

## Beyond a Reasonable Doubt: Juries Don't Get It

*Hon. James A. Shapiro\* and Karl T. Muth\*\**

*Proof beyond a reasonable doubt has been de rigueur in criminal cases almost since the dawn of the republic. It is based on the premise that it is better to let several guilty people go free in order to save one innocent person from wrongful conviction.*

*The jury in a criminal case is not merely an audience. It is the central mechanism without which the wheels of American criminal justice cannot turn—and operates as the final safeguard against a grave error. However, while the Constitution describes the importance, composition, and role of the jury, it does not explicitly use the phrase “proof beyond a reasonable doubt.”*

*Though not mentioned in our founding document, proof beyond a reasonable doubt is “an ancient and honored aspect of our criminal justice system.” As such, this Article does not question its conceptual wisdom, but rather its jurisprudential implementation.*

*Yet the meaning of “beyond a reasonable doubt” is apparently not self-evident. Jurors constantly ask for definitions of beyond a reasonable doubt. Some jurisdictions allow such a definition. Some require it. Others forbid it entirely under the supposition that its meaning is obvious and requires no definition.*

*Juries are understandably curious and concerned about the meaning of “proof beyond a reasonable doubt.” They correctly assert to judges that it is not self-explanatory (despite many judges’ erroneous insistence to the contrary). This creates real and significant risk the standard under which defendants are convicted is constitutionally inadequate.*

*When jurors misapprehend how high the burden of proof beyond a*

---

\* Judge, Circuit Court of Cook County, Illinois. The author would like to dedicate this article to the real Judge Shapiro, his late father, former Ossining, New York Town Justice Edwin S. Shapiro. He would also like to thank Illinois Supreme Court Chief Justice Anne M. Burke, Chief Judge of the Circuit Court of Cook County Timothy C. Evans, Presiding Judge Grace G. Dickler, and Supervising Judge William Stewart Boyd for affording him an opportunity to co-author this article. Nancy Jack, retired Law Clerk, Illinois Supreme Court, offered helpful comments and suggestions on earlier drafts.

\*\* Lecturer in Law and Economics, Northwestern Pritzker School of Law and Northwestern University, respectively; karl.muth@law.northwestern.edu.

*reasonable doubt is, they are in danger of convicting the innocent, the gravest kind of mistake that is called "Type I error." When they let a guilty person go free, they commit a less serious kind of mistake called "Type II error." In fact, the theory behind proof beyond a reasonable doubt (letting several guilty people go free in order to save one innocent person) actually contemplates Type II error.*

*The authors posit that many jurors simply don't understand how high a burden of proof beyond a reasonable doubt is supposed to be. They propose redefining proof beyond a reasonable doubt to make it more intelligible to the average juror. They realize the beyond a reasonable doubt standard is veritably sacrosanct in American law, but they don't believe "that's the way it's always been" is a good reason to perpetuate a standard of proof that is unintelligible to the average juror. They suggest changing the burden to a two-step analysis: (1) Did the prosecutor prove each and every element of the crime charged? (2) If so, keeping in mind the extraordinary injustice in the possibility of convicting an innocent person, are you convinced to a moral certainty? The authors are convinced that if American law can somehow let go of its "beyond a reasonable doubt" tradition, the incidence of grievous Type I error will be much lower.*

I. ATTEMPTS TO DEFINE REASONABLE DOUBT .....	1033
II. REASONABLE DOUBT OR REASONABLE CONSENSUS? .....	1035
III. THE PROBLEM .....	1042
IV. THE SOLUTION .....	1044

The Due Process Clauses of the Fifth and Fourteenth Amendments to the United States Constitution require prosecutors to prove criminal defendants guilty beyond a reasonable doubt in order to secure a conviction.<sup>1</sup> "The standard of proof beyond a reasonable doubt . . . 'plays a vital role in the American scheme of criminal procedure,' because it operates to give 'concrete substance' to the presumption of innocence to ensure against unjust convictions, and to reduce the risk of factual error in a criminal proceeding."<sup>2</sup> It reflects the basic American value that it is

---

1. See, e.g., *Victor v. Nebraska*, 511 U.S. 1, 22 (1994) ("The Due Process Clause requires the government to prove a criminal defendant's guilt beyond a reasonable doubt . . ."); *In re Winship*, 397 U.S. 358, 364 (1970) ("[W]e explicitly hold that the Due Process Clause protects the accused against conviction except upon proof beyond a reasonable doubt of every fact necessary to constitute the crime with which he is charged.").

2. *Jackson v. Virginia*, 443 U.S. 307, 315 (1979) (quoting *In re Winship*, 397 U.S. at 363); see generally Anthony A. Morano, *A Reexamination of the Development of the Reasonable Doubt Rule*, 55 B.U. L. REV. 507 (1975).

better to let the guilty go free than to convict the innocent.<sup>3</sup>

“Proof beyond a reasonable doubt has traditionally been regarded as the decisive difference between criminal culpability and civil liability.”<sup>4</sup> At the same time, by impressing upon the factfinder the need to reach a subjective state of near certitude of the guilt of the accused, the standard symbolizes the significance that our society attaches to the criminal sanction and thus to liberty itself.<sup>5</sup> Although a juror must subjectively believe that a defendant has been proven guilty, that subjective belief must be based upon a reasoned, objective evaluation of the evidence, and a proper understanding of the quantum of proof necessary to establish guilt to a “near certitude.”<sup>6</sup>

Juries, however, have a difficult time truly comprehending the meaning of “beyond a reasonable doubt.”<sup>7</sup> It is particularly difficult for jurors to understand they must acquit a criminal defendant if the prosecution does not establish guilt beyond a reasonable doubt, even if they feel the defendant is “probably” guilty.<sup>8</sup> It is this conversion from the phrase “reasonable doubt” to a probability that repeatedly proves problematic. Jurors may well be reluctant to free someone accused of a serious and violent crime “merely” because the government didn’t prove beyond a reasonable doubt what they feel “in their hearts” is probably true.<sup>9</sup> But due process is served by nothing less than a juror’s understanding that he or she may not vote to convict a defendant based

---

3. See, e.g., *In re Winship*, 397 U.S. at 372 (Harlan, J., concurring) (noting the basic American value judgment that it is better to let the guilty go free than to convict the innocent); WAYNE LAFAVE & AUSTIN W. SCOTT JR., *HANDBOOK ON CRIMINAL LAW* § 8, at 46 (1972) (noting the public must know the innocent are not convicted for criminal law to maintain its ethical force); CHARLES T. MCCORMICK, *HANDBOOK OF THE LAW OF EVIDENCE* § 341, at 798 (Edward Cleary ed., 2d ed. 1972) (noting the societal belief that the guilty should go free rather than the innocent be found guilty).

