

LAW AND THE EPISTEMOLOGY OF DISAGREEMENTS

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ABSTRACT

This Article identifies a discrepancy between law and epistemology and proposes a way to fix it. Our legal system relies on decisions of multimember tribunals, which include juries, state and federal appellate courts, and supreme courts. Members of those tribunals often disagree with each other on matters of fact. The system settles such disagreement by applying head-counting rules: the unanimity or supermajority requirement for jury verdicts and the majority rule for judges' decisions. Under these rules, jurors can return an agreed-upon verdict even when their reasons for supporting the verdict are inconsistent with one another. Similarly, judges are authorized to deliver any decision so long as it is supported by a majority of the panel. Disagreements among judges and jurors are consequently ironed out instead of being accounted for as a factor that reduces the reliability of the final decision.

By adopting these rules, our legal system allows jurors to convict the defendant when six of them believe the incriminating account provided by one witness, while rejecting as non-credible the testimony of another prosecution witness, and the remaining six jurors form a diametrically opposite view of the two witnesses' credibility. Moreover, the system authorizes appellate courts to determine by a narrow 2-1 majority that a violation of the accused's constitutional trial right was "harmless beyond a reasonable doubt." Likewise, it accords the status of an unreservedly binding precedent to a 5-4 decision of the United States Supreme Court that determines the meaning of a statutory or constitutional provision.

These rules are fundamentally incompatible with the epistemological principles of rational fact-finding. The epistemology of disagreement maintains that when a person makes a factual finding and then realizes that an equally informed, competent, and honest individual—an "epistemic peer"—arrived at a different conclusion, based on the same information,

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she ought to scale down her level of confidence in her own opinion. A peer's disagreement is evidence writ large that a person cannot rationally ignore or discount. Rather, it must be given weight and cause one to revisit her original opinion.

This epistemological principle has far-reaching implications for the law. For example, a guilty verdict rendered by a jury cannot be considered unanimous when the underlying reasons contradict each other; a dissent by a single appellate judge should preclude a guilty sentence under the "beyond a reasonable doubt" standard; and a precedent laid down by a narrow majority of the Supreme Court should remain open to reconsideration.

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INTRODUCTION

Judges, jurors, and other decision-makers who make factual findings, identify applicable laws, ascertain the meanings of those laws, and determine their implications for individual cases are the lifeblood of our legal system. These decision-makers, however, often disagree with each other. The disagreements span across facts of individual cases and the meanings of statutes, common law doctrines, and the constitution. To address disagreements, the legal system has developed different decision rules for multimember tribunals, which include the unanimity or near-unanimity requirement for jury verdicts and the majority vote for appellate courts' and the Supreme Court's decisions.¹

Scholars have examined those rules from an economic, political, and psychological perspective.² Conspicuously absent from this list is the epistemology of disagreement—a rapidly developing discipline that analyzes the effects of a disagreement on the truth-value of the underlying decision.³

This discipline focuses on two big questions. First and most importantly, should a person revise and possibly modify her decision after learning that an “epistemic peer”—a decision-maker with roughly similar information and decisional capabilities—disagrees with it? Relatedly, does the fact that

