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Second-Order Proof Rules

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SECOND-ORDER PROOF RULES

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Abstract

Proof rules in law dictate when facts have been proven. They do so by specifying a level of proof such as by a preponderance of the evidence, by clear and convincing evidence, or beyond a reasonable doubt. The goals of the rules are to minimize errors (accuracy) and to allocate the risk of error fairly. I argue that the current rules fail to serve these two goals. Rather than suggesting we abandon these well-entrenched rules, I propose and argue for "second order" proof rules that will better align decision-making with its goals by providing criteria for applying the current rules. The second-order rules have the potential to improve not only factual decision-making at trial but also decisions implementing procedural rules that depend on judgments about the "sufficiency of the evidence." These procedural rules include summary judgment and judgment as a matter of law in civil cases and sufficiency challenges by criminal defendants.

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I. INTRODUCTION

Proof rules in law specify when a disputed fact has been proven. They function as decision-making rules by instructing jurors and judges when to conclude, based on the evidence, that a fact has been proven. They carry out this function by specifying a level or standard of proof: "beyond a reasonable doubt," "by a preponderance of the evidence," or "by clear and convincing evidence."[1] Although proof rules are the most familiar example of decision rules in law, decision rules are not limited to proof rules and are a pervasive feature of law in general.[2]

Imposing general rules on decision-making reflects policy choices. Rules are made, adopted, and justified for underlying *reasons*, and in any given case these reasons might be better served by bypassing the *rule* and examining directly how the case fits with the reasons. The decision to impose a rule, rather than simply appealing to underlying reasons, thus must itself be justified. And a number of considerations may justify *this* decision, including: guiding, constraining, and easing the decision-making process, as well as providing authority to the jurisdictionally proper decisionmaker.[3] These considerations underlie the proof rules in law.

Factual disputes inevitably involve decision-making errors. How can such errors be minimized? How should the risk of error be allocated among the parties? These considerations may be left to be worked out by each judge or jury on a case-by-case basis or they may be the subject of general rules.[4] The law adopts the latter strategy.[5] As discussed more fully below, the "preponderance" rule in civil cases expresses a choice to treat

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1. Nothing in my analysis depends on a distinction between "rules" and "standards." I use "rule" to refer to any legal directive, including directives that employ "standards." Later in this Article, I return to the rules-standards distinction, but only as a way of clarifying the analysis. In short, nothing turns on a choice of labels. *See infra* Part IV.C.

2. *See, e.g.*, Mitchell N. Berman, *Constitutional Decision Rules*, 90 VA. L. REV. 1 (2004) (demonstrating the ubiquity of decision rules in constitutional law doctrine).

3. FREDERICK SCHAUER, PLAYING BY THE RULES: A PHILOSOPHICAL EXAMINATION OF RULE-BASED DECISION-MAKING IN LAW AND IN LIFE 135–66 (1991) (discussing the justifications for adopting rules).

4. The decision to adopt a rule is thus itself a "second order" decision. Cass R. Sunstein & Edna Ullman-Margalit, *Second-Order Decisions*, 110 ETHICS 5, 7 (1999) (defining second-order decisions as "decisions about the appropriate strategy for reducing the problems associated with making a first-order decision."). This Article will propose "second order" rules that apply to already established first-order rules (which themselves apply to first-order decisions).

5. Santosky v. Kramer, 455 U.S. 745, 757 (1982) ("Standards of proof, like other 'procedural due process rules[,] are shaped by the risk of error inherent in the truth-finding process as applied to the *generality of cases*, not the rare exceptions.' Since the litigants and the factfinder must know at the outset of a given proceeding how the risk of error will be allocated, the standard of proof necessarily must be calibrated in advance." (quoting Mathews v. Eldridge, 424 U.S. 319, 344 (1976))); *see also* ALEX STEIN, FOUNDATIONS OF EVIDENCE LAW xi (Oxford University Press 2005) ("There is no moral, political, or economic justification for authorizing individual adjudicators . . . to allocate the risk of error as they deem fit.").

parties roughly equally with regard to the risk of error and to attempt to minimize total errors.[6] The "beyond a reasonable doubt" decision rule in criminal cases—and to a lesser extent the "clear and convincing" rule in civil cases—expresses a choice to allocate more of the risk of error (or expected losses) away from defendants.

In this Article, I argue that the proof rules fail to serve their purported goals concerning error minimization and allocation. I propose and argue for a solution in the form of "second order" proof rules. A second-order proof rule instructs decisionmakers how to apply "first order" rules. Thus, a second-order rule in this context instructs judges and juries when to conclude that a fact has been proven by a preponderance of the evidence, by clear and convincing evidence, or beyond a reasonable doubt.[7]

The significance of second-order rules occurs on two levels. First, they potentially improve fact-finding at trial by better aligning conclusions with the underlying goals of the proof rules. Second, the rules also have wide-ranging significance for procedural devices that depend on the sufficiency of evidence. These devices include summary judgment,[8] judgment as a matter of law in civil cases,[9] and sufficiency challenges by criminal defendants.[10] As discussed below, the standards for implementing these civil and criminal procedural rules depend on the underlying proof rules. Thus, by bringing clarity to the proof rules, the second-order rules also bring needed clarity to applications of these procedural devices. The second-order rules provide wide-ranging significance at the procedural level by guiding and constraining decision-making on whether parties get to trial in the first place, whether verdicts will be overturned or upheld, and

6. The risk is allocated "roughly" equally because plaintiffs bear the slightly additional risk of cases ending in a "tie," or cases in which the evidence is in equipoise. Alternatively, the preponderance rule may be viewed as an attempt to minimize the total expected costs of adjudicative errors. *See generally* David H. Kaye, *Clarifying the Burden of Persuasion: What Bayesian Decision Rules Do and Do Not Do*, 3 INT'L J. EVIDENCE & PROOF 1 (1999) (adopting an expected-losses approach to proof rules).

7. A note on terminology may be helpful. As I use it, a "second order" rule is simply a rule that guides the application of another rule or rules. It may do so in a variety of ways—for example, by providing a rule for interpreting the underlying rule; by declaring some applications to be legitimate or illegitimate; or by specifying who does and does not possess authority to apply the underlying rule. A second-order rule is thus more specific than a second-order decision. The decision to adopt a rule in the first place may be a second-order decision. *See* Sunstein & Ullman-Margalit, *supra* note 4, at 7. My use also differs from what Lea Brilmayer has referred to as "second order" evidence (i.e., propositions about evidence). *See* Lea Brilmayer, *Second-Order Evidence and Bayesian Logic*, 66 B.U. L. REV. 673, 673–74 (1986). My use also differs from the use of "second order" in the domain of logic. *See* Herbert B. Enderton, *Second-order and Higher-order Logic*, *in* STANFORD ENCYCLOPEDIA OF PHILOSOPHY (2009), *available at* http://plato.stanford.edu/entries/logic-higher-order/.

8. FED. R. CIV. P. 56.

9. FED. R. CIV. P. 50.

10. FED. R. CRIM. P. 29; Jackson v. Virginia, 443 U.S. 307 (1979).

whether a party's constitutional rights are protected.[11]

This Article proceeds in five Parts. Part II discusses the goals and functions of proof rules. Part III demonstrates the failures of current proof rules in light of their goals. Part IV presents second-order rules and explains how they bring the first-order rules in line with these goals. Part V discusses how to operationalize the second-order rules at trial and for sufficiency-of-the-evidence reviews. Part VI concludes with some implications of the analysis.

II. THE GOALS AND FUNCTIONS OF PROOF RULES

Decisions regarding factual disputes take place under conditions of uncertainty.[12] By dictating outcomes under these conditions, proof rules serve two functions: (1) to minimize total errors or certain types of errors, and (2) to allocate the risk of erroneous decisions between the parties.[13] The first function fosters the fundamental goal of adjudication: truth or factual accuracy.[14] The second function fosters the goal of either equalizing the risk of error among the parties or minimizing the risk for one side.[15]

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11. These rights include criminal defendants' due-process right that criminal convictions must be supported by sufficient evidence, *see Jackson*, 443 U.S. at 319, and Seventh Amendment jury-trial rights of civil litigants, *see* U.S. CONST. amend. VII.

12. *See* MCCORMICK ON EVIDENCE § 341 (John W. Strong ed., 5th ed. 1999) (1954) ("[A] lawsuit is essentially a search of probabilities. A margin of error must be anticipated in any such search. Mistakes will be made . . . .").

13. *See* Santosky v. Kramer, 455 U.S. 745, 755 (1982) (explaining that proof rules involve judgments about "the weight of the private and public interests affected" and "a societal judgment about how the risk of error should be distributed between the litigants"); Addington v. Texas, 441 U.S. 418, 423 (1979) (explaining that a proof rule "serves to allocate the risk of error between the litigants and to indicate the relative importance attached to the ultimate decision"); *In re* Winship, 397 U.S. 358, 370 (1970) (Harlan, J., concurring) (explaining that proof rules "reflect a very fundamental assessment of the comparative social costs of erroneous factual determinations"). For discussions of these functions, see STEIN, *supra* note 5, at 134; Michael L. DeKay, *The Difference Between Blackstone-Like Error Ratios and Probabilistic Standards of Proof*, 21 LAW & SOC. INQUIRY 95, 125–26 (1996); David Hamer, *Probabilistic Standards of Proof, Their Complements and the Errors that are Expected to Flow from Them*, 1 U. NEW ENG. L. J. 71 (2007); Erik Lillquist, *Recasting Reasonable Doubt: Decision Theory and the Virtues of Variability*, 36 U.C. DAVIS L. REV. 85, 147–62 (2002); Neil Orloff & Jery Stedinger, *A Framework for Evaluating the Preponderance-of-the-Evidence Standard*, 131 U. PENN. L. REV. 1159 (1983); *see generally* Kaye, *supra* note 6 (conceptualizing proof rules in terms of total expected losses).

14. *See* FED. R. EVID. 102; *see also* WILLIAM TWINING, RETHINKING EVIDENCE: EXPLORATORY ESSAYS 73 (1994) ("Establishing the truth . . . is a necessary condition for achieving justice in adjudication; incorrect results are one form of injustice."). This role of proof rules is sometimes overlooked when analyzing them, with focus directed more toward the distribution of errors or the rate of certain types of errors (e.g., false convictions in criminal cases) rather than on the utilities of different types of accurate outcomes. For a discussion of this point in the criminal context, see Ronald J. Allen & Larry Laudan, *Deadly Dilemmas*, 65 TEXAS TECH L. REV. 65, 75–80 (2008).