4. *Jackson*, 443 U.S. at 315.

5. *Id.* (citing *In re Winship*, 397 U.S. at 372 (Harlan, J., concurring)).

6. *United States v. Hernandez*, 176 F.3d 719, 732 (3d Cir. 1999).

7. *Hernandez*, 176 F.3d at 728 (“Reasonable doubt is not an easy concept to understand, and it is all the more difficult to explain.”); *State v. Bennett*, 165 P.3d 1241, 1248 (Wash. 2007) (“We recognize that the concept of reasonable doubt seems at times difficult to define and explain.”); Walter W. Steele & Elizabeth G. Thornburg, *Jury Instructions: A Persistent Failure to Communicate*, 67 N.C. L. REV. 77, 88–94 (1988); David U. Strawn & Raymond W. Buchanan, *Jury Confusion: A Threat to Justice*, 59 JUDICATURE 478, 480–82 (1976) (discussing the results of a study showing that many jurors do not understand the law sufficiently); Norbert L. Kerr & Robert S. Atkin, *Guilt Beyond a Reasonable Doubt: Effects of Concept Definition and Assigned Decision Rule on the Judgments of Mock Jurors*, 34 J. PERSONALITY & SOC. PSYCH. 282, 285–86 (1976) (finding that fewer hung juries result when reasonable doubt is defined). John S. Siffert, *Instructing on the Burden of Proof and Reasonable Doubt*, 8 U. BRIDGEPORT L. REV. 365, 367 (1987) (discussing the lack of uniformity among the circuits in giving jury instructions).

8. *Hernandez*, 176 F.3d at 728.

9. *Id.*

upon a belief “that the defendant is *probably* guilty.”<sup>10</sup>

Some jurisdictions require the trial judge to instruct juries on the meaning of beyond a reasonable doubt,<sup>11</sup> some permit it,<sup>12</sup> and others proscribe it.<sup>13</sup> The Federal Constitution neither requires nor prohibits trial courts from defining the term “reasonable doubt.”<sup>14</sup> The sole requirement is that the trial court accurately instructs the jury on the “concept” that the state has the burden to prove the defendant guilty beyond a reasonable doubt.<sup>15</sup> The Supreme Court deferentially reviews the substance of reasonable doubt definitions and finds error only if there is a reasonable likelihood that the jury in fact understood the instruction to permit conviction based on proof below the reasonable doubt standard.<sup>16</sup>

---

10. *Id.* (quoting *Sullivan v. Louisiana*, 508 U.S. 275, 278 (1993)).

11. *See, e.g.*, *State v. Portillo*, 898 P.2d 970, 974 (Ariz. 1995) (“Pursuant to our supervisory authority and revisory jurisdiction . . . we instruct that in every criminal case trial courts shall give the reasonable doubt instruction that we set forth below.”); *Lansdowne v. State*, 412 A.2d 88, 93 (Md. 1980) (“[A] trial judge in a criminal case, must give an instruction correctly explaining ‘reasonable doubt’ if requested by the accused.”); *State v. Bennett*, 165 P.3d 1241, 1249 (Wash. 2007) (“We also exercise our inherent supervisory power to instruct Washington trial courts to use only the approved pattern instruction . . . to instruct juries that the government has the burden of proving every element of the crime beyond a reasonable doubt.”).

12. *See, e.g.*, *Hernandez*, 176 F.3d at 729 (permitting the definition but finding unconstitutional the subjective instruction, “[i]t’s what you in your own heart and your own soul and your own spirit and your own judgment determine is proof beyond a reasonable doubt.”); *United States v. Velasquez*, 980 F.2d 1275, 1278–79 (9th Cir. 1992) (concluding district courts have discretion whether to define reasonable doubt). *Compare* CAL. PENAL CODE § 1096 (West 2021) (“Reasonable doubt is defined as follows: ‘It is not a mere possible doubt; because everything relating to human affairs is open to some possible or imaginary doubt. It is that state of the case, which, after the entire comparison and consideration of all the evidence, leaves the minds of jurors in that condition that they cannot say they feel an abiding conviction of the truth of the charge.’”), with Judicial Council of California Criminal Jury Instruction No. 220 (“Proof beyond a reasonable doubt is proof that leaves you with an abiding conviction that the charge is true. The evidence need not eliminate all possible doubt because everything in life is open to some possible or imaginary doubt.”) (grudgingly approved in *People v. Pierce*, 91 Cal. Rptr. 3d 404 (Cal. Dist. Ct. App. 2009)); *see also* *Samford v. State*, 302 S.W.3d 552, 558 (Tex. App. 2009) (permitting definition despite precedent discouraging practice).

13. *See, e.g.*, *United States v. Glass*, 846 F.2d 386, 387 (7th Cir. 1988) (stating that reasonable doubt should not be defined and that the term must speak for itself as jurors know what the words mean).

14. *Victor v. Nebraska*, 511 U.S. 1, 22 (1994) (discussing that either with or without a definition, the jury instructions do not violate the Constitution); *see also* *Ramos v. Louisiana*, 140 S. Ct. 1390, 1421 (2020) (Thomas, J., concurring) (contending Sixth Amendment rights include protection against convictions on the basis of non-unanimous jury outcomes, which can only be met when there is no doubt).

15. *Victor*, 511 U.S. at 22; *see also* *Hopt v. Utah*, 120 U.S. 430, 439 (1887) (noting that “abiding conviction” as to guilt, without reference to moral certainty, correctly states government’s burden of proof).