1. See *infra* Sections II.B. and III.B.

2. See, e.g., J.H. Davis *et al.*, *The Empirical Study of Decision Processes in Juries: A Critical Review*, in *LAW, JUSTICE, AND THE INDIVIDUAL IN SOCIETY: PSYCHOLOGICAL AND LEGAL ISSUES* 341 (June L. Tapp & Felice J. Levine, eds., 1977) (surveying psychological studies of jury deliberations as a group); Frank H. Easterbrook, *Ways of Criticizing the Court*, 95 *HARV. L. REV.* 802, 811–17 (1982) (arguing that the Supreme Court is doomed to make inconsistent decisions, as predicted by Kenneth Arrow's “impossibility theorem”); Lewis A. Kornhauser & Lawrence G. Sager, *The Many as One: Integrity and Group Choice in Paradoxical Cases*, 32 *PHIL. & PUB. AFFS.* 249 (2004) (identifying structural distortions in democratic group choices); Lewis A. Kornhauser & Lawrence G. Sager, *The One and the Many: Adjudication in Collegial Courts*, 81 *CAL. L. REV.* 1 (1993) (uncovering and analyzing voting paradoxes in appellate court decisions); Lewis A. Kornhauser & Lawrence G. Sager, *Unpacking the Court*, 96 *YALE L.J.* 82 (1986) (identifying systemic misalignment between reasons and decisions of multimember tribunals); Stephen Morris, *The Common Prior Assumption in Economic Theory*, 11 *ECON. & PHIL.* 227 (1995) (surveying economic models presupposing that actors have a common prior probability for making decisions and analyzing the models' implications); Eric Posner & Adrian Vermeule, *The Votes of Other Judges*, 105 *GEO. L.J.* 159, 175–80 (2016) (developing theory of interdependent judicial voting as a rational choice that includes reciprocal updating of information).

3. For two notable exceptions, see William Baude & Ryan D. Doerfler, *Arguing with Friends*, 117 *MICH. L. REV.* (forthcoming 2018) (manuscript at 17–27), <https://ssrn.com/abstract=2985032> (drawing on epistemology of disagreement to develop a concept of “methodological friends” to whose opinions judges should give weight in interpreting Constitution); Youngjae Lee, *Reasonable Doubt and Disagreement*, 23 *LEGAL THEORY* 203 (2017) (introducing a normative assumption that ascribes equal weight to jurors' divergent assessments of the probability of criminal accusations and identifying its effect on the aggregate probability of the defendant's guilt).

an equally informed and competent decision-maker disagrees with the person's decision reduce the decision's reliability?⁴

As I explain in this Article, both of these questions should be answered affirmatively.⁵ When a person's decision encompasses factual findings, the fact that her epistemic peer disagrees with her makes the decision less reliable than the decision-maker originally thought. Any such disagreement is evidence writ large, which the person cannot justifiably ignore, concerning the accuracy of the decision. From an epistemological perspective, a decision-maker must revise her confidence in the decision in a way that takes account of her peer's disagreement.

The revision process can proceed along one of three different paths. First and most straightforwardly, a decision-maker may decide to modify her initial decision. Alternatively, she may acknowledge that her decision is not as reliable as she originally thought. Finally, she may choose to disavow her factual claims and recast her decision into a subjective opinion, intuition, or value preference. From an epistemological standpoint, if the person digs her heels in the ground and makes neither of these decisional adjustments, her decision would be unjustified, if not altogether irrational.⁶

To illustrate this pivotal insight, consider a case featuring two young associates in a law firm, Anna and Bill, who go out to lunch together and agree to split the check. When the check arrives, Anna and Bill glance at the check and continue their conversation. Ten minutes later, they discover that the check disappeared from the table. Asking the waiter to bring a new check is against social etiquette. Anna calculates that she and Bill must pay for the meal \$26 each. She tells Bill about it, but Bill informs her that according to his calculation, each must pay \$30. Can Anna justifiably refuse to modify her decision?⁷

Epistemologists widely believe that Anna cannot justifiably refuse to do so.⁸ Bill and she have the same information about the cost of the meal.

4. See generally David Christensen & Jennifer Lackey, *Introduction*, in *THE EPISTEMOLOGY OF DISAGREEMENT: NEW ESSAYS* 1, 1–3 (David Christensen & Jennifer Lackey, eds., 2013) (outlining issues focused upon by epistemologists of disagreement). For excellent surveys of the literature, see Jonathan Matheson, *Disagreement and Epistemic Peers*, in *OXFORD HANDBOOKS ONLINE: SCHOLARLY RESEARCH REVIEWS* (2015) [<https://perma.cc/5UJY-4HDF>]; David Christensen, *Disagreement as Evidence: The Epistemology of Controversy*, 4 *PHIL. COMPASS* 756 (2009) [hereinafter Christensen, *Disagreement as Evidence*]. See also Mattias Skipper & Asbjørn Steglich-Petersen, *Group Disagreement: A Belief Aggregation Perspective*, 195 *SYNTHESE* (forthcoming in 2018) (extending epistemological inquiry to disagreements among groups).