15. I distinguish the "functions" of proof rules from their "goals." The functions concern how they operate to (or the means by which they) achieve their goals. *See* PETER ACHINSTEIN, THE NATURE OF EXPLANATION 280 (1983) ("Functions are intimately related to ends of certain kinds, and

To illustrate these two functions, consider the following simplified example. Suppose Andy claims that he and Betty entered into a contract, and she denies doing so. To resolve this dispute, the law assigns the burden of proof to one party—e.g., Andy.[16] He must produce sufficient evidence to support his claim, which is met by producing enough evidence to satisfy the burden of persuasion.[17] To meet the burden of persuasion, Andy must satisfy the proof rule.

Now, suppose the proof rule requires that Andy persuade the decisionmaker to a level of "certainty." Under this rule, if there is any doubt as to whether the parties entered into a contract, Andy will lose. Any uncertainty will therefore benefit Betty. There is a reciprocal relationship between Andy and Betty—the harder it is for Andy to win, the easier it is for Betty to win, and vice versa. This reciprocal relationship illuminates the first function of proof rules: allocating the risk of error. When Andy must prove with certainty that a contract was made, he bears the entire risk of error. Because a decision when the evidence is uncertain will be for Betty, an error in this case will favor Betty and go against Andy.[18] If the proof burden lowers, Andy will bear less risk of error and Betty will bear a correspondingly greater amount.[19] By lowering the burden the proof rule requires, a decision may go against Betty even when the facts are uncertain.

In addition to allocating risk, the second function of decision rules is to minimize total errors or certain types of errors. Raising the level of proof for one party (e.g., Andy) has, other things being equal, the consequence of lowering the risk of error for the other party (e.g., Betty). Thus, by minimizing one type of error (e.g., false positives, which favor plaintiffs), the level of proof ought to shift accordingly. But, given the reciprocal relationship, doing so will raise the likelihood of errors on the other side (e.g., false negatives, which favor defendants). The choice among possible decision rules will thus involve a choice of whether one type of error should be minimized at the expense of the other.[20]

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the items to which functions are attributed are means to those ends.").

16. Plaintiffs and prosecutors typically have the burden of proof for the elements of claims or crimes, and defendants typically have the burden of proof for affirmative defenses.

17. John T. McNaughton, *Burdens of Production of Evidence: A Function of the Burden of Persuasion*, 68 HARV. L. REV. 1382, 1382 (1955).

18. Errors under this rule will be all false negatives, i.e., failures to find a contract when one was in fact made. A proof rule of "certainty" would have the problematic consequences that virtually no plaintiff could win in a civil case and virtually no criminal defendant could be convicted. Under a "certainty" rule, the criminal and civil litigation systems would fail; settlements and plea bargains would break down; wrongs would not be righted; and the law would fail to deter. A second option might be to hold off deciding until certainty is achieved; however, litigation (and justice) requires that a relatively timely decision be made, even in the face of factual uncertainty. A decision not to decide is, in effect, a decision for the status quo.

19. Cruzan v. Missouri Dep't of Health, 497 U.S. 261, 283 (1990) ("The more stringent the burden of proof a party must bear, the more that party bears the risk of an erroneous decision.").

20. The choice among rules will therefore involve some assessment of the costs or losses

To minimize the total (expected) number of errors, the decision rule should require a finding for whichever side's position is better supported by the evidence. Assuming the evidence is a good indicator of truth, findings better supported by the evidence will produce fewer overall errors than reaching conclusions less supported by the evidence. Decisionmakers will "maximize the total number of correct decisions by treating their best chances of arriving at the factually correct result as decisive."[21]

The analysis thus far is subject to three limitations. First, the number and types of errors produced will depend upon the number of truly deserving parties on each side.[22] Consider two extreme examples. If every plaintiff who went to trial deserved to win and every defendant deserved to lose, then—regardless of the proof rule—the only possible errors would be erroneous findings for defendants. Likewise, if all criminal defendants were in fact guilty, then the possible errors would go in one direction only. The actual number of errors will depend as an empirical matter on the ratio of deserving plaintiffs and defendants. Second, the number and types of errors will depend on the quality of the evidential base on which decisions are made.[23] If the evidence is either so poor or systematically skewed in favor of one side, then this may affect both the number and types of errors. Finally, if evidence is significantly misinterpreted by decisionmakers, then this could likewise alter the number and types of errors.

Different proof rules express different policy preferences with regard to error allocation and error minimization. The decision rule in civil cases of

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associated with different types of errors. As Justice Harlan explained in *In re Winship*:

> If, for example, the standard of proof for a criminal trial were a preponderance of the evidence rather than proof beyond a reasonable doubt, there would be a smaller risk of factual errors that result in freeing guilty persons, but a far greater risk of factual errors that result in convicting the innocent. Because the standard of proof affects the comparative frequency of these two types of erroneous outcomes, the choice of the standard to be applied in a particular kind of litigation should, in a rational world, reflect an assessment of the comparative social disutility of each.

397 U.S. 358, 371 (1970) (Harlan, J., concurring).

21. *See* STEIN, *supra* note 5, at 144. Stein explains:

> [T]he error-minimizing objective treats every error as a fixed disutility unit (u). Consequently, there is no difference between errors that harm defendants (false positives) and errors that harm claimants or prosecutors (false negatives). Under this assumption, utility demands that a party whose case has a probability P prevails whenever $Pu > (1\text{-}P)u$, that is whenever $P > 0.5$.

STEIN, *supra* note 5, at 143–44.

22. *See* LARRY LAUDAN, TRUTH, ERROR, AND CRIMINAL LAW: AN ESSAY IN LEGAL EPISTEMOLOGY 73 (Cambridge University Press 2006) (arguing that "the ratio of errors in real trials" depends on "[t]he distribution of truly innocent and truly guilty defendants who go to trial."); *see also* Ronald J. Allen, *Rationality, Algorithms, and Juridical Proof: A Preliminary Inquiry*, 1 INT'L J. EVIDENCE & PROOF 254, 255 (1997).

23. *See* LAUDAN, *supra* note 22, at 73.

a "preponderance of the evidence" reflects the preference for treating plaintiffs and defendants roughly equally with regard to error allocation. As the Supreme Court has explained, "the preponderance-of-the-evidence standard results in a roughly equal allocation of the risk of error between litigants,"[24] noting that "[a]ny other standard expresses a preference for one side's interests."[25] This further reflects the view that the importance or cost of an error against one side is roughly equivalent to an error against the other side.[26] Given the above limitations, however, we do not know whether the rule will in fact equalize errors (or their costs). In the absence of this information, the preponderance rule expresses the important procedural value of treating the parties equally at the start of the process.[27] Moreover, subject to the above limitations, the preponderance rule also will minimize total errors.[28]

The proof rule in criminal cases of "beyond a reasonable doubt" (BARD) reflects a preference for protecting criminal defendants with regard to the risk of error. By requiring that the prosecution prove each element of a crime BARD, the prosecution bears a greater risk of error than civil plaintiffs under the preponderance rule.[29] This greater risk includes any situation in which an element has been proven by a preponderance, but

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24. Grogan v. Garner, 498 U.S. 279, 286 (1991) (presuming that this rule applies in civil actions unless "particularly important individual interests or rights are at stake") (internal citations omitted).

25. Herman & Maclean v. Huddleston, 459 U.S. 375, 390 (1983).

26. *In re* Winship, 379 U.S. 358, 371 (1970) (Harlan, J., concurring) ("In a civil suit between two private parties for money damages, for example, we view it as no more serious in general for there to be an erroneous verdict in the defendant's favor than for there to be an erroneous verdict in the plaintiff's favor."). This equalizing function can be conceived of in terms of equalizing the number of errors, *see generally* STEIN, *supra* note 5 (conceiving an equalizing function in terms of equalizing the number of errors), or in terms of equalizing error costs, *see* David Kaye, *Naked Statistical Evidence*, 89 YALE L.J. 601, 604–06 (1980) (reviewing MICHAEL FINKELSTEIN, QUANTITATIVE METHODS IN LAW: STUDIES IN APPLICATION OF MATHEMATICAL PROBABILITY AND STATISTICS TO LEGAL PROBLEMS (1978)).

27. *See* Ronald J. Allen, *Burdens of Proof, Ambiguity, and Uncertainty in Modern Legal Discourse*, 17 HARV. J.L. & PUB. POL'Y. 627, 633–34 (1994) ("the typical civil case involves a contest between two indistinguishable parties vying over some good, and there is no reason in advance to favor one party or the other. We thus strive to treat them equally by making errors against them in a roughly symmetrical fashion."); Ronald J. Allen, *The Error of Expected Loss Minimization*, 2 LAW PROBABILITY & RISK 1, 4 (2003) ("[T]he preponderance rule manifests the general social policy to be fair and evenhanded to all the parties, as jurors standardly are explicitly instructed, and equal treatment is incontrovertibly one critical component of fairness."). On the role of equality in procedural justice, see Lawrence B. Solum, *Procedural Justice*, 78 S. CAL. L. REV. 181, 286–89 (2004).

28. *See* STEIN, *supra* note 5.

29. Addington v. Texas, 441 U.S. 418, 423–24 (1979) ("In the administration of criminal justice, our society imposes almost the entire risk of error upon itself. This is accomplished by requiring under the Due Process Clause that the state prove the guilt of an accused beyond a reasonable doubt.").

not BARD; rather than convict and risk an erroneous conviction, an acquittal is required. This asymmetry expresses, and is justified by, the belief that the importance or cost of a false conviction is much greater than a false acquittal.[30]

A third decision rule is proof by "clear and convincing evidence." This rule requires an "intermediate standard of proof" between the preponderance rule and the BARD rule.[31] It creates an asymmetry regarding the risk of error, favoring defendants over plaintiffs, but not as asymmetrical as under the BARD rule. The additional risk of error borne by plaintiffs occurs whenever a proposition is proven by a preponderance but not by clear and convincing evidence.[32] This decision rule applies in civil cases in which errors going against defendants are considered to be more important or costly than errors favoring defendants.[33] For example, the clear-and-convincing rule applies in cases involving fraud,[34] civil commitment,[35] deportation,[36] denaturalization,[37] termination of parental rights,[38] decisions to terminate life,[39] and freedom of speech.[40]

I conclude this Part by considering briefly the possibility of leaving the choice of particular proof rules to decisionmakers in particular cases.[41] This option would inject further uncertainty into the proof process, and it would lead to unjust consequences. It would allow the risk of error to be allocated unfairly in a given case (e.g., a rule lower than the preponderance rule) and inconsistently among cases (e.g., a rule higher than BARD in a

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30. *In re* Winship, 397 U.S. 358, 372 ("[W]e do not view the social disutility of convicting an innocent man as equivalent to the disutility of acquitting someone who is guilty."); MCCORMICK, *supra* note 12, § 341 ("[T]he courts may have increased the total number of mistaken decisions in criminal cases, but with the worthy goal of decreasing the number of one kind of mistake—conviction of the innocent.").