16. *Victor*, 511 U.S. at 22; *see also* *Cage v. Louisiana*, 498 U.S. 39, 40–41 (1990) (disapproving of the definition that suggested a higher degree of doubt than is required for acquittal).

## I. ATTEMPTS TO DEFINE REASONABLE DOUBT

The prototypical definition of reasonable doubt was set forth by Chief Justice Shaw in *Commonwealth v. Webster*<sup>17</sup>: “It is that state of the case, which, after the entire comparison and consideration of all the evidence, leaves the minds of the jurors in that condition that they cannot say they feel an abiding conviction, to a moral certainty, of the truth of the charge.”<sup>18</sup> Over a half century later, in *State v. De Lea*,<sup>19</sup> Justice Smith of the Montana Supreme Court found no error in Chief Justice Shaw’s mid-nineteenth century definition, but found the definition of reasonable doubt more complicated than reasonable doubt itself:

I am inclined to think, despite the fact that the definition of ‘reasonable doubt’ . . . discussed [in the majority opinion] has been employed by the courts of this and other states for so many years, and has been approved, that it is not too late to discourage the practice of giving it to juries in criminal cases. It seems that the English language is inadequate to satisfactorily define the phrase ‘reasonable doubt.’ Some courts are not satisfied with the definition approved by this court. How, then, shall a jury of layman be guided or aided by it? Perhaps the reason why the words are difficult of explanation is because they are so ordinary and simple. At any rate, the definition, although the best that has ever been given and perhaps the best that can be framed, is so complicated and involved that it is more difficult to understand than are the words the meaning of which [the] courts have attempted to explain.

I do not think the words ‘reasonable doubt’ require explanation. I believe that any juror who has not the mental capacity to understand the words themselves could not possibly comprehend the definition given to them by the courts. How can it be said that a juror could not understand what is meant by a ‘reasonable doubt’ but would know the meaning of the words ‘an abiding conviction to a moral certainty,’ used in the definition? I think any intelligent juror will appreciate the scope of his duty when told that, before he is justified in arriving at a verdict of guilty, he must be satisfied of the guilt of the defendant from the evidence, beyond a reasonable doubt; and that no other or further charge should be given on this subject.

---

17. 59 Mass. 295, 320 (1850), *abrogated by* *Commonwealth v. Russell*, 23 N.E.3d 867 (Mass. 2015); *see also* Miller W. Shealy, Jr., *A Reasonable Doubt About “Reasonable Doubt”*, 65 OKLA. L. REV. 225, 230 (2013) (arguing for current adoption of Chief Justice Shaw’s mid-19th century definition).

18. *Webster*, 59 Mass. at 320. The Supreme Court has since cast doubt on the efficacy of “moral certainty” as part of a reasonable doubt definition. *See Cage*, 498 U.S. at 41 (“When [statements like ‘substantial’ and ‘grave’] are then considered with the reference to ‘moral certainty,’ rather than evidentiary certainty, it becomes clear that a reasonable juror could have interpreted the instruction to allow a finding of guilt based on a degree of proof below that required by the Due Process Clause.”).

19. 93 P. 814, 818–19 (Mont. 1908) (Smith, J. concurring).

I undertake to say that every honest juror who, upon the whole evidence, has in his heart a reasonable doubt of the defendant's guilt, will act upon it, without analysis or application of definition. He will unconsciously heed it without seeking to explain it. When his mind harbors a doubt that prevents his conscientiously voting guilty, that doubt will be expressed in a vote of acquittal.

I maintain, therefore, that we should give our trial judges credit for the integrity, learning, discretion, and consideration for their oaths of office that they in reality possess, and that our jurors should be treated as men of intelligence, and not as children.<sup>20</sup>

Perhaps jurors of the mid-nineteenth and early twentieth centuries were more intelligent than today's, because judging by their jury questions, many (if not most) of today's jurors are just not "getting it."

In *People v. Brigham*,<sup>21</sup> Justice Mosk, concurring with the majority, wrote:

Happily there is another alternative, a solution adopted by fully half of the states of the Union and long advocated by leading scholars. These authorities recognize that all attempts to define the phrase 'beyond a reasonable doubt' are at once futile and unnecessary. They are futile because, as we have seen, the definition is more complicated than the phrase itself and results in confusing rather than enlightening the jury; they are unnecessary because 'beyond a reasonable doubt' is not a technical legal term requiring learned explanation, but a phrase of common meaning and usage that is known to and understood by the average juror. From these premises both courts and Legislatures have concluded that in criminal cases the jury should simply be instructed on the presumption of innocence and the prosecution's burden of proving guilt beyond a reasonable doubt, with no effort being made to define the latter phrase.<sup>22</sup>

In *Victor v. Nebraska*,<sup>23</sup> Justice Ginsburg's concurrence explicitly endorsed the following definition from the Federal Pattern Criminal Jury Instructions:

Proof beyond a reasonable doubt is proof that leaves you firmly convinced of the defendant's guilt. There are very few things in this world that we know with absolute certainty, and in criminal cases the law does not require proof that overcomes every possible doubt. If, based on your consideration of the evidence, you are firmly convinced that the defendant is guilty of the crime charged, you must find him guilty. If on the

---

20. *Id.*

21. 599 P.2d 100 (Cal. 1979).

22. *Id.* at 116 (Mosk, J., concurring).

23. 511 U.S. 1 (1994).

other hand, you think there is a real possibility that he is not guilty, you must give him the benefit of the doubt and find him not guilty.<sup>24</sup>

This may be the best of the definitions, but the mere fact juries have to ask for a definition so often is evidence that “beyond a reasonable doubt” is “beyond” many of their comprehensions.<sup>25</sup> “Beyond a reasonable doubt” is an epistemological standard that most lawyers and judges can fathom, but most jurors cannot;<sup>26</sup> it is a standard lawyers and judges may simultaneously find easy to understand but find maddeningly difficult to adequately describe.