5. See *infra* Section I.B.

6. *Id.*

7. This example is adapted from David Christensen, *Epistemology of Disagreement: The Good News*, 116 *PHIL. REV.* 187, 193–94 (2007) [hereinafter Christensen, *Epistemology of Disagreement*].

8. See Christensen & Lackey, *supra* note 4, at 2. For a contrary view, see Thomas Kelly, *The*

Presumptively, Bill's memory and capacity to make simple algebraic calculations is not inferior to Anna's. Bill's disagreement with Anna consequently constitutes evidence that requires Anna to revise and modify her statement. Perhaps Anna should tell Bill that, since he and she were equally likely to miscalculate the requisite payment, each of them should leave \$28 on the table.⁹ At a minimum, Anna ought to acknowledge that her decision is not as reliable and creditworthy as she initially thought it was.¹⁰

The fact that a person's epistemic peer disagrees with her is best conceptualized as second-order evidence.¹¹ Second-order evidence is a broad category: it includes any information pertaining to the reliability and implications of the primary (first-order) evidence that supports the person's factual findings. From this perspective, Bill's disagreement with Anna constitutes second-order evidence that affects the reliability of Anna's factual finding. This disagreement indicates that Anna may have miscalculated the payment, or, alternatively, missed something when she looked at the check. Hence, if Anna is interested in making an epistemically justified decision, she ought to account for these possibilities and update her initial finding accordingly. Not doing so would be a mistake. If Anna could justifiably ignore Bill's calculation, then Bill, too, could justifiably do the same and stand steadfastly behind his original evaluation. Consequently, both Bill's and Anna's decisions would be deemed creditworthy and reliable, which is patently absurd.

This epistemological insight has profound implications for the law. Specifically, it can help policymakers improve the rules governing non-unanimous decisions of multimember tribunals: the jury, courts of appeals, state supreme courts, and the United States Supreme Court. These tribunals consist of epistemic peers¹²: judges and jurors who exercise equal participatory powers in the tribunal's decision after weighing the same

Epistemic Significance of Disagreement, in 1 OXFORD STUDIES IN EPISTEMOLOGY 167 (John Hawthorne & Tamar Gendler eds., 2005) (arguing that whether a person is justified in believing something is solely a matter of her first-order evidence even when she faces a peer's disagreement because to the extent her belief requires second-order validation, her peer's contrary belief requires it too—and hence a “wash,” which justifies each side to disregard the dissent).

9. This adjustment follows the “equal weight” principle for resolving peer disagreements. See Adam Elga, *Reflection and Disagreement*, 41 NOÛS 478, 484–90 (2007) (analyzing the “equal weight” principle). For criticism of this principle, see *infra* notes 43–48 and accompanying text.

10. See Christensen, *Epistemology of Disagreement*, *supra* note 7, at 193.

11. See Richard Feldman, *Evidentialism, Higher-Order Evidence, and Disagreement*, 6 EPISTEME 294, 295 (2009) [hereinafter Feldman, *Evidentialism*] (“[E]vidence of peer disagreement is . . . higher-order evidence—evidence about the significance of one's first-order evidence.”); Matheson, *supra* note 4, at 5–6.

12. See Matheson, *supra* note 4, at 2–3 (defining “epistemic peers” in terms of decision-makers' equality in evidential possession and ability to process evidence).

evidence and same information about relevant legal issues. At the end of the proceeding, these epistemic peers consult with each other, deliberate and vote. They do not always vote the same way, and for that reason their disagreements must be properly accounted for in the final decision. Unfortunately, rules that presently resolve such disagreements do not achieve this result.¹³

Consider a bank robbery case in which twelve jurors unanimously conclude that the defendant perpetrated the alleged crime. Of the twelve, six base their conclusion on the testimony of a passerby who identified the defendant as a robber, while rejecting as untrustworthy a similar testimony of the bank's cashier. The remaining six form the opposite view: they believe the cashier and assign no credibility to the passerby. From an epistemological point of view, the dissent coming from each group of jurors reduces the reliability of the other jurors' decision. This second-order evidence undercuts the credibility that jurors assign to each witness to a degree that arguably should preclude the jury from convicting the defendant.