31. *See* Santosky v. Kramer, 455 U.S. 745, 756 (1982).

32. *See* John Kaplan, *Decision Theory and the Factfinding Process*, 20 STAN. L. REV. 1065, 1072–73 (1968). But, by contrast, plaintiffs no longer bear the risk of error that is borne by the prosecution in criminal cases for propositions proven by clear and convincing evidence but not BARD.

33. *Addington*, 441 U.S. at 424 ("[T]his Court has used the 'clear, unequivocal and convincing' standard of proof to protect particularly important individual interests in various civil cases.").

34. *See, e.g.*, Thorne v. Commissioner, 99 T.C. 67, 87 (1992).

35. *See Addington*, 441 U.S. at 424.

36. *See* Woodby v. INS, 385 U.S. 276, 285–86 (1966).

37. *See* Schneiderman v. United States, 320 U.S. 118, 158–59 (1943).

38. *See* Santosky v. Kramer, 455 U.S. 745, 769 (1982).

39. *See* Cruzan v. Missouri Dep't of Health, 497 U.S. 261, 265 (1990).

40. *See* N.Y. Times Co. v. Sullivan, 376 U.S. 254, 285–86 (1964).

41. Professors Dale Nance and Erik Lillquist have each suggested that the proof rules may still allow jurors to adjust the level proof on a case-by-case basis. Lillquist, *supra* note 13, at 147–62; Dale A. Nance, *Evidential Completeness and the Burden of Proof*, 49 HASTINGS L.J. 621, 624 (1998) (noting this is not "part of the standard interpretation").

similar case).[42] The U.S. Supreme Court has therefore rejected this option, explaining that:

> this Court never has approved case-by-case determination of the proper *standard of proof* for a given proceeding. Standards of proof, like other "procedural due process rules, are shaped by the risk of error inherent in the truth-finding process as applied to the *generality of cases*, not the rare exceptions." Since the litigants and the factfinder must know at the outset of a given proceeding how the risk of error will be allocated, the standard of proof necessarily must be calibrated in advance.[43]

III. THE FAILURES OF FIRST-ORDER PROOF RULES

Proof rules dictate when a fact has been proven,[44] and these conclusions ought to foster the underlying goals expressed by the rules. These goals include policy choices regarding accuracy (error minimization) and fairness (error allocation). Current proof rules—preponderance, BARD, and clear-and-convincing—fail to guide and constrain decision-making consistent with these goals. These failures create problems for decision-making at trial.

Less obvious, but perhaps more wide-ranging, these failures also create problems for various procedural devices that require judgments about the sufficiency of evidence. These devices include summary judgment[45] and judgment as a matter of law[46] in civil cases and defendant challenges to the sufficiency of the evidence in criminal cases.[47] As will be explained below, failures of the proof rules contribute to problems regarding whether parties will get to trial in the first place, whether particular verdicts will be upheld or overturned, and whether civil parties' and criminal defendants' constitutional rights will be protected. In this Part, I first discuss the proof rules and fact-finding at trial and then discuss their effects on procedural devices.

A. *Preponderance of the Evidence*

The phrase "preponderance of the evidence" is ambiguous. The word "preponderance" refers to a superiority of some kind, but it may refer to a superiority of weight, power, importance, strength, or quantity.[48] "The

42. *See* STEIN, *supra* note 5.
43. *Santosky*, 455 U.S. at 757 (*quoting* Mathews v. Eldridge, 424 U.S. 319, 344 (1976)).
44. *Id.*
45. FED. R. CIV. P. 56.
46. FED. R. CIV. P. 50.
47. Jackson v. Virginia, 443 U.S. 307, 314–18 (1979); FED. R. CRIM. P. 29.
48. Merriam Webster defines "preponderance" as "a superiority in weight, power,

prevailing view" of the preponderance rule requires the jury to be "persuaded that the points to be proved are more probably so than not."[49] Moreover, "[w]hat counts is not the volume of evidence but quality."[50] Jury instructions typically direct jurors to consult the degree to which they are persuaded that the facts are true. Consider two examples: preponderance requires "belief that what is sought to be proved is more likely true than not,"[51] and that jurors "must be persuaded that it is more probably true than not true."[52]

These instructions lead to two problems. First, telling jurors to decide that a fact has been proven when they are "persuaded" or "believe" that a proposition is more likely true than not, fails to provide any guidance on when such conclusions are warranted *based on the evidence*.[53] Jurors may be persuaded that certain propositions are more likely true than not for completely irrational and unwarranted reasons or for reasons having nothing to do with the evidence. A rule that turns solely on the subjective beliefs of decisionmakers is unlikely to either minimize errors or distribute the risk of error roughly evenly among the parties. Indeed, a rule that instructs decisionmakers to draw conclusions that they already believe, after observing the evidence, may function similarly to no rule at all. Nor does simply telling jurors to "consider all the evidence" alleviate this problem.[54] In the absence of guidance on how to consider the evidence,

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importance, or strength" and "a superiority or excess in number or quantity." *See* MERRIAM WEBSTER ONLINE DICTIONARY, *available at* http://www.merriam-webster.com/dictionary/preponderance; *see also* OXFORD ENGLISH DICTIONARY 2d. V. VII 378 (defining "preponderance" as "1. The fact of exceeding in weight; greater heaviness.").

49. CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, EVIDENCE § 3.3 (2d. ed. 2003).

50. *Id.*

51. KEVIN F. O'MALLEY ET AL., FEDERAL JURY PRACTICE AND INSTRUCTIONS § 104.01 (5th ed. 2000).

52. FEDERAL CIVIL JURY INSTRUCTIONS OF THE SEVENTH CIRCUIT 34 (2005).

53. Further instructions to decide based solely on the formal evidence also fail to provide this guidance. First, it is impossible for jurors to draw inferences from the formal evidence without relying on their background knowledge, beliefs, and assumptions as well as the formal evidence. Second, instructions to decide based on the evidence do not give any guidance on what to do with that evidence.

54. To illustrate these points, consider the following dialog between the law personified and an earnest, intelligent juror attempting to apply the rule:

> The Law: You must find for the plaintiff if the plaintiff proves the disputed fact by a preponderance of the evidence.
>
> The Juror: Ok, so how do I determine that?
>
> The Law: When you are persuaded that the fact is more likely true than not.
>
> The Juror: Ok, great, so how do I determine that?
>
> The Law: Consider all of the evidence.

nothing in the rule helps to separate warranted and unwarranted conclusions. This is a problem because proof rules should help guide decisionmakers to a conclusion.[55] At the crucial point of moving from evidence to a conclusion, the preponderance rule leaves decisionmakers with their own subjective beliefs. The rule ought to provide some guidance as to what conclusions are warranted and unwarranted based on the evidence.

The second problem with the preponderance rule is ambiguity in the phrases "more likely than not" and "more probable than not." This aspect of the rule calls for a comparison of some kind, but it is not clear exactly what is to be compared. It might mean the likelihood of the plaintiff's factual allegations versus the negation of those allegations, or it might mean the likelihood of the plaintiff's allegations versus the likelihood of the defendant's alternative allegations. The first interpretation appears to better fit the instructions,[56] but it fails with regard to the goals of error minimization and allocation. If the plaintiff must prove that some fact, *X*, is more probable than its negation, *not-X*, then the plaintiff should have to show not only the probability that the state of the world is such that *X* is true, but also the probability of every other possible state of the world in which *X* is not true.[57] This would mean that in order to prevail, plaintiffs would have to disprove (or demonstrate the low likelihood of) each of the virtually limitless number of ways the world could have been at the relevant time. This would be a virtually impossible task, and thus, absent conclusive proof, plaintiffs would lose. This would plainly be inconsistent with the goals of the preponderance rule, and thus some comparison with the defendant's case is necessary.

> The Juror: Ok, so I'm considering all of the evidence, now when should I be persuaded that the fact is more likely true than not?
>
> The Law: Um . . .
>
> The Juror: Well?

And here the discussion ends. Further instructions to decide "carefully" and "deliberately" would also fail to provide the necessary guidance.

55. *See* LAUDAN, *supra* note 22, at 31. The need for this guidance is not about mistrust of the jury; it is about providing the jury with sufficient information to draw conclusions in ways likely to foster the goals of the proof rules.

56. *See supra* notes 49–52 and accompanying text; *see also* MUELLER & KIRKPATRICK, *supra* note 49, § 3.3 ("Preponderance is not a comparative standard: The question is not whether plaintiff's case is better than defendant's but whether the evidence makes the points that the plaintiff must prove more probably true than not.").

57. *See* DOUGLAS WALTON, ABDUCTIVE REASONING 277 n.6 (2004) ("To say a statement is improbable means that it is unlikely that it is true . . . . This notion is based . . . on placing the statement as one in a set of statements that are independent of each other and that together exhaust a set of outcomes.").

In order to facilitate the goals of the preponderance rule, the plaintiff ought to prevail whenever the likelihood of his allegations exceeds that of the defendant's. Finding for plaintiffs when their allegations are more likely true will, other things being equal, minimize errors. Moreover, finding for plaintiffs under these circumstances allocates the risk of error evenly—going against whichever party fails to offer the more likely allegations (which *ex ante* may be either plaintiff or defendant). By contrast, a rule that declares defendants should prevail in situations in which the likelihood of a defendant's allegation is lower than the likelihood of the plaintiff's allegation is inconsistent with the goals of the rule. To the extent the preponderance rule is interpreted in ways that ignore this comparative aspect, it fails.