The Washington Supreme Court has adopted a definition from its pattern instructions: “A reasonable doubt is one for which a reason exists and may arise from the evidence or lack of evidence. It is such a doubt as would exist in the mind of a reasonable person after fully, fairly, and carefully considering all of the evidence or lack of evidence. [If, from such consideration, you have an abiding belief in the truth of the charge, you are satisfied beyond a reasonable doubt.]”<sup>27</sup>

## II. REASONABLE DOUBT OR REASONABLE CONSENSUS?

Fundamentally, there are two ways to conceptualize the mechanism of a jury: as a single unit making decisions, or as a democracy composed of twelve individual constituents—the caucus approach and the voter approach. In the caucus approach, the jury is simply a framework within which ideas converge and unanimity is achieved.<sup>28</sup> Meanwhile, in the voter approach, each person enjoys agency to offer input, object to others’ views, and interfere with unanimous outcomes.<sup>29</sup>

---

24. *Id.* at 22 (quoting Federal Judicial Center, Pattern Criminal Jury Instructions, 17–18 (Instruction 21)).

25. See Robert J. MacCoun & Tom R. Tyler, *The Basis of Citizens’ Perceptions of the Criminal Jury: Procedural Fairness, Accuracy, and Efficiency*, 12 LAW & HUM. BEHAV. 333, 334 (1988) (describing arguments surrounding the view that “lay jurors are not capable of comprehending the factual complexity inherent in much modern civil litigation”).

26. Valerie P. Hans, *Deliberation and Dissent: 12 Angry Men Versus the Empirical Reality of Juries*, 82 CHI.-KENT L. REV. 579, 588 (2007) (analyzing the way jurors understand instructions and how they react in a jury setting).

27. *State v. Bennett*, 165 P.3d 1241, 1243, 1249 (Wash. 2007) (reluctantly approving alternative instruction while exercising supervisory authority to tell Washington courts to use pattern instructions).

28. In this Article, authored post-*Ramos*, a requirement of unanimity is presumed. Empirical research performed on mock juries with different agreement thresholds is informative, but not explored in depth in this Article. For more on less-than-unanimous caucus approaches, see James H. Davis et al., *The Decision Processes of 6- and 12-Person Mock Juries Assigned Unanimous and Two-Thirds Majority Rules*, 32 J. PERSONALITY & SOC. PSYCH. 1 (1975).

29. “Unanimous” in this context refers to a universal agreement among jurors, not an agreement on all charges—importantly, the former is a requirement, and the latter is not. See FED. R. CRIM. P.

There are several reasons this distinction matters. The most obvious is that jurists or advocates who see the jury as a caucus responsible for reaching consensus will address and consider the jury differently from those who see it as a population of individual voters to be won over. Less obvious is the observation that “beyond a reasonable doubt” can be thought of, in the context of the voter approach, as “twelve out of twelve”<sup>30</sup> certainty.<sup>31</sup> Meanwhile, in the caucus approach, reasonable doubt loses this per capita quantification, the jury instead being a single entity trying to be sure with a high degree of certainty.

Importantly, the Supreme Court draws a distinction between “twelve out of twelve” and simply any unanimous verdict (five out of five, for instance).<sup>32</sup> While Justices Blackmun and Stevens conceded there is no magic in the number twelve, *Ballew v. Georgia* teaches the factfinding machine with twelve parts (the parts being jurors) computes justice more precisely than one equipped with only five parts.<sup>33</sup> Though the opinion does not explain or quantify what value the individual sixth, seventh, eighth, and so on juror contributes, *Ballew* shows a willingness of the Court to wrestle with these fractions seriously.<sup>34</sup> In other words, “twelve out of twelve” in a typical proceeding does not equal “nine out of twelve” in *Johnson*<sup>35</sup> or “five out of five” in *Ballew*. Nor would, it follows, “nine out of twelve” fairly be seen to contain within it a “nine out of nine”

---

31(b)(2) (“If the jury cannot agree on all counts as to any defendant, the jury may return a verdict on those counts on which it has agreed.”).

30. Justice Blackmun’s comments in *Ballew*, suggesting even a unanimous five-out-of-five jury, for instance, would substantially threaten the Sixth and Fourteenth Amendment guarantees of fairness. See *Ballew v. Georgia*, 435 U.S. 223, 229 (1978) (Blackmun, J.) (concluding juries smaller than six are not permissible in criminal matters); see also Brief of Law Professors and Social Scientists as Amici Curiae in Support of Petitioner at 7, *Ramos v. Louisiana*, 140 S. Ct. 1390 (2020) (No. 18-5924) (discussing the “twelve out of twelve” standard).

31. State jury verdicts for serious crimes must be unanimous in the United States. See *Ramos*, 140 S. Ct. at 1395 (concluding state juries must reach unanimous findings of guilty in serious criminal matters), *abrogating* *Apodaca v. Oregon*, 406 U.S. 404 (1972).

32. *Ballew*, 435 U.S. at 239 (asserting that while juries of twelve have no special wisdom or magic, juries must not be pared to numbers that harm justice or fairness (i.e., panels smaller than 6)).

33. See Carl E. Singley, *Ballew v. Georgia: Five Is Not Enough. For What?*, 52 TEMP. L.Q. 217, 249–50 (1979) (describing the “cautious words and phrases” used by Justice Blackmun when describing the data that “‘suggests’ that ‘progressively smaller’ juries are ‘less likely’ to foster ‘effective’ group deliberation”).

34. “The prosecution had to garner only nine votes of the 12-member jury to convict in a felony trial. The Court held that the statute did not violate the due process guarantee by diluting the reasonable doubt standard.” *Ballew*, 435 U.S. at 240 (Blackmun, J.) (expanding upon the Court’s discussion in *Johnson v. Louisiana*, 406 U.S. 356, 363 (1972)).