Assume now that ten jurors out of twelve unreservedly believe the passerby, while the remaining two jurors do not consider any of the witnesses credible. From an epistemological standpoint, the prosecution's case now becomes stronger than before. Although the defendant can still rely on the two jurors' dissent as second-order evidence, this dissent has weak epistemic credentials because the ten other jurors rejected it. Arguably, therefore, the dissent here is not strong enough to create a reasonable doubt as to whether the defendant robbed the bank.

In each of these disagreement scenarios, the prevalent rules of criminal procedure go in the opposite direction. These rules require that jurors' guilty verdicts be unanimous, but the unanimity requirement only applies to the bottom line.¹⁴ All that jurors need to agree about is that the defendant committed the crime of which he is accused beyond a reasonable doubt. Their reasons for arriving at this conclusion need not be the same and may even be mutually inconsistent.¹⁵ Under these rules, the judge presiding over the case in the first scenario must instruct the jurors that they should convict the defendant, whereas in the second scenario the judge must declare a mistrial.¹⁶ The fact that the prosecution's case is epistemically weaker in the

13. See *infra* Section II.B.1.

14. See *infra* Section II.B.1 (analyzing and criticizing the "bottom line" rule).

15. See *infra* note 66 and sources cited therein. See also *infra* Section II.B.1 (discussing the "bottom line" rule).

16. See *infra* Section II.B.2 (discussing the "hung jury" rule).

first scenario than in the second is of no consequence. Criminal procedure and epistemology thus sail apart from each other. This sailing apart diminishes the truth-value of verdicts and court decisions.

Consider now a criminal appeal decided by a panel of three judges. Two judges estimate that the evidence presented at the defendant's trial allowed the jury to find him guilty beyond a reasonable doubt, while the remaining judge disagrees. From an epistemological standpoint, here too, the dissenting opinion makes the majority decision less reliable. Whether this factor should mandate reversal of the defendant's conviction is a separate question and not an easy one. The answer to this question depends on the socially desired level of appellate scrutiny. In deciding what this level should be, policymakers should take the epistemology of disagreement into account. Failure to do so is bound to create distortions in the appellate system.¹⁷

Take a defendant who appeals his conviction and shows a violation of his Sixth Amendment right to confront witnesses.¹⁸ Under extant law, the court of appeals may still uphold the defendant's conviction if it determines that the violation was "harmless beyond a reasonable doubt."¹⁹ Moreover, this determination can be made by two appellate judges over their peer's disagreement. From an epistemological perspective, two-against-one decisions in criminal cases are unjustified. The dissenting judge's opinion that the error helped the prosecution prove the defendant's guilt and was consequently harmful reduces the reliability of the majority's decision and creates a reasonable doubt as to whether the error was harmless.²⁰

Finally, consider a disagreement among the United States Supreme Court Justices about the meaning of a statutory or constitutional provision. Five Justices out of nine decide that the provision in question has a certain meaning (*M1*). The remaining four Justices disagree: according to them, the provision has a different meaning (*M2*). From an epistemological standpoint, the critical question here is whether these conflicting understandings are about facts, as would be the case, for example, if *M1* and *M2* purported to reproduce the directive that the Constitution's framers intended to lay down. If the Justices genuinely disagree about the truth of *M1* as opposed to *M2*, the fact that four of them favor *M2* over *M1* should count as second-order evidence that decreases the reliability of the

17. See *infra* Section III.A.

18. See U.S. CONST. amend. VI (granting every criminal defendant the right "to be confronted with the witnesses against him").