B. *Beyond a Reasonable Doubt*

The BARD rule faces similar problems. Although the prosecution is constitutionally required to prove each element of a crime BARD,[58] conveying this rule's requirements to jurors has proven to be notoriously difficult.

Many interpretations of the BARD rule are inconsistent with its goals—most importantly, reducing the risk of error for criminal defendants. Similar to the preponderance rule, the most serious defect is a focus on the decisionmakers' subjective beliefs—rather than on features of the evidence that would justify decisions—in trying to separate reasonable and unreasonable doubts. Consider four examples. First, some jury instructions define BARD as requiring the kind of certainty required for making important decisions in one's life.[59] But many important decisions made in life (jobs, medical procedures, relationships, etc.) are undertaken even though one may have considerable doubts, and some jurors are more risk averse than others. Second, reasonable doubts are sometimes defined as those that would cause a prudent person to hesitate to act.[60] But even

58. *In re* Winship, 397 U.S. 358, 368 (1970).

59. *See, e.g.*, SIXTH CIRCUIT PATTERN CRIMINAL JURY INSTRUCTIONS 1.03 (2005) (defining BARD as "proof which is so convincing that you would not hesitate to rely and act on it in making the most important decisions in your own lives"). The kind of certainty required under BARD is sometimes described as a "moral certainty" in jury instructions. *See, e.g.*, Victor v. Nebraska, 511 U.S. 1, 10–17 (1994) (upholding a "moral certainty" instruction). This notion is likely to be misleading to jurors because it is a vestige from seventeenth- and eighteenth-century epistemology, meaning something like beliefs that are "firm and settled truths, supported by multiple lines of evidence and testimony." LAUDAN, *supra* note 22, at 33; s*ee also* Barbara J. Shapiro, *"To a Moral Certainty": Theories of Knowledge and American Juries 1600-1850*, 38 HASTINGS L.J. 153 (1986) (discussing the emergence and history of the concept).

60. *See, e.g.*, Victor v. Nebraska, 511 U.S. 1, 20 (1994) (upholding instruction and approving of the definition of BARD as "a doubt that would cause a reasonable person to hesitate to act"). Although similar to the moral-certainty instruction, this definition differs in that it relies on the inclinations of a more objective "reasonable person" while the first appears to refer to each juror's

prudent people sometimes act despite these doubts. Third, jurors are sometimes told that they must have "an abiding conviction" of the defendant's guilt.[61] But, as Professor Larry Laudan has argued, this is either incoherent or wholly subjective.[62] It is incoherent if it requires a truly *abiding* conviction—which would persist over time—because jurors give their judgments about the defendant's guilt *at that time*.[63] Alternatively, it may just be a strongly held belief, but a strongly held belief may exist even when it is completely irrational or unsupported by the evidence. This instruction does not tell jurors when they should have a strongly held belief.[64] Fourth, BARD is sometimes just considered to be a "high probability."[65] But there is no consensus as to what the probability should be,[66] and, more importantly, the determination of whether it has been met would again involve subjective belief.[67] Because any connection can exist between subjective beliefs of decisionmakers and the truth, these interpretations of the rule cannot perform the rule's error-allocation function based on a rational assessment of the evidence.

The U.S. Supreme Court has declared that due process does not require that jurors receive a particular definition, or any definition at all, of BARD.[68] The purported rationale for this approach is that jurors already understand the notion.[69] But strong empirical evidence suggests otherwise.[70] There does not appear to be any stable, intuitive understanding of BARD shared by juries, or by judges: for example, jurors and mock

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own inclinations.

61. *Id.* at 14–15.

62. LAUDAN, *supra* note 22, at 39.

63. LAUDAN, *supra* note 22, at 39. For example, jurors are not asked to report later whether they are still convinced the defendant is guilty (that is, whether their conviction was *abiding*).

64. LAUDAN, *supra* note 22, at 39–40.

65. LAUDAN, *supra* note 22, at 44–47.

66. *See, e.g.*, United States v. Fatico, 458 F. Supp. 388, 410 (E.D.N.Y. 1978) (describing poll of judges: the range for BARD was from 76% to 95%); C.M.A. McCauliff, *Burdens of Proof: Degrees of Belief, Quanta of Evidence, or Constitutional Guarantees?*, 35 VAND. L. REV. 1293, 1325 (1982) (describing poll of judges: 126 said high probability was at 90% or above, eleven said at 75% or below, and one said at 50%); Rita James Simon & Linda Mahan, *Quantifying Burdens of Proof: A View from the Bench, the Jury, and the Classroom*, 5 LAW & SOC'Y REV. 319 (1971) (describing survey of judges based on a scale of 0 to 10: the mean for high probability was 8.9; 63% gave a level of 9.0 or below).

67. *See* LAUDAN, *supra* note 22, at 44–47.

68. Victor v. Nebraska, 511 U.S. 1, 5 (1994) ("[T]he Constitution does not require that any particular form of words be used in advising the jury of the government's burden of proof.").

69. *See* PATTERN CRIMINAL FEDERAL JURY INSTRUCTIONS FOR THE SEVENTH CIRCUIT 2.04 ("The phrase 'reasonable doubt' is self-explanatory and is its own best definition."); *see also* United States v. Hall, 854 F.2d 1036, 1039 (7th Cir. 1988) ("[D]efinitions of reasonable doubt are unhelpful to a jury.").

70. For a useful general discussion of empirical literature on BARD, see Lawrence M. Solan, *Refocusing the Burden of Proof in Criminal Cases: Some Doubt about Reasonable Doubt*, 78 TEX. L. REV. 105, 119–32 (1999).

jurors have quantified the government's burden at around 61%,[71] have interpreted BARD to be less demanding than the clear-and-convincing-evidence rule,[72] and have expressed the idea that once there is some evidence of guilt the defendant must persuade the jury of his innocence.[73] Moreover, studies in which the common definitions of BARD are varied, typically produce vastly different conviction rates.[74] Surveys of judges also suggest wide disagreement on the level of proof required by BARD.[75]

These difficulties suggest that BARD is an obscure, unclear idea—thus making it difficult for the BARD rule to meet its goals regarding error minimization and allocation. Professor Laudan has aptly described the current BARD rule as "grievously inadequate, deliberately unclear, [and] wholly subjective."[76] He summarizes the failure of BARD as follows:

> The most earnest jury, packed with twelve people desirous of doing the right thing and eager to see that justice is done, are left dangling with respect to how powerful a case is required before they are entitled to affirm that they believe the guilt of the defendant beyond a reasonable doubt. In such circumstances, simply muddling on is not an attractive prospect.[77]

These failures echo the failures of the preponderance rule.[78]

C. *Clear and Convincing Evidence*

As an intermediate decision rule between the preponderance and BARD rules, the clear-and-convincing-evidence rule exhibits the difficulties of both. The decision rule requires a level of proof more demanding than the preponderance rule but less demanding than BARD.[79] However, given the uncertainty surrounding the preponderance and BARD rules, the clear-and-

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71. Irwin A. Horowitz & Laird C. Kirkpatrick, *A Concept in Search of a Definition: The Effects of Reasonable Doubt Instructions on Certainty of Guilt Standards and Jury Verdicts*, 20 LAW & HUM. BEHAV. 655, 664 (1996).

72. Dorothy K. Kagehiro & W. Clark Stanton, *Legal vs. Quantified Definitions of Standards of Proof*, 9 LAW & HUM. BEHAV. 159, 173 (1985).

73. Bradley Saxton, *How Well Do Jurors Understand Jury Instructions? A Field Test Using Real Juries and Real Trials in Wyoming*, 33 LAND & WATER L. REV. 59, 97 (1998).

74. *See* Solan, *supra* note 70, at 119–32.

75. *See supra* note 66.

76. LAUDAN, *supra* note 22, at 30.

77. LAUDAN, *supra* note 22, at 31.

78. This is not to suggest that the rule, even in its present manifestations, is not valuable (when compared with having no rule at all). Jurors do appear to take proof rules seriously in deliberations, and the rules, no doubt, influence some outcomes. *See* Andreas Glockner & Christoph Engel, *Can We Trust Intuitive Jurors? An Experimental Analysis* 23, MPI Preprints, *available at* http://ssrn.com/abstract=1307580. A rule may have some positive effect and yet still fail miserably at providing sufficient guidance to meet its underlying goals.

79. Santosky v. Kramer, 455 U.S. 745, 756 (1982).

convincing rule's requirements are also difficult to discern.

Typical jury instructions define the rule as requiring jurors to be convinced that the fact at issue is "highly probably true."[80] This articulation fails to provide guidance to decisionmakers for two reasons. First, it is not clear exactly when the threshold of "highly probably" has been crossed.[81] The U.S. Supreme Court has acknowledged that "the difference between a preponderance of the evidence and proof beyond a reasonable doubt probably is better understood than either of them in relation to the intermediate standard of clear and convincing evidence."[82] Moreover, one study suggests that the rule is neither intuitively obvious nor well understood: mock jurors have incorrectly interpreted the rule to require a higher level of proof than under the BARD rule.[83] Second, and more importantly, the proof rule directs decisionmakers to focus on their subjective beliefs rather than on features of the evidence. A juror could believe a fact to be "highly probably" true for completely irrational reasons. A rule that turns solely on beliefs of decisionmakers is not likely to foster the rule's normative goals.[84]

D. *"Sufficiency of the Evidence"*

For the reasons discussed above, the three common proof rules fail to guide and constrain factual findings in ways that foster the rules' goals. A number of procedural devices depend upon these underlying proof rules, and thus problems with the proof rules create additional problems with these procedural devices. These devices include summary judgment and judgment as a matter of law (JMOL) in civil cases and criminal defendants' challenges to the sufficiency of the evidence.

In civil cases, summary judgment allows courts to render a pretrial judgment against a party based on insufficient evidence,[85] and judgments as a matter of law allow courts to render a judgment against a party at trial or after a jury's verdict based on insufficient evidence.[86] For both motions,

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80. *See, e.g.*, PATTERN FEDERAL CIVIL JURY INSTRUCTIONS FOR THE SEVENTH CIRCUIT 1.28 (defining "clear and convincing evidence" as "you [ ] are convinced that it is highly probable that it is true"); *see also* MCCORMICK, *supra* note 12, § 340 (approving of an instruction that informs jurors "that they must be persuaded that the truth of the contention is 'highly probable'").

81. *See* MCCORMICK, *supra* note 12, § 340.