35. *Johnson*, 406 U.S. at 364.

unanimous result from a smaller jury that excluded the three contrary jurors.<sup>36</sup>

The Framers of the Constitution were deeply concerned<sup>37</sup> with the design<sup>38</sup> and implications of the American jury system, and perhaps no one more so than James Madison,<sup>39</sup> who felt he had a first-hand understanding of the English courts' injustices.<sup>40</sup> The Framers' most comprehensive discussion of jury trials occurs in one of Alexander Hamilton's treatises containing concerns and suggestions presumably addressed to John Jay.<sup>41</sup> Juries in criminal cases safeguard liberty,<sup>42</sup> Hamilton argues, and protect citizens<sup>43</sup> from arbitrary convictions, politically motivated prosecutions, and the whims of judges ("judicial despotism").<sup>44</sup> Hamilton feared power might be vested only in judges drawn from an elite and corrupt ruling class too socially, culturally, and economically distant from the citizenry.<sup>45</sup> This would lead to distrust and disrepute of the courts, as it had in the case of England's plutocratic law

---

36. See *Williams v. Florida*, 399 U.S. 78, 102–03 (1970) (concluding a criminal jury is not required to have twelve members, but the specific jury size is not without relevance or limitations).

37. See 2 JOSEPH STORY, COMMENTARIES ON THE CONSTITUTION OF THE UNITED STATES § 1779, at 540–41 (Thomas McIntyre Cooley ed., The Lawbook Exch., Ltd. 4th ed. 2008) (1873).

38. As to the purpose of the jury framework, see generally Letter from John Adams to William Stephens Smith (Dec. 21, 1786).

39. Letter from James Madison to Edmund Pendleton (Sept. 23, 1789).

40. *Id.*; see also 5 THE WRITINGS OF JAMES MADISON 154–59 (Gaillard Hunt ed., 1904) (discussing the value of lay persons in making decisions, and the injustices of the English government and court systems).

41. THE FEDERALIST NO. 83 (Alexander Hamilton).

42. *Id.* at 498 (Clinton Rossiter ed., 2003) ("The friends and adversaries of the plan of the convention, if they agree in nothing else, concur at least in the value they set upon the trial by jury; or if there is any difference between them it consists in this: the former regard it as a valuable safeguard to liberty; the latter represent it as the very palladium of free government.").

43. This concept of juries protecting not only the individual, but society's trust in the courts, is echoed in Blackstone; on his concern regarding any reduction or limitation of the matters on which juries are convened to deliberate, Blackstone writes, "though begun in trifles, the precedent may gradually increase and spread to the utter disuse of juries in questions of the most momentous concern." 2 WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND § 395, at 350–51 (William Carey Jones ed., Bancroft-Whitney Co. 1915) (1765) (cited in *Neder v. United States*, 527 U.S. 1, 39–40 (1999) (Scalia, J., concurring in part and dissenting in part)).

44. THE FEDERALIST NO. 83 *supra* note 41, at 498 (Clinton Rossiter ed., 2003).

45. William III attempted to address this issue by making judges service "tenure during good behavior," which the Framers saw as an insufficient safeguard. Act of Settlement 1700, 12 & 13 Will. III, c. 2, § 3 (Eng.); see also E. NEVILLE WILLIAMS, THE EIGHTEENTH CENTURY CONSTITUTION 59 (1960) (noting judges serve "quamdiu se bene gesserint" or as long as they behave themselves).

lords<sup>46</sup> and in older societies.<sup>47</sup> Juries were meant to diversify the pool of potential factfinders in the justice system.<sup>48</sup>

This hope for juror representation also suggests the “voter approach” may be closer to a Hamiltonian ideal. Why, after all, have twelve jurors rather than one or one hundred? While one hundred might be absurd and unwieldy,<sup>49</sup> if the goal is consensus and efficiency and the jury is considered as a single decision-making entity, a single empowered individual chosen from the citizenry might be just as good as twelve.<sup>50</sup> The concept of reasonable doubt as “twelve out of twelve” certainty<sup>51</sup> is particularly useful if one considers the concept of “justice” in criminal proceedings can be explained as a ratio: what is an acceptable ratio of innocent people convicted to guilty people set free?

Where convicting an innocent person is called “Type I error,”<sup>52</sup> a culpable person set free is called “Type II error.”<sup>53</sup> What proportion of Type I to Type II error is desired in our society or would be produced by

46. C. H. McIlwain, *The Tenure of English Judges*, 7 AM. POL. SCI. REV. 217, 218 (1913).

47. See generally Edward Van Dyke Robinson, *The Division of Governmental Power in Ancient Greece*, 18 POL. SCI. Q. 614 (1903).

48. The Supreme Court has stated this principle many times and in many ways—in, and well before, *Batson*. See, e.g., *Batson v. Kentucky*, 476 U.S. 79, 84 (1986) (finding a jury formed by excluding members according to race is no longer representative of community); *Smith v. Texas*, 311 U.S. 128, 130 (1940) (“It is part of the established tradition in the use of juries as instruments of public justice that the jury be a body truly representative of the community.”); *Strauder v. West Virginia*, 100 U.S. 303, 308 (1880) (noting the purpose of a jury is to assemble “the peers or equals of the person whose rights it is selected or summoned to determine”) *abrogated by Taylor v. Louisiana*, 419 U.S. 522 (1975); *accord Carter v. Jury Comm’n*, 396 U.S. 320, 330 (1970) (excluding certain community members “contravenes the very idea of a jury”).

49. Think: the trial of Socrates to 501 Athenians for impiety and corrupting the youth (although that jury apparently did not require unanimity to convict or sentence to death): “Legislative trials, since the trial of Socrates, have had an odious history. Legislative trials combine the functions of prosecutor and judge and deny to the accused the right to impartial and independent judgment. Legislative trials are subject to the influence of partisanship, passion and prejudice. Legislative trials are political trials. Let us remember that in the past legislative justice has tended to degenerate into mob injustice.” *United States v. Welden*, 377 U.S. 95, 122–23 (1964) (Douglas, J. dissenting) (quoting Benjamin V. Cohen, *When Men Fear to Speak*, *Freedom Withers on the Vine*, Address at the Indiana B’nai B’rith Convention (Sept. 27, 1953)).

50. *But see Ballew v. Georgia*, 435 U.S. 223, 232–33 (1978) (“Generally, a positive correlation exists between group size and the quality of both group performance and group productivity.”).