19. See *infra* notes 153–156 and accompanying text.

20. See *infra* Section III.B.

majority's decision. The majority, of course, should still have its way. After all, the Court must interpret the provision in question one way or the other, and a decision of five Justices is still more reliable than their four colleagues' dissent. From an epistemological standpoint, however, a 5–4 decision on a factual matter should be assigned a diminished truth-value relative to a unanimous or supermajority decision. For that reason, it should receive less deference from lower courts and should also be more open for reconsideration than decisions made by six or more Justices.²¹

This Article calls for the incorporation of the insights of the epistemology of disagreement into law and provides a blueprint of how it should be done.

Structurally, the Article proceeds in four parts. In Part I, I outline the core insights developed by this branch of analytical philosophy and connect them to law and legal theory. In Parts II, III, and IV, respectively, I identify the implications of those insights for jurors' disagreements about a verdict and the verdict's supporting reasons, for disagreements among appellate judges on whether the decision appealed against should stand, and for disagreements about the meanings of statutory and constitutional provisions that unfold in state supreme courts and at the United States Supreme Court.

I. THE EPISTEMOLOGY OF DISAGREEMENT

A. *Disagreement as Evidence*

Should a person revise her belief when she finds out that another, equally informed, individual sees the facts differently?²²

This question entered the epistemological debate at the beginning of this century²³ and stirred a controversy that is not about to end.²⁴ Both sides to

21. See *infra* Section IV.A.

22. See Christensen, *Epistemology of Disagreement*, *supra* note 7, at 188–89 (formulating the same question).

23. For a seminal work on the subject, see Richard Feldman, *Reasonable Religious Disagreements*, in *PHILOSOPHERS WITHOUT GODS: MEDITATIONS ON ATHEISM AND THE SECULAR LIFE* 194 (Louise M. Antony, ed. 2007) [hereinafter Feldman, *Religious Disagreements*].

24. See generally THE EPISTEMOLOGY OF DISAGREEMENT: NEW ESSAYS, *supra* note 4 (representative collection of essays); see also Matheson, *supra* note 4 (analyzing epistemological approaches to peer disagreement and recommending treating such disagreements as evidence); Christensen, *Disagreement as Evidence*, *supra* note 4 (same); Kelly, *supra* note 8 (arguing that a peer's dissent is not a reason a rational individual to update her findings of fact); Elga, *supra* note 9 (advocating the “equal weight” approach to peer disagreements); David Enoch, *Not Just a Truthometer: Taking Oneself Seriously (But Not Too Seriously) in Cases of Peer Disagreement*, 119 *MIND* 953 (2010) (surveying the epistemological debate on peer disagreement, criticizing the “equal weight” and other conciliatory approaches, and proposing a common-sense approach).

this controversy agree that a person need not revise her belief when her dissenter is not as well informed about the relevant facts as she is. The dissenter's opinion can only be consequential when he bases it on the same evidence and same background information. The dissenter's opinion also must be honest rather than intentionally misleading or strategic. As epistemologists put it, the dissenter must be the person's epistemic peer.²⁵

Some epistemologists adopt a non-conciliatory, or steadfast, approach to peer disagreements.²⁶ They argue that a peer's disagreement with a person's justified belief does not call for a revision of that belief. According to these epistemologists, a person should only care about the connection between her belief and the available evidence. When the evidence justifies the belief, the person should hold onto that belief. Because her belief is justified by the available evidence, the dissenter's contradictory opinion cannot be justified as well.²⁷ The person consequently will do well to ignore that opinion.

The proponents of the steadfast approach also underscore the dependency of individuals' beliefs on their reasoning faculties. Arguably, when a person's belief originates from the interaction between her reasoning faculties and the available evidence, the dissenter's contradictory belief—being a product of different reasoning faculties—is immaterial.²⁸ Each of those conflicting beliefs is justified on its own terms and is consequently as good as the other belief. Hence, granted that the person must account for the dissenter's opinion as a factor that makes her belief less dependable than she originally thought it was, the dissenter must do the same with his own opinion. The dissenter's opinion must undergo the same discounting because it is being disagreed with as well. This discounting will offset the doubt created by the dissenter and reinstate the person's original faith in her own belief.²⁹

Other epistemologists believe that the steadfast approach is mistaken and endorse, instead, a conciliatory approach to peer disagreements.³⁰ Under the conciliatory approach, a peer's disagreement constitutes evidence that the

25. See Matheson, *supra* note 4, at 2–3. See also Christensen, *Disagreement as Evidence*, *supra* note 4, at 756–57 (defining “epistemic peer” as one’s equal “in terms of exposure to the evidence, intelligence, freedom from bias, etc.”).