82. Addington v. Texas, 441 U.S. 418, 425 (1979). Given the lack of clarity regarding the other two rules, this says a lot!

83. *See* Kagehiro & Stanton, *supra* note 72.

84. *See* LAUDAN, *supra* note 22, at 1.

85. FED. R. CIV. P. 56.

86. FED. R. CIV. P. 50. Rule 50 provides for judgments as a matter of law motions at trial, *see* FED. R. CIV. P. 50(a), and for renewed motions after a jury's verdict, *see* FED. R. CIV. P. 50(b). The first motion corresponds to the previously labeled motion for a "directed verdict," and the second corresponds to the previously labeled motion for "judgment notwithstanding the verdict." *See* FED. R. CIV. P. 50, ADVISORY COMM. NOTE TO 1991 AMEND.

in order to determine whether evidence is sufficient to support a conclusion, judges must determine what a "reasonable" fact-finder could conclude based on the evidence.[87] This latter determination depends on the underlying decision rule—namely, could a reasonable decisionmaker find a particular fact at the level of proof required by the decision rule?[88] But, because what is required by the decision rule is unclear, what a reasonable decisionmaker could conclude is likewise unclear. The uncertainty at the fact-finding level thus ramifies to judicial sufficiency-of-the-evidence determinations.[89]

And it has ramified in significant ways. Applications of summary judgment and judgment as a matter of law have been the subject of sustained criticism because in the absence of a clear standard, courts are free to generate unprincipled applications.[90] Professor Arthur Miller, summing up the uncertainty of these standards, argues that "it is imperative that the Supreme Court provide clarity rather than leaving the matter entirely to the genial anarchy of trial court discretion."[91] At the root of this uncertainty is a failure to specify which jury conclusions are reasonable and which are unreasonable.[92] And *this* uncertainty follows from the failures of the proof rules to dictate when the evidence warrants a particular conclusion. Moreover, this line between a reasonable and an unreasonable conclusion is not only of practical importance, but also of constitutional importance. A party's Seventh Amendment right to a jury depends on whether a reasonable jury could find in its favor.[93] Thus, the uncertainty created by unclear proof rules creates further uncertainty as to whether parties' constitutional rights are protected.

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87. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 250–56 (1986) (explaining that the standard for both motions is whether "there can be but one reasonable conclusion"); *see also* Reeves v. Sanderson Plumbing Prods., Inc., 530 U.S. 133, 149–50 (2000).

88. *See Anderson*, 477 U.S. at 252 (explaining that the reasonable jury standard "necessarily implicates the substantive evidentiary standard of proof").

89. *See* Arthur R. Miller, *The Pretrial Rush to Judgment: Are the "Litigation Explosion," "Liability Crisis," and Efficiency Cliches Eroding Our Day in Court and Jury Trial Commitments?*, 78 N.Y.U. L. REV. 982, 1058 (2003) ("The reasonable-jury standard is difficult to elaborate upon or further define, and judges have invoked a number of 'buzzwords' in struggling to articulate and apply it."); *see also* Suja Thomas, *The Fallacy of Dispositive Procedure*, 50 B.C. L. REV. 759 (2009) (criticizing the lack of clarity regarding reasonable-jury tests).

90. *See, e.g.*, John Bronsteen, *Against Summary Judgment*, 75 GEO. WASH. L. REV. 522, 542 (2007); Miller, *supra* note 89; Martin H. Redish, *Summary Judgment and the Vanishing Trial: Implications of the Litigation Matrix*, 57 STAN. L. REV. 1329, 1330 (2005); Elizabeth Schneider, *The Dangers of Summary Judgment: Gender and Federal Civil Litigation*, 59 RUTGERS L. REV. 705 (2007).

91. Miller, *supra* note 89, at 1134.

92. *See* Thomas, *supra* note 89.

93. Courts have the power to direct verdicts based on insufficient evidence, but not when the evidence is sufficient to support a reasonable jury verdict. *See* Galloway v. United States, 319 U.S. 372, 395 (1943); Baltimore & Carolina Line, Inc. v. Redman, 295 U.S. 654, 659–61 (1935); Gasoline Prods. Co. v. Champlin Ref. Co., 283 U.S. 494, 498 (1931).

In criminal cases, defendants may likewise challenge convictions based on insufficient evidence.[94] The standard depends on whether a reasonable jury could find the defendant guilty BARD. In *Jackson v. Virginia*,[95] the Court articulated the proper inquiry as "whether, after viewing the evidence in the light most favorable to the prosecution, *any* rational trier of fact could have found the essential elements of the crime beyond a reasonable doubt."[96]

Despite the constitutional right of criminal defendants to sufficiency review in criminal cases, courts are quick to rubber-stamp convictions. Judge Jon Newman has called for courts to take sufficiency review more seriously, noting that courts overturn convictions on sufficiency grounds "very rarely," and, even then, "they almost never do so by applying, in explicit terms, the 'reasonable doubt' standard."[97] He explains that "on those rare occasions when a federal appellate court accepts a claim that a case should not have gone to a jury, it typically says simply that the evidence is 'insufficient[,]' . . . that there is no evidence at all to support a necessary element."[98] The lack of both serious review and explicit reasoning can be traced to the proof rule. Because of the lack of criteria establishing what would (and would not) be a reasonable conclusion given the evidence and the BARD rule, courts lack a vocabulary through which to make their reasoning explicit and to justify their doubts and convictions about what a reasonable jury could or must conclude based on the evidence.[99]

IV. SECOND-ORDER RULES

In the absence of criteria for applying a first-order rule consistent with its goals, a second-order rule may be desirable to guide applications.[100] Second-order proof rules may be constructed based on *probabilistic* or *explanatory* criteria. These two possibilities arise from theoretical accounts in evidence scholarship attempting to explain first-order rules and their

94. FED. R. CRIM. P. 29; Jackson v. Virginia, 443 U.S. 307, 313–16 (1979).

95. 443 U.S. 307 (1979).

96. *Id.* at 319 (declaring that due process requires that convictions must be supported by sufficient evidence to meet this standard).

97. Jon O. Newman, *Beyond "Reasonable Doubt*," 68 N.Y.U. L. REV. 979, 989 (1993).

98. *Id.*

99. *Jackson v. Virginia*, 443 U.S. 307 (1979), itself illustrates the problem. The defendant was convicted of first-degree murder for shooting a female acquaintance. *Id.* at 309–10. He admitted the shooting. *Id.* at 310. But first, he claimed that it was accidental; then, he claimed that it was self-defense; finally, he claimed that he was too intoxicated to form the requisite mens rea. *Id.* at 310. It appears to be an easy case given the evidence, and the Court agreed unanimously that there was sufficient evidence to support Jackson's conviction. *Id.* at 324, 326. But—and here is the critical point—the Court fails to tell us exactly why the evidence is sufficient and what might make it insufficient. *Id.*

100. *See* Sunstein & Ullmann-Margalit, *supra* note 4, at 7.

implications.[101] Although I draw on aspects of these theoretical discussions, I put them toward a different end. Rather than merely explaining first-order rules, I construct an additional layer of rules to guide and constrain the application of these rules.[102] In this Part, I provide content to second-order rules and explain their analytical relationship with first-order rules. In the next Part, I will discuss further details of how to operationalize second-order rules.

A. *Failures of Probabilistic Second-Order Rules*

The language of proof rules invites probabilistic interpretations. For example, jury instructions for the preponderance and clear-and-convincing-evidence rules employ language such as "more likely," "more probable,"[103] and "highly probably."[104] One possibility for second-order rules is thus to translate each decision rule into a more explicit cardinal value between 0 and 1 (with 0 representing certain falsity and 1 certain truth): for example, "preponderance" requires proof of a likelihood greater than 0.5; clear and convincing requires proof beyond 0.75; and BARD requires proof beyond 0.9.[105] For the reasons discussed below, however, probabilistic second-order rules would fail to guide and constrain decision-making in ways that foster the underlying goals of the proof rules.

Before turning to these reasons, however, I briefly note the important value probabilistic interpretations serve in illustrating the analytical implications of proof rules. Consider the preponderance rule as requiring proof of "greater than 0.5" probability. This conception provides a useful way to demonstrate how the rule functions with regard to error allocation. When the probability of a disputed fact is 0.5 or below, the party with the burden of proof will lose. So long as the probability is not 0, however, the fact "not proved" might nevertheless be true, and thus, the verdict erroneous. Likewise, any time the probability is greater than 0.5, the party with the burden of proof will win. So long as the probability is less than 1, however, the "proven" proposition might be false, and thus, the verdict

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101. For examples of probabilistic accounts, see the scholarly sources cited *supra* note 13. The explanatory account is provided in Michael S. Pardo & Ronald J. Allen, *Juridical Proof and the Best Explanation*, 27 LAW & PHIL. 223 (2008). *See* Ronald J. Allen & Michael S. Pardo, *The Problematic Value of Mathematical Models of Evidence*, 36 J. LEG. STUD. 107 (2007) (arguing that formal modeling is of limited use in evaluating the probative value of legal evidence).

102. There is no *necessary* connection between the theoretical accounts and second-order rules. One can, for example, accept a probabilistic theoretical account and reject probabilistic second-order rules; likewise, one can accept the practical value of explanatory second-order rules while rejecting an explanatory theoretical account of the underlying rules.

103. *See supra* notes 51–52 and accompanying text.

104. *See supra* note 80 and accompanying text.

105. *See* Richard S. Bell, *Decision Theory and Due Process: A Critique of the Supreme Court's Lawmaking for Burdens of Proof*, 78 J. CRIM. L. & CRIMINOLOGY 557, 574 (1987) (referring to these numbers as "accepted translations").

erroneous. The parties thus share roughly equally in the risk of error in the following sense: the party with the burden bears the risk of error when the probability is between 0 and 0.5 and the party without the burden bears the risk when the probability is between 0.5 and 1. Similar illustrations may be provided for error reduction and other decision rules.[106]

Notwithstanding these insights, probabilistic criteria would fail to provide effective second-order rules. Suppose second-order rules instructed courts and jurors to employ the probabilistic values noted above (0.5, 0.75, 0.9) for the rules. Three main problems would prevent these second-order rules from alleviating the failures of the first-order rules.[107]

The first problem concerns the subjectivity of probability assessments. Second-order rules may refer to decisionmakers' degrees of confidence or certainty in the facts under dispute. If so, they fail for the same reasons as first-order rules. There is no reason to think that degrees of certainty or confidence are likely to be truth conducive: they may be irrational, unreasonable, or have nothing to do with the evidence. There would thus be no reason to think that these second-order rules would achieve better results regarding error allocation and error reduction. For example, in our contract dispute between Andy and Betty, the second-order rule would allow any probabilistic assessment at all between 0 and 1, regardless of the evidence.