51. For a discussion of unanimous versus nonunanimous jury behavior, see Shari Seidman Diamond et al., *Revisiting the Unanimity Requirement: The Behavior of the Nonunanimous Civil Jury*, 100 NW. U. L. REV. 201, 208 (2006). For analogous scholarship in the civil context, accord Valerie P. Hans, *The Power of Twelve: The Impact of Jury Size and Unanimity on Civil Jury Decision Making*, 4 DEL. L. REV. 1, 22–28 (2001).

52. *Ballew*, 435 U.S. at 234 (“Statistical studies suggest that the risk of convicting an innocent person (Type I error) rises as the size of the jury diminishes.”) (parenthetical as in the original).

53. *Id.* (“[T]he risk of not convicting a guilty person (Type II error) increases with the size of the panel . . .”).

a “fair” society’s courts?<sup>54</sup> And this is precisely the question the Court poses in *Ballew*:

Statistical studies suggest that the risk of convicting an innocent person (Type I error) rises as the size of the jury diminishes. Because the risk of not convicting a guilty person (Type II error) increases with the size of the panel, an optimal jury size can be selected as a function of the interaction between the two risks.<sup>55</sup>

The following social science discussion may seem abstract or distant from typical law review narrative, but it is not merely an aside. Justice White considered theoretical and empirical evidence from social science frameworks in *Williams*,<sup>56</sup> and the Court considered research on the fairness of various outcomes from a six-person jury in *Colgrove*.<sup>57</sup> In *Ballew*, Justice Blackmun, writing for a plurality of the Court, cites seventeen pieces of legal and social science scholarship in a footnote before the first case citation;<sup>58</sup> the works of legal and social science scholars are not only relevant in theory, but cited in practice in the Court’s thinking about twelve out of twelve people reaching a conclusion that meets due process and reasonable doubt standards of certainty.

In this context, Type I error is a “false positive” or a “miscarriage of justice”<sup>59</sup> where a not-guilty defendant is found guilty. Meanwhile Type II error is a “false negative” or an “error of impunity”<sup>60</sup> wherein a culpable person is found to be not guilty. While reducing errors *generally* is certainly desirable, reducing Type I error *specifically* is understandably seen as a higher priority. One could interpret the reasonable doubt standard as a way of saying Type I error is to be avoided with a high degree of certainty while Type II error is acceptable in moderation.

Even the finest police officers will on occasion suspect innocent people of crimes, and some of these people will be arrested. Once detained, some

---

54. This is discussed in some length, conceptually and practically, in BRIAN FORST, ERRORS OF JUSTICE (Alfred Blumstein & David Farrington eds., 2004).

55. *Ballew*, 435 U.S. at 234 (internal citations omitted).

56. *Williams v. Florida*, 399 U.S. 78, 101–102, 105 (1970).

57. *Colgrove v. Battin*, 413 U.S. 149, 158–160 (1973).

58. See *Ballew*, 435 U.S. at 231 n.10 (“*Williams v. Florida* and *Colgrove v. Battin* . . . generated a quantity of scholarly work on jury size.”).

59. Used in the philosophical sense, not in the narrow sense of the exception to untimely Rule 60(b) motions.

60. See Robert M. Bohm, *Miscarriages of Criminal Justice*, 21 J. CONTEMP. CRIM. JUST. 196, 196 (2005) (“Errors of impunity refer ‘to a lapse of justice that allows a culpable offender to remain at large’ or, in some other way, escape justice.” (citation omitted)). For usage, see Edward R. Maguire et al., *Potential Unintended Consequences of the Movement Toward Forensic Laboratory Independence*, 18 POLICE Q. 272, 273–74 (2015) (“Errors of impunity involve failing to sanction, or imposing insufficient sanctions, on culpable offenders. . . . Any time we erroneously fail to sanction a guilty person, we are committing an error of impunity, which is analogous to a Type II error.”).

prosecutors will choose to seek indictments against some of these arrestees. Many of these people will be defendants in a criminal matter. The prevalence of Type I error, stated in the inverse, can be described with the query: How many innocent people, once arrested and tried, are convicted?

	<b>Jury Finding is Guilty</b>	<b>Jury Finding is Not Guilty</b>
<b>Defendant is Guilty</b>	Correct Finding	Type II Error
<b>Defendant is Innocent</b>	Type I Error	Correct Finding

It is important to note that Type I *and* Type II errors are minority outcomes in a functioning judicial system. In other words, in such a system, the majority of outcomes are guilty people found guilty and people not culpable correctly acquitted. But small amounts of error are substantial, and no injustice is insignificant. If mistakes can be prevented through more nuanced or precise jury instructions, this is a low-cost way to intervene before grave errors occur. For example, a judicial system that has 90% accuracy and splits its Type I and Type II errors 50/50, results in five innocent people convicted per one hundred people tried. On the other hand, the same error rate where Type II error makes up 80% of errors only convicts two people wrongly per one hundred defendants tried. Every error, but especially wrongful conviction, is tragic. And to the extent all errors, but particularly this type of error, can be prevented, we should take all reasonable, practicable, and affordable actions that contribute to that prevention.

In the caucus approach, the group of jurors must *collectively* be convinced they are not creating Type I error. However, in the voter approach, the jurors must *each individually* be convinced that he or she is not contributing to—or “voting for”—Type I error. Decades of experimental evidence supports the proposition that collective decision-making is substantially different from individual decision-making.<sup>61</sup> While situations where one choice is self-evidently correct are relatively

---

61. See, e.g., Attila Ambrus et al., *Group Versus Individual Decision-Making: Is There a Shift?* 2 (Inst. Advanced Study, Sch. Soc. Sci., Working Papers No. 91, 2009).

easy to resolve for either groups or individuals,<sup>62</sup> juries often face choices where reasonable minds can differ. Years of research illustrates that, generally, groups are more risk-averse than individuals and more cautious about making big mistakes (like convicting an innocent defendant) than absorbing losses that are considered less severe (like finding a culpable defendant not guilty).<sup>63</sup> Hence, the caucus jury is not only distinguishable from the voter jury, but—perhaps counterintuitively—more cautious and less likely to convict.<sup>64</sup> If the group and the individuals regard Type I errors as equally undesirable, the risk-averse caucus or group interpretation of “beyond a reasonable doubt” is, then, possibly *an even higher threshold* than a “twelve out of twelve” threshold in the voter model.

