding of the law. Jurors found special verdict forms to be especially helpful in cases involving large quantities of information. Other studies have found that although special verdict forms improved understanding of the law, they did not affect the jurors’ ultimate decisions, and that jurors made decisions based on their impression of the parties and not on an “orderly consideration of legal issues.” Of course, jurors were not told about the law until after the end of evidence, at which point they “appeared to have already formed strong impressions of the parties,” and special verdict forms did little to ameliorate this effect. If jurors are instead taught the law before the presentation of evidence, this effect can be minimized.

253. Simon, supra note 93, at 517.
254. Id. at n.283.
255. Id.
256. Id. As Professor Simon notes, special verdict forms would have some collateral effects, and there are concerns that special verdict forms impose restraints on jury nullification by restricting jurors’ rights to ignore instructions and decide cases independently. Id.
258. Id.
259. Wiggins & Breckler, supra note 248, at 32.
260. Id.
261. Of course, it is also important that special verdict forms, like all material given to jurors, incorporate psycholinguistic principles to ensure they are clear and understandable to jurors. See generally Brewer et al., supra note 193, at 766 (“Some studies have found that instructions rewritten according to psycholinguistic principles improved jurors’ understanding of the law . . . .”).
If jurors are taught to think about their own understanding of the law, they will make better decisions about the facts. We can encourage this juror metacognition by requiring jurors to complete special verdict forms that ask jurors to think about each element of each claim individually and to consider how they fit within the context of the factual case. This requirement will help increase jurors’ accountability for their decisions, increase their motive to be accurate, and lead to better decisionmaking.

CONCLUSION

Because juries are typically composed of lay people with no special legal training or background, jurors must first be educated about the applicable substantive law and procedural rules before they can reach a decision on the facts. The entirety of most jurors’ education on the law is contained in jury instructions, which tell jurors about the applicable law and give them a mechanism to interpret the facts they have seen in a trial. While the instructions are meant to teach jurors about the relevant law, they are not typically written with the jurors’ education in mind, nor do they generally offer much guidance to jurors for applying the law to the facts of the case in order to reach a decision. And while knowledge acquisition should be a major component of the jury’s task, jury research has consistently shown that jurors only understand about half of the law they are expected to apply to the facts in a trial.262

Extensive training in the law is not possible given the time constraints of a typical trial, but we can draw upon insights from studies of motivated cognition to motivate jurors to efficiently learn the law and to think carefully about how the law will apply to the facts they will see in a trial. All people are intrinsically motivated to make sense of their surroundings, and jurors are similarly motivated to understand the law they will need to apply to the facts in a trial in order to reach an accurate verdict. These core social motives affect the cognition and decisionmaking of all jurors, and we can use these motives to increase juror comprehension of the law and improve decisionmaking. Like other frameworks and biases that affect how people perceive and interpret information, we cannot eliminate this type of motivated cognition, but we can use it to motivate jurors to understand the law, to be accurate in that understanding, and to persist in thinking about the law until they reach a good decision.

262. See, e.g., Elkworx et al., supra note 24, at 219.