The second problem concerns the lack of objective statistical data. Probabilistic rules could perhaps be employed in ways that better achieved their goals if conclusions based on the rules were constrained by objective probabilistic data, rather than subjective levels of certainty or confidence. However, although statistical evidence is sometimes available for isolated items of evidence, data regarding the vast majority of evidence will be lacking. Thus, conclusions will again collapse into the problems noted in the previous paragraph. With our contract example, even if some statistical data is available (e.g., about the frequency of similar contracts), this evidence must be combined with other non-quantified evidence in the case, again licensing any assessment at all between 0 and 1.[108]

The third problem has to do with computational complexity. Even if we had the data necessary to overcome these problems, an additional problem would prevent second-order rules from serving their goals. Namely, the number of calculations required of decisionmakers would quickly outstrip

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106. For probabilistic accounts of error reduction, see Hamer, *supra* note 13; Kaye, *supra* note 6. For probabilistic accounts of decision rules that allocate the risk of error asymmetrically, see Kaplan, *supra* note 32; Lillquist, *supra* note 13.

107. Additional problems for the probability approach are mentioned in the notes.

108. Additional problems with quantified evidence may include whether particular evidence is a typical member of the class for which data is available, *see* Allen & Pardo, *supra* note 101, and the possibility of quantified evidence overwhelming non-quantified evidence, *see* Lawrence H. Tribe, *Trial by Mathematics: Precision and Ritual in the Legal Process*, 84 HARV. L. REV. 1329, 1361 (1971).

their capabilities. This is not just a point about competence regarding statistical reasoning[109]—it goes much deeper. For example, in our contract example, calculating the probability based on just ten pieces of evidence would quickly outstrip the ability of decisionmakers to render a decision.[110] For these reasons, probabilistic second-order rules are untenable.[111]

B. *Explanatory Second-Order Rules*

Explanatory criteria provide more plausible second-order rules than probability criteria. Under an explanatory account of decision rules, propositions are considered proven, or not, based on how well they explain the evidence and events under dispute.[112] Under probability approaches, decisionmakers infer conclusions based on how likely a proposition appears, given what is known about the evidence.[113] The explanatory approach reverses the inferential process. Under this approach, decisionmakers infer conclusions based on how well each proposition, if true, would explain the evidence.

Our contract-dispute example can illustrate the difference. Under a probability approach, the decisionmaker assesses the probability of each element of a contract, given (or conditioned upon) the evidence.[114] Under

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109. *See* Jonathan J. Koehler, *The Psychology of Numbers in the Courtroom: How to Make DNA-Match Statistics Seem Impressive or Insufficient*, 74 S. CAL. L. REV. 1275, 1279–80 (2001) ("A large body of research on statistical reasoning suggests that people have poor intuitions when it comes to reasoning with statistics in general and forensic science statistics in particular.") (collecting sources).

110. Ronald J. Allen, *Constitutional Adjudication, the Demands of Knowledge, and Epistemological Modesty*, 88 NW. U. L. REV. 436, 444 (1993).

> Suppose there are only ten pieces of evidence . . . . To apply Bayes' Theorem to appraise the probability of that proposition being true requires a thousand computations. In the understated language of Gilbert Harman, "to be prepared for twenty evidence propositions, one must record a million probabilities. For thirty evidence propositions, a billion probabilities are needed, and so forth."

Id. (quoting Gilbert Harman, Change in View 26 (1989)).

111. Moreover, even if each of these problems could be solved, further analytical problems remain for probabilistic rules. *See, e.g.*, Ronald J. Allen & Sarah A. Jehl, *Burdens of Proof in Civil Cases: Algorithms vs. Explanations*, 2003 MICH. ST. L. REV. 893 (2003) (discussing the conjunction paradoxes).

112. *See* Pardo & Allen, *supra* note 101, at 229. Decision-making under the explanatory account resembles the process of "inference to the best explanation" in the philosophy of science; Gilbert Harman, *The Inference to the Best Explanation*, 74 PHIL. REV. 88, 88–89 (1965); *see also* PETER LIPTON, INFERENCE TO THE BEST EXPLANATION (Routledge 2d ed. 2004); Paul R. Thagard, *Evaluating Explanations in Law, Science, and Everyday Life*, 15 CURRENT DIRECTIONS PSYCH. SCI. 141, 141 (2006).

113. This can be accomplished either by assigning a probability to each atomic proposition or to conjunctions of such propositions.

114. Under this approach, the probability would move up or down based on the introduction of each new item of relevant evidence.

the explanatory approach, by contrast, the decisionmaker assesses whether the existence (or nonexistence) of a contract better explains the evidence and disputed events than other competing explanations (e.g., that the plaintiff is lying or mistaken). This decision-making process occurs in two steps: (1) identifying potential explanations, and (2) selecting the one that provides the best or better explanation. At the first step, decisionmakers rely primarily on the parties to provide and frame the potential explanations.[115] At the second step, a number of general criteria provide grounds to assess the strengths or weaknesses of explanations. These criteria include: consistency, simplicity, coherence with background beliefs, consilience (the extent to which many and different kinds of facts are explained), and the absence of ad hoc premises.[116] Most important to this second step is its comparative nature. Explanations are not the better or best in isolation; they are better or worse as compared to available alternatives.[117]

Explanatory second-order rules avoid the problems that beleaguer probabilistic second-order rules. First, although the choice among competing explanations involves judgment by decisionmakers, explanatory inferences avoid the problem of pure subjectivity that affects confidence-based probability assessments. The choice among explanations depends on objective features of the evidence, and thus explanatory rules can guide and constrain decision-making based on these features. Second, explanatory inferences avoid the need for statistical data for each item of evidence. However, explanatory rules can incorporate and assess statistical evidence and combine it with non-quantified evidence in a straightforward way; with both kinds of evidence and their combinations the inquiry is the same: what would best explain it?[118] Finally, the lack of numerous calculations with explanatory rules avoids the problem of computational complexity. Moreover, unlike probabilistic reasoning, jurors and judges are already familiar with, and generally good at, constructing and evaluating

115. Legal factfinders, however, may develop their own explanations of the disputed events. *See* Pardo & Allen, *supra* note 101, at 229.

116. *See* Thagard, *supra* note 112, at 142. There is no general formula or algorithm for combining these variables; rather, the presence of each tends to make an explanation better. Moreover, for those inclined toward the probability approach, the explanatory considerations may also be used to assign probabilities to the propositions at issue. Furthermore, probabilistic evidence may itself be assessed based on the explanatory criteria. Nothing in the explanatory framework precludes incorporating many of the benefits of the probabilistic approach, while avoiding its defects. Pardo & Allen, *supra* note 101, at 230.

117. Explanations are thus "contrastive." *See* Lipton, *supra* note 112, at 33 ("A contrastive phenomenon consists of a fact and a foil, and the same fact may have several different foils. We may not explain why the leaves turn yellow in November *simpliciter*, but only for example why they turn yellow in November rather than in January, or why they turn yellow in November rather than blue.").

118. *See* Pardo & Allen, *supra* note 101, at 263 (discussing statistical evidence under an explanatory framework).

explanations.[119]

Given the underlying goals of the proof rules, I now explore the content of explanatory second-order rules. Based on their goals of error minimization and allocation, the following second-order rules provide criteria for applying the first-order proof rules:

> First-Order Rule: A fact must be proven by a preponderance of the evidence.
>
> Second-Order Rule: A fact is proven by a preponderance of the evidence when the best explanation of the evidence and events in dispute includes this fact.

The second-order rule expresses the intuitive notion that of two or more explanations the one that best or better explains the evidence is more likely to be true.[120] Deciding based on explanatory criteria will, other things being equal, minimize errors and allocate the risk of error roughly evenly between the parties by directing the decisionmaker to compare the contrasting explanations that favor each side.[121] For example, in our contract dispute, Andy will have proven his claim by a preponderance of the evidence if his explanation[122] better explains the evidence than Betty's explanation.

> First-Order Rule: A fact must be proven by clear and convincing evidence.
>
> Second Order Rule: A fact is proven by clear and convincing evidence when the explanation of the evidence and events in dispute that includes this fact is clearly and convincingly better than explanations that do not.

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119. *See, e.g.*, NEIL VIDMAR & VALERIE P. HANS, AMERICAN JURIES: THE VERDICT 339–41 (2007). On the psychology of explanations more generally, see Frank C. Keil, *Explanation and Understanding*, 57 ANN. REV. PSYCH. 227, 247 (2006) ("The processes of constructing and understanding explanations are intrinsic to our mental lives from an early age."); Tania Lombrozo, *The Structure and Function of Explanations*, 10 TRENDS COGNITIVE SCI. 464, 468 (2006) ("The predominance of explanation presents a challenge for approaches to reasoning and inference that focus exclusively on decontextualized statistical evidence.").

120. The better explanation may, of course, turn out to be false. But, likewise, the more probable possibility may turn out to be false. This is just the problem of induction, and it does not distinguish explanatory from probabilistic approaches.

121. Depending on the substantive law and how the parties frame the factual issues, the better explanation may be general or disjunctive. These features of explanations are discussed more fully in the next Part, including how to incorporate additional explanations put forward by the parties or formulated by the jurors themselves.

122. Andy's explanation must include the legal elements—otherwise he will have failed to state a claim. *See* FED. R. CIV. P. 12(b)(6).

Because the quality of an explanation is an indication of its likely truth, this second-order rule requires better proof than under the preponderance rule by requiring not only that the best explanation favor the party with the burden of proof, but that this explanation be clearly and convincingly better than the opposing party's. This rule thus allocates more of the risk of error to the party with the burden of proof than under the preponderance rule. For example, under this rule Andy's explanation would now have to be clearly and convincingly better than Betty's.[123]

> First-Order Rule: A fact must be proven beyond a reasonable doubt.
>
> Second-Order Rule: A fact is proven beyond a reasonable doubt when there is a plausible explanation of the evidence and events in dispute that includes this fact and no plausible explanation that does not include this fact.