So grave is the Type I error outcome that it must be avoided with every tool available; this includes the use of clear and helpful—not merely descriptive—jury instructions to inform those who may or may not reach “twelve out of twelve” certainty about the defendant’s guilt “beyond a reasonable doubt.” And to further guard against miscarriages of justice, we require prosecutors to prove beyond a reasonable doubt *each element* of the offense,<sup>65</sup> not to simply paint a general picture of a defendant who is guilty or to suggest that one element has been so convincingly proven that another element need not be proven to the same high standard.<sup>66</sup>

While juries may wade through a sea of contradictory accounts and confusing facts to reach the right verdict in the vast majority of cases, “in other criminal prosecutions juries may disbelieve and convict the

---

62. Daniel Gigone & Reid Hastie, *The Common Knowledge Effect: Information Sharing and Group Judgment*, 65 J. PERSONALITY & SOC. PSYCH. 959, 961 (1993).

63. See generally the lineage of literature embracing Gary Charness et al., *Individual Behavior and Group Membership*, 97 AM. ECON. REV. 1340 (2007); see also Charles A. Holt & Susan K. Laury, *Risk Aversion and Incentive Effects*, 92 AM. ECON. REV. 1644 (2002); Norbert L. Kerr et al., *Bias in Judgment: Comparing Individuals and Groups*, 103 PSYCH. REV. 687, 713–14 (1996); David G. Myers & Sidney J. Arenson, *Enhancement of Dominant Risk Tendencies in Group Discussion*, 30 PSYCH. REP. 615, 616 (1972); Serge Moscovici & Marisa Zavalloni, *The Group as a Polarizer of Attitudes*, 12 J. PERSONALITY & SOC. PSYCH. 125, 134 (1969).

64. Robert S. Shupp & Arlington W. Williams, *Risk Preference Differentials of Small Groups and Individuals*, 118 ECON. J. 258, 272 (2008) (groups making decisions are more risk-averse than individuals making decisions in high-stakes situations).

65. *In re Winship*, 397 U.S. 358, 364 (1970) (“Lest there remain any doubt about the constitutional stature of the reasonable-doubt standard, we explicitly hold that the Due Process Clause protects the accused against conviction except upon proof beyond a reasonable doubt of every fact necessary to constitute the crime with which he is charged.”); see also *Sandstrom v. Montana*, 442 U.S. 510, 512 (1979) (“[T]he State [must] prove every element of a criminal offense beyond a reasonable doubt.”).

66. “[T]he facts proved must exclude ‘to a moral certainty’ every reasonable hypothesis of innocence.” *People v. Benzinger*, 324 N.E.2d 334, 335 (N.Y. 1974).

innocent. But the courts must minimize this danger.”<sup>67</sup> The Court recognizes that errors exist and that they are extraordinarily difficult to evaluate and repair *ex post*. The *Schlup* standard,<sup>68</sup> for instance, does not convene a fresh trial with twelve new factfinders to reach a new “twelve out of twelve” consensus. Nor does it ask whether the jury was correct in reaching a decision to convict. Rather, the *Schlup* standard<sup>69</sup> asks appellate judges whether “it is more likely than not that no reasonable juror would<sup>70</sup> have found petitioner guilty beyond a reasonable doubt,”<sup>71</sup> a difficult “pound of cure”<sup>72</sup> to administer for appellate judges. The best “ounce of prevention,” then, is prophylactic: to do everything we can to prevent convictions that result in innocent people being punished and to carry with us an “ever-present concern that justice not miscarry for the defendant.”<sup>73</sup>

### III. THE PROBLEM

The mere fact we have to *define* “beyond a reasonable doubt” suggests the term itself is ambiguous and beyond many jurors’ comprehension. Even in jurisdictions that do not permit definition, jury questions asking for one suggest the standard is out of reach for many of them.

While it is impossible to quantify the burden of proof in terms of percentage of certainty, comparison with other burdens of proof helps. The one burden of proof that is easy to quantify is the civil “preponderance of the evidence” standard. That burden is anything—the smallest imaginable fraction—over fifty percent. Such a standard would be equivalent to the average juror’s mere opinion that a criminal defendant committed the crime. Then there’s the intermediate “clear and

---

67. *Holland v. United States*, 348 U.S. 121, 128 (1954).

68. *See Schlup v. Delo*, 513 U.S. 298, 321–22 (1995) (applying the *Carrier* standard and requiring petitioner to show the constitutional violation “probably resulted in the conviction of one who is actually innocent” where defendant-petitioner’s life is at risk, but repairing such error does not require convening fresh trial with fresh jury).

69. Note this is an issue of jury error, not of the “actual innocence” contemplated in *Sawyer*. *Sawyer v. Whitley*, 505 U.S. 333, 336 (1992).

70. Sometimes erroneously cited as “could” rather than “would.” *See, e.g., Reeves v. Nooth*, 294 Or. App. 711, 737 (2018); *Goldblum v. Klem*, 510 F.3d 204, 231 (3d Cir. 2007). It appears the source of the error would be from the similarity with the insufficiency of evidence standard established in *Jackson v. Virginia*, which asks whether “any rational trier of fact could have found the essential elements of the crime beyond a reasonable doubt.” 443 U.S. 307, 319 (1979). *See also Rivas v. Fischer*, 687 F.3d 514, 542 (2d Cir. 2012) (discussing the linguistic implications of the difference between “could” in the *Jackson* standard and “would” in the *Schlup* standard).

71. *See Schlup*, 513 U.S. at 327 (“*Carrier* requires a petitioner to show that he is ‘actually innocent.’”).

72. Benjamin Franklin, *On Protection of Towns from Fire*, PA. GAZETTE, Feb. 4, 1735.

73. *Commonwealth v. Azar*, 760 N.E.2d 1224, 1226 (Mass. 2002).

convincing” burden used in some types of cases.<sup>74</sup> While that burden, like beyond a reasonable doubt, is impossible to accurately quantify in percentage terms, many think of it as approximately 75% certainty.<sup>75</sup> And we know that beyond a reasonable doubt is a significantly higher standard than clear and convincing evidence.