26. See, e.g., Kelly, *supra* note 8 (recommending the steadfast approach).

27. See, e.g., Ralph Wedgwood, *The Moral Evil Demons*, in DISAGREEMENT 216, 228 (Richard Feldman & Ted A. Warfield, eds., 2010).

28. *Id.*

29. See Kelly, *supra* note 8, at 177–79 (explaining the “wash” principle).

30. See generally Elga, *supra* note 9; Feldman, *Evidentialism*, *supra* note 11; Feldman, *Religious Disagreements*, *supra* note 23; Christensen, *Disagreement as Evidence*, *supra* note 4; Christensen, *Epistemology of Disagreement*, *supra* note 7; Matheson, *supra* note 4.

person cannot rationally ignore.³¹ Conceptually, such disagreements are best understood as second-order evidence that reduces the reliability of the person's belief.³² This second-order evidence indicates that the person's belief may have some flaws that she failed to identify. The person therefore cannot simply brush the dissent aside. Doing so would amount to an epistemically irrational disregard of relevant evidence.³³

The steadfast approach is suitable for decision-makers who justifiably believe that they know the true facts.³⁴ Consider a decision-maker who holds a justified belief in the occurrence of event *E*. This belief is justified for the following reason: evidence supporting it is counterfactually sensitive to *E* in the sense that such evidence never shows up when *E* does not occur and is always present in *E*'s occurrence. Evidence that passes this rigorous test, identified as "sensitivity,"³⁵ does more than merely justify the decision-maker's belief: it also makes the decision-maker's belief likely correct.³⁶

Assume now that the decision-maker encounters a dissenter who tells her that, in his opinion, *E* actually did not occur. The dissenter gives the decision-maker no information besides this opinion. Because the dissenter is a human being and is not omniscient, his opinion fails the sensitivity test. This failure is predicated on the fact that the dissenter occasionally makes mistakes and it is therefore entirely possible for him to express an opinion about an event's non-occurrence in a case in which the event actually does occur. Hence, although the dissenter's opinion still constitutes evidence that runs against the decision-maker's belief, the decision-maker can safely ignore it because her evidence passed the sensitivity test and the dissenter's opinion failed it.

The upshot of this discussion is straightforward. Justified beliefs in true facts are self-sufficient: they require no headcounts or other second-order confirmations.³⁷ Holders of such categorical beliefs can rationally stick to their guns until they are presented with new evidence that falsifies their

31. See *supra* note 30 and sources cited therein.

32. See *supra* note 11 and sources cited therein.

33. *Id.* There is also a middle-ground view that justifies switching between the steadfast and conciliatory approaches, as circumstances require. See Enoch, *supra* note 24, at 965. Ultimately, Enoch seems to support a rebuttable presumption in favor of conciliation. See *id.* at 993 ("[T]hat someone you (justifiably) take to be your peer disagrees with you about *p* should *usually* reduce your confidence in *p*." (emphasis added)).

34. Cf. Enoch, *supra* note 24, at 994 (arguing that a person's rational choice between the steadfast and conciliatory approaches depends, inter alia, on "other things [the person justifiably] believe[s], on other evidence [she has,] [and] on the epistemic methods [she is] justified in employing . . .").

35. See TIMOTHY WILLIAMSON, KNOWLEDGE AND ITS LIMITS 147–50 (2000).

36. *Id.*

37. *Id.* at 147.

beliefs. The mere fact that another individual disagrees with a person's justified categorical belief is of no consequence.

Move now to non-categorical, or defeasible, beliefs, also identifiable as probabilistic. Consider a decision-maker who forms a belief in the likely, but still not certain, occurrence of event *E*. In forming that belief, the decision-maker relies on evidence indicating that *E* probably has occurred. This indication is uncertain because similar evidence was also present, although not as frequently, in circumstances different from *E*. The decision-maker encounters a dissenter who estimates that *E* was unlikely to occur because—according to her experience or intuition—circumstances in which similar evidence was present, but *E* nonetheless did not occur, are not rare.