This second-order rule allocates this risk even further to the government than the clear-and-convincing rule. The rule requires that the government first provide a plausible explanation consistent with the defendant's guilt and then warrants a conviction unless there is a plausible explanation consistent with innocence.[124] The rule thus tracks the two conventional ways in which a defendant may succeed at trial—by attacking the government's theory or by offering an alternative one of his own. For example, suppose now that Andy and Betty are both prosecuted for entering into an illegal contract. Under this rule, the prosecution has proven them guilty BARD if (1) the prosecution has provided a plausible explanation of the evidence that includes the elements of the crime, *and* (2) Andy and Betty failed to offer an alternative plausible explanation of the evidence which does not include one or more of the elements. In other words, they ought to be acquitted if either the prosecution fails to provide a plausible explanation or they offer a plausible alternative.

C. *Second-Order Rules or Second-Order Standards?*

Second-order rules are meant to guide and constrain applications of first-order rules. Before discussing how to implement these rules in the next Part, I conclude this Part with some general details that further elucidate the nature of second-order rules.

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123. Under this rule, therefore, any close calls regarding the explanations should go to Betty.

124. *See* DOUGLAS WALTON, ABDUCTIVE REASONING 35 (2004) ("A plausible inference is one that can be drawn from the given apparent facts in a case suggesting a particular conclusion that seems to be true. Both a proposition and its negation can be plausible.").

One point of clarification is whether the rules are meant to be mandatory or defeasible guidelines (or "rules of thumb").[125] They are meant to be mandatory and apply in all cases in which first-order rules apply. The rules could function merely as defeasible guidelines or rules of thumb if, and only if, some other criteria could override explanations. But for this to be true, the criteria would have to somehow indicate that a worse explanation is more likely to be true than a better one (and it would have to do so without appealing to explanatory criteria). Probabilistic criteria cannot serve this function, and it is not clear what else could. Thus, while *which* explanatory criteria are salient in any given case may differ, the *quality of explanations* controlling the outcome ought to remain constant.

Crafting mandatory rules in this context serves traditional justifications for rules: guiding and constraining decisionmakers in the face of uncertainty, easing decision-making, and locating authority in the proper jurisdictional body.[126] Moreover, the lack of other criteria provides an even deeper justification for mandatory rules. Given the absence of other criteria, there is no way to peer beyond the explanations, as it were, and determine the facts. Therefore, even though mandatory rules will create the typical downside to rules—over- and under-inclusiveness with regard to their goals[127]—there is no way to appeal beyond the rules directly to the goals of error minimization and allocation in particular cases. In this context, over- and under-inclusiveness means that (1) sometimes the better explanations will be poor indicators of truth, and (2) sometimes poor explanations will be true. But in any given case, evidence suggesting that either possibility is the case should be incorporated into the explanation-evaluation process itself and not serve as the basis for an appeal to other criteria (for there are none).[128]

A second point of clarification concerns whether the rules should in fact be labeled "rules" rather than "standards." Throughout this Article I have referred to proof rules broadly to mean any legal directive (including standards). Nothing in my discussion turns on the choice of label. But, given the prominence of the distinction, discussing the second-order rules in terms of the distinction may help to further elucidate them. Although the second-order directives exhibit some "standard"-like behavior, they appear to more closely resemble "rules." The standard-like behavior they exhibit includes that 1) there will be decisionmaker discretion in choosing among

125. *See* SCHAUER, *supra* note 3, at 109 (defining a "rule of thumb" as "a rule that is vulnerable to the inapplicability of its background justifications").

126. *Id.* at 135–66.

127. *Id.* at 31–34; Kathleen M. Sullivan, *Forward: The Justices of Rules and Standards*, 106 HARV. L. REV. 22, 58 (1992). Generally, a rule is over-inclusive when it applies to cases that do not fit with the reasons for the rule; a rule is under-inclusive when it fails to apply to cases that do fit with the reasons for the rule. *Id.*

128. This problem can also be addressed with admissibility rules designed to control the evidence on which decisions are made.

competing explanations, and 2) the outcomes will not always be straightforward and determinate. To the extent that rules and standards comprise two poles of a continuum based on discretion and determinateness, then perhaps the label "standard" is warranted.[129]

Two features, however, suggest that the label "rule" is more appropriate. First, the content of the directives is determined ahead of time rather than at the time of decisions.[130] Although what makes one explanation better than another will vary from case to case, the *quality of an explanation needed to satisfy the rule* remains constant. Second, standards allow for discretion in deciding cases by falling back on their underlying reasons, while rules may apply without reference to their underlying reasons.[131] In the context of proof rules, these reasons concern error minimization and allocation. Because no other criteria better serve these reasons—and because it would be inappropriate for fact-finders to make their own choices regarding these reasons—the second-order directives resemble rules rather than standards.[132] On this last point, the second-order rules fit Professor Kathleen Sullivan's description of a rule as "a standard that has reached epistemic maturity."[133] In this context, the epistemic maturity is recognizing that explanatory criteria are not only relevant for applying decision rules, they are necessary.

V. OPERATIONALIZING SECOND-ORDER RULES

The practical value of second-order rules depends on how they may potentially improve existing legal rules and practices. In this Part, I explore these issues on two levels: fact-finding at trials and procedural rules in civil and criminal cases that require judgments about the sufficiency of evidence.

A. *Jury Instructions*

Second-order rules are meant to improve factual decision-making by bringing decisions in line with the underlying goals of proof rules. These goals include minimizing errors and allocating the risk of error. Whether the second-order rules would have the desired effects regarding these goals is a complex empirical question. This question depends not only on the limitations noted earlier regarding proof rules,[134] but also on complex

129. *Id.*; *see also* SCHAUER, *supra* note 3, at 104 n.35 (rejecting "specificity" and "vagueness" as criteria for distinguishing rules and standards).

130. *Cf.* Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557, 560 (1992) (distinguishing rules and standards based on "the extent to which efforts to give content to the law are undertaken before or after individuals act").

131. *See* SCHAUER, *supra* note 3, at 73–76; Sullivan, *supra* note 127, at 58.

132. Santosky v. Kramer, 455 U.S. 745, 754–55 (1982).

133. Sullivan, *supra* note 127, at 62.

134. *See supra* notes 22–23 and accompanying text.

psychological questions regarding how jurors might understand and implement second-order rules.[135] In the absence of this information, the conclusions below can be only tentative at best. I discuss areas in which, based on current empirical understanding of juror decision-making, second-order rules are more likely to improve decision-making, and I provide reasons to think the rules will guide decisions toward the rules' underlying goals. I also note areas in which more empirical testing is needed.

The success or failure of second-order rules will depend on how jurors (and judges) implement them. To understand this, it is necessary to first examine the psychology of juror decision-making in the absence of such rules. The best empirical model of juror psychology is "the story model."[136] According to this well-confirmed[137] model, jurors impose a narrative structure on the evidence, attempting to organize the evidence they hear into coherent versions of events by using their background knowledge about analogous situations, generalizations about the world in general, and their assumptions about gaps in the evidence.[138] After constructing narratives, jurors then decide which narrative to accept based on three criteria: coverage, coherence, and uniqueness.[139] Finally, jurors consider verdict alternatives and match the narrative to the verdict categories, choosing the best fit between narrative and verdict category.[140] As a descriptive account of juror behavior, the story model provides some insight into where the second-order rules may be more or less helpful.

One situation in which they may not add much involves cases under the preponderance rule that depend on a choice between competing detailed explanations. According to the story model, jurors construct narratives to explain the evidence before them.[141] This suggests that *despite* clear guidance from the preponderance rule, jurors are already drawing conclusions in ways that are consistent with the explanatory criteria in a second-order preponderance rule. If this is so, then a further instruction may do more harm than good if it creates more confusion than current instructions. Alternatively, the instruction may solidify for jurors that their default decision-making process is a sound one, which may improve deliberations and outcomes. This is an issue that calls for more testing.

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135. Kevin M. Clermont, *Standards of Proof Revisited* 16, *available at* http://ssrn.com/abstract =1321029 ("The psychological mechanism for implementing standards of proof remains to be discovered.").

136. Nancy Pennington & Reid Hastie, *A Cognitive Model of Juror Decision Making: The Story Model*, 13 CARDOZO L. REV. 519, 520–21 (1991).

137. VIDMAR & HANS, *supra* note 119, at 135 ("Many subsequent studies . . . have lent support to the basic assumptions of the story model and expanded on its implications.").

138. Pennington & Hastie, *supra* note 136, at 523–25.

139. Pennington & Hastie, *supra* note 136, at 527.

140. Pennington & Hastie, *supra* note 136, at 529–30.

141. Pennington & Hastie, *supra* note 136, at 521–22.

Second-order rules may improve decisions under the preponderance rule, however, when cases depend on either general or disjunctive explanations. Unlike detailed narratives or stories, explanations can sometimes be quite general. For example, in a res ipsa loquitur case, an explanation such as "the defendant did something negligently that caused my injuries" may be a better explanation than the defendant's explanation, and thus satisfy the proof rule—without any particular narrative account supporting the plaintiff.[142] Second, unlike narratives or stories, explanations can be disjunctive (that is, they may be composed of inconsistent possibilities). For example, if a case was reduced to liability only if a stoplight were red—the explanatory process could be reduced to a choice between whether the light was red (explanation # 1) versus whether the light was green or yellow (explanation # 2).[143] Or a case with five distinct possibilities might be reduced to the plaintiff's explanation being "A or B" and defendant's being "C or D or E."[144] The explanations for comparison—whether general or specific, whether singular or disjunctive—would depend on the ways the parties choose to contrast the evidence and the details that matter to the substantive law. As with general explanations, choices among disjunctive explanations may come out differently under the proof rules than under the story model. Outcomes consistent with the proof rules will better serve their underlying goals, and thus, the rules will improve decision-making if they cause jurors to draw the conclusions they dictate.[145] Further testing may be needed to see whether the rules have this desired effect.

Second-order rules have the most potential to improve decision-making in cases in which the clear-and-convincing and BARD rules apply. In the absence of these rules, jurors may be (consistent with the story model) making decisions based on which side's explanation is better. If so, this more closely resembles decision-making under the preponderance rule. Therefore, second-order rules may function by pushing decisions to better accord with the asymmetrical allocation of errors mandated by the clear-and-convincing and BARD rules.[146] Moreover, there is reason to think that

142. *See* Byrne v. Boadle, 159 Eng. Rep. 299, 299–300 (Exch. 1863).