When one compares the beyond a reasonable doubt standard to a factfinder being “clearly convinced” of the truth of something, beyond a reasonable doubt should be upward of 90% certainty. But many (if not most) jurors invariably minimize this standard because they are reluctant to “let go” a defendant who actually committed the crime. In other words, many jurors are less willing to commit Type II error than Type I error. In fact, prosecutors are trained to subtly minimize their burden of proof by purporting to embrace it in opening statement and closing argument, while telling the jury it is “the same burden we have in every criminal case.”<sup>76</sup> In effect they are telling jurors if the burden were so high, there would never be any criminal convictions.

The strong suspicion is that juries are convicting on evidence that is truly less than beyond a reasonable doubt.<sup>77</sup> It is true that a defendant convicted on evidence that is less than beyond a reasonable doubt has the right to appeal on that ground. However, that right is virtually meaningless, as the defendant’s burden on appeal is to show that “no rational trier of fact could find guilt beyond a reasonable doubt.”<sup>78</sup> That has become a virtually insurmountable burden, as most appellate judges are reluctant to second-guess a jury’s verdict by essentially calling it irrational. Consequently, trial juries effectively have the final say on whether the prosecution proved its case beyond a reasonable doubt. The collective subjectivity of what a jury deems to be proof beyond a

---

74. See, e.g., *Santosky v. Kramer*, 455 U.S. 745, 747–48 (1982) (noting clear and convincing evidence is required to terminate parental rights); *Addington v. Texas*, 441 U.S. 418, 433 (1979) (noting the same is required in involuntary commitment proceedings).

75. See, e.g., *Colorado v. New Mexico*, 467 U.S. 310, 316 (1984) (characterizing the clear-and-convincing evidence standard as one that “could place in the ultimate factfinder and abiding conviction that the truth of its factual contentions are ‘highly probable’” (citing CHARLES T. MCCORMICK, *HANDBOOK OF THE LAW OF EVIDENCE* § 320 (1954)); *Evidence*, BLACK’S LAW DICTIONARY (11th ed. 2019) (“[C]lear and convincing evidence [is] [e]vidence indicating that the thing to be proved is highly probable or reasonably certain. This is a greater burden than preponderance of the evidence, the standard applied in most civil trials, but less than evidence beyond a reasonable doubt, the norm for criminal trials.”).

76. In fact, one of the coauthors was trained to so argue when he was at the U.S. Attorney’s office in Chicago.

77. As anecdotal evidence of this, one of the authors once asked a North Carolinian who had served on criminal juries what percentage certainty he believed beyond a reasonable doubt to be. He responded, “Sixty percent.”

78. *Jackson v. Virginia*, 443 U.S. 307, 317, 319 (1979).

reasonable doubt essentially dwarfs the more objective “no rational trier of fact” standard on appeal.

#### IV. THE SOLUTION

One solution is to put the beyond a reasonable doubt standard into terms that the average juror can understand. Since most jurors seem to focus on whether they think the defendant really committed the crime or not, regardless of whether the prosecution actually proved beyond a reasonable doubt that he did it, the first “juror-friendly” question in the analysis could be, “Do you believe the prosecution proved every element of the crime it charged the defendant with committing?” But in order to minimize the danger of convicting the innocent (Type I error), as the reasonable doubt standard purports to do, we could further instruct the jury, “Keeping in mind the extraordinary injustice in the possibility of convicting an innocent person,<sup>79</sup> are you convinced to a moral certainty?”<sup>80</sup>

This solution both puts the burden instruction in terms the average juror can understand, while emphasizing to that average juror the importance of avoiding Type I error. Hopefully, with this instruction, jury questions about the burden will be less frequent, and different jurisdictions will not have to have different rules about whether to define the burden. It will finally be self-defining.

The authors realize how difficult, if not impossible, it would be to wean the republic off a standard to which it has adhered and become accustomed for well over two centuries. However, “that’s the way it’s always been done” should never be a rationale for continuing to do it that way, especially if the way it’s always been done is wrong and leads to convicting the innocent. Rather, it is the definition of insanity.<sup>81</sup>

---

79. In *Victor*, Justice Blackmun observed that “a central purpose of the instruction is to minimize the jury’s sense of responsibility for the conviction of those who may be innocent.” *Victor v. Nebraska*, 511 U.S. 1, 35 (1994) (Blackmun, J., dissenting).

80. *Cage v. Louisiana*, 498 U.S. 39, 40 (1990); see also *Commonwealth v. Costley*, 118 Mass. 1, 24 (1875) (Proof to “moral certainty” is equivalent to proof beyond “reasonable doubt”). “[W]hen we declare . . . such a thing to be morally certain, because it has been confirmed by creditable [w]itnesses . . . [this] moral [c]ertitude is nothing else but a strong [p]resumption grounded on probable reasons, and which very seldom fails and deceives us.” 1 SAMUEL VON PUFENDORF, *OF THE LAW OF NATURE AND NATIONS* § 11, at 24 (Jean Barbeyrac ed., Basil Kennett trans., London, J. Walthoe, R. Wilkin, J. and J. Bonwicke, S. Birt, T. Ward, & T. Osborne 4th ed. 1749).

81. Although the quote, “The definition of insanity is doing the same thing over and over again and expecting a different result” is often attributed to Albert Einstein, the attribution is apparently apocryphal. See Daniel D’Addario, “*The Definition of Insanity*” is the Most Overused Cliché of All Time, SALON (Aug. 6, 2013, 6:33 PM), [https://www.salon.com/2013/08/06/the\\_definition\\_of\\_insanity\\_is\\_the\\_most\\_overused\\_cliche\\_of\\_all\\_time/](https://www.salon.com/2013/08/06/the_definition_of_insanity_is_the_most_overused_cliche_of_all_time/) [<https://perma.cc/Q5VQ-ZKZT>].