The two parties may now try to compare their experiences in the hope to reach an agreement. Reaching such an agreement, however, would often be difficult, if not altogether impossible, because people's experiences and intuitions are not—and need not be—identical. Such incompatibilities of opinion on matters of fact are inevitable and widespread. This pluralism often proves to be constructive in that it prompts people to be self-critical and periodically revise their opinions and beliefs. Yet, it does not indicate that the parties to a disagreement are both right. In fact, the exact opposite is the case: one of those parties, if not both of them, is mistaken. Each party should therefore acknowledge the defeasibility of her own decision.

For decisions based on defeasible beliefs in the underlying facts, second-order confirmations and disconfirmations matter a lot. If so, the number of well-informed individuals opining on whether the underlying factual proposition, or belief, is likely to be true is also of consequence. As the old saying goes, “Two heads are better than one.”³⁸

The implications of this epistemological insight are straightforward. People seldom make any decisions that rest upon justified categorical beliefs in the truth of the underlying facts.³⁹ Beliefs underlying people's decisions are overwhelmingly probabilistic and defeasible.⁴⁰ They incorporate experience and intuitions by which the decision-makers interpret evidence.⁴¹ Any such belief is consequently weakened by the

38. JOHN HEYWOOD, *DIALOGUE OF PROVERBS I 9* (Julian Sharman ed., 1874).

39. See, e.g., ALEX STEIN, *FOUNDATIONS OF EVIDENCE LAW* 34–36 (2005) (explaining why certainty in factfinding is not within reach).

40. See, e.g., Peter Tillers, *Introduction*, 66 B.U. L. REV. 381, 381 (1986) (“Practically every lawyer, judge, and law teacher believes that some degree of uncertainty infects nearly all inferences drawn from evidence.”).

41. See, e.g., Steven Lubet, *The Forgotten Trial of Wyatt Earp*, 72 U. COLO. L. REV. 1, 4 (2001) (“This is an inevitable feature of historical fact finding—the use of one's experience and intuitions to deduce what must have happened.”) (emphasis omitted); Louis L. Jaffe, *Judicial Review: Question of Fact*, 69 HARV. L. REV. 1020, 1040 n.69 (1956) (“[A]ll fact finding must rest to some degree on

existence of an equally informed dissenter. A person who faces such a dissenter therefore must reduce her level of confidence in the opinion she holds about relevant facts and become aware of the possibility that it is mistaken. The person will then have to evaluate the implications of that prospect for her position. Specifically, she must compare the scenario in which she stands behind her opinion, but it turns out to be a mistake, against the scenario in which she accepts the dissenter's opinion, but the dissenter's opinion proves to be erroneous. Consequences of these two possible errors may differ in their severity, and the person should take it into account as well. The person should make a decision that brings about the least harmful consequences.

Under this decisional framework, harmful consequences of errors are the only factor the person should consider. The person should not venture into estimating the expected harm by combining those consequences with her self-assessed probability of making a wrong decision. This probability is part and parcel of the person's disagreement with her epistemic peer. The person also cannot rationally assume that her peer is more error prone than she is.⁴²

As an alternative to scaling down a person's confidence in her factual finding, some epistemologists have proposed to integrate a peer's disagreement into that finding.⁴³ To operationalize this proposal, they introduced the "equal weight" principle.⁴⁴ This principle stems from the premise that a person has no rational basis for asserting epistemic superiority over her epistemic peer.⁴⁵ Under this premise, when a person's epistemic peer disagrees with her opinion, the person must give the peer's opinion the same weight that she gives her own opinion.⁴⁶ The person and her peer will then have an equal (fifty percent) probability of getting the facts right.⁴⁷

intuition."); JEROME FRANK, COURTS ON TRIAL 165–85 (1949) (underscoring the central role of intuitions in courts' decisions