143. *See* Dale A. Nance, *Naturalized Epistemology and the Critique of Evidence Theory*, 87 VA. L. REV. 1551, 1578 (2001).

144. For examples of cases involving disjunctive explanations, see *Zuchowitz v. United States*, 140 F.3d 381 (2d Cir. 1998) (discussing the requirement that the defendant's actions must be a "but-for" cause of plaintiff's injury); *Rhesa Ship Co. v. Edmunds* (1985) Weekly Law Rep. 948 (H.L.(E.)) (defining what it means to prove a case on a "balance of probabilities").

145. More generally, evidentiary rules may be desirable whenever narrative reasoning is likely to lead to results that deviate from the goals of the proof process. *See* Doron Menashe & Hamutal E. Shamash, *The Narrative Fallacy*, 3 INT'L COMMENT. EVIDENCE 1, 8–9 (2005); *see also* Dan Simon, *A Third View of the Black Box: Cognitive Coherence in Legal Decision Making*, 71 U. CHI. L. REV. 511, 517–20 (2004).

146. Even the poorly understood first-order rules appear to have some effect on juror reasoning in this context. *See* Glockner & Engel, *supra* note 78 (suggesting that proof rules affect juror

second-order rules will improve matters because jurors (and judges) already appear to have problems understanding what is required by either first-order rule.[147] Second-order rules may improve matters by focusing decisionmakers on the types of explanations necessary to satisfy these rules. This is particularly important with the BARD rule. As Professor Lawrence Solan has demonstrated: many BARD instructions improperly direct jurors to search for explanations that point to innocence—or to closely scrutinize explanations offered by defendants—without first focusing on the strength or quality of the government's explanation.[148] The BARD second-order rule, however, focuses jurors on both sides of the equation, giving the level of scrutiny to each side suggested by the goals of the BARD rule.

B. *Sufficiency Reviews*

Second-order rules fit within existing civil- and criminal-procedural rules, and they guide and constrain judicial decision-making to align with their procedural goals. In both types of cases, procedural devices require judicial determinations of whether the evidence is sufficient to support a verdict. These devices include judgment as a matter of law and summary judgment in civil cases and sufficiency challenges by criminal defendants.

In civil cases, both judgment as a matter of law and summary judgments require courts to assess the sufficiency of the evidence. Judgments as a matter of law[149] may be entered against a party at trial or after a verdict when "the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue."[150] Prior to trial, parties may move for summary judgment by showing there is no "genuine" issue of fact and that they are "entitled to judgment as a matter of law."[151] The summary judgment standard, the U.S. Supreme Court has explained, "mirrors" the standard for judgments as a matter of law at trial—that is, whether "there can be but one reasonable conclusion as to the verdict."[152] A determination of what a reasonable jury could do "necessarily implicates the substantive evidentiary standard of proof that would apply at the trial on the merits."[153] In other words, what might be a reasonable conclusion (for purposes of either summary judgment or JMOL) under the preponderance rule might not be under the clear-and-convincing rule.

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inferences).

147. *See infra* Parts III.B–C.

148. *See* Solan, *supra* note 70, at 137.

149. FED. R. CIV. P. 50.

150. *Id.*

151. FED. R. CIV. P. 56.

152. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 250 (1986).

153. *Id.* at 252.

Because these procedural devices depend on the underlying proof rules, clarity regarding the rules is necessary for implementing the procedural devices. As discussed above, however, this has not been the case with either device.[154] Despite vigorous litigation and commentary surrounding these issues, little has been done to guide judicial decision-making on what is a reasonable or unreasonable conclusion based on the evidence. Second-order proof rules guide and constrain decision-making on this question in ways that foster the goals of the underlying first-order proof rules.

Consider first a case in which the preponderance rule will apply. Suppose the defendant (e.g., Betty in our contract example), who would not have the burden of proof at trial, moves for summary judgment or JMOL. Given the second-order rule, the defendant is entitled to summary judgment or JMOL when no reasonable jury could find the plaintiff's explanation to be a better explanation of the evidence and disputed events than the defendant's explanation (or those that favor the defendant).[155] If the plaintiff (e.g., Andy in our contract example) moves for summary judgment or JMOL, he ought to prevail when no reasonable jury could fail to find his explanation to be better than the defendant's.[156] Similar considerations apply to cases under the clear-and-convincing rule. If the defendant moves for summary judgment or JMOL, the motion ought to be granted when no reasonable jury could find the plaintiff's explanation clearly and convincingly better than the defendant's. And when the plaintiff moves for summary judgment or JMOL, the motion ought to be granted when no reasonable jury could fail to find the plaintiff's explanation to be clearly and convincingly better.

These procedural standards would guide and constrain decision-making in a number of beneficial ways. First, they focus judicial attention and lawyers' arguments on features of the evidence and the parties' abilities to explain it. Second, they constrain judicial reasoning by providing criteria for which conclusions are "reasonable" and "unreasonable"—in denying or granting motions, judges ought to provide reasons why some explanations are better or worse than others. Third, the standards guide and constrain outcomes consistent with the goals underlying the proof rules. Serving this function—that is, aligning outcomes with what is dictated by the proof rules—provides a sound theoretical foundation for these procedural devices. Finally, the standards protect parties' Seventh Amendment right to a jury trial. The constitutionality of both devices depends on the line

154. *See supra* Part III.D.

155. In other words, any reasonable jury must find defendant's explanation at least as good or better than plaintiff's explanation, otherwise summary judgment or JMOL is improper. *Anderson*, 477 U.S. at 250.

156. Any reasonable jury must find plaintiff's explanation better, otherwise summary judgment or JMOL is improper. *Id.*

between reasonable and unreasonable conclusions.[157] A judgment is constitutional so long as it is consistent with the only reasonable conclusion given the evidence; it is unconstitutional if a reasonable jury could find for the non-moving party. In providing order and clarity to this line between reasonable and unreasonable conclusions, second-order rules serve to protect the constitutional right to a jury trial.

In criminal cases, second-order rules also protect constitutional rights. Criminal defendants have a constitutional right to the BARD proof rule.[158] In addition, defendants may argue prior to, at, and after trial that the evidence against them is or was insufficient to prove their guilt BARD.[159] As discussed above, however, these sufficiency reviews are feckless, and courts lack criteria to guide and constrain their decision-making on this question.[160] As in civil procedure, second-order rules can fill this gap. The inquiry is whether a reasonable jury could find guilt BARD, and this, in turn, depends on what is required by the BARD rule. The second-order rule provides these requirements and thus criteria for determining whether a reasonable jury could find guilt BARD. Under the second-order rule, a fact is proven BARD when there is a plausible explanation that includes this fact and no plausible explanation that does not. Therefore, in arguing that the evidence is insufficient to support a conviction, defendants ought to succeed in their motions when: no reasonable jury could find both that (1) the prosecution's explanation is plausible, and (2) the absence of a plausible explanation supporting the defendant. In other words, a defendant ought to prevail on the motion by showing that any reasonable jury must find either (1) the prosecution's explanation to be implausible, or (2) the defendant's explanation to be plausible.

This sufficiency standard serves a number of important functions. First, it focuses judges' and lawyers' attention on features of the evidence in deciding and arguing about which inferences are reasonable. Second, it guides and constrains judges in their reasoning, providing criteria on which to make and justify these decisions. Third, it aligns decisions in this area with the important goals of error minimization and allocation underlying the proof rules. Finally, it provides order and clarity in order to protect the constitutional rights of criminal defendants.

VI. CONCLUSION

As argued in this Article, the adoption of second-order proof rules may improve not only factual decision-making at trial but also decisions on procedural judgments in both civil and criminal contexts. By providing

157. *See* Galloway v. United States, 319 U.S. 372, 395 (1943); Baltimore & Carolina Line, Inc. v. Redman, 295 U.S. 654, 659 (1935).

158. *In re* Winship, 397 U.S. 358, 361 (1970).

159. Jackson v. Virginia, 443 U.S. 307, 318 (1979); FED. R. CRIM. P. 29.

160. *See* Part III.D.

criteria for applying current rules, second-order rules may better align decision-making with its goals in these areas and may thus increase accuracy and more fairly allocate the risk of error.

I conclude by discussing two possible implications of the analysis in this Article. First, the move to second-order rules naturally invites questions about third-order (and *n*-order) rules. Are we now off on an infinite regress? And is this a problem? My answers here are: "not necessarily" and "no." It is possible that third-order (and *n*-order) rules may become desirable. For example, generalizations may emerge from applying second-order rules in certain types of cases such that it may be possible to identify stable criteria for identifying better and worse explanations. If rules employing these criteria foster decisions better in line with the underlying goals of the proof rules—then so much the better.[161] And within these third-order contexts, further generalizations may emerge, which may suggest additional rules, and so on. Now, it would be extremely difficult for higher-order rules to capture the diversity and complexity among individual cases to promote results consistent with the goals of the proof rules. But, if successful, the arguments in this Article would not preclude nor be challenged by these developments; they would be welcome extensions.

The second implication is the possibility of second-order rules in other areas of law. As noted in the Introduction, proof rules are just one example of decision rules within the law. The strategy of constructing second-order rules may thus have wider applications. Any factual conclusion in law will involve inferences based on possible explanations of the evidence. Therefore, the decision rules that govern these contexts may be supplemented with second-order rules. Some examples might be "substantial evidence" in the administrative context,[162] "probable cause,"[163] and reviews for "clear error"[164] and "harmless error."[165] Many legal questions also involve decision rules, as Mitchell Berman has demonstrated with regard to several constitutional issues.[166] Thus, second-order rules may be desirable here—or in any legal context—whenever the decision rules fail to guide and constrain decision-making consistent with their underlying goals.

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161. Such rules may be particularly helpful if there is wide divergence among jurors or judges on the threshold of what makes an explanation plausible in certain types of cases.

162. 5 U.S.C. § 706(2)(E) (2006).

163. U.S. CONST. amend. IV.

164. *See* FED. R. CIV. P. 52(a).

165. *See* Jason M. Solomon, *Causing Constitutional Harm: How Tort Law Can Help Determine Harmless Error in Criminal Trials*, 99 NW. U. L. REV. 1053, 1089–90 (2005) (noting uncertainty in harmless-error doctrine).

166. *See* Berman, *supra* note 2, at 10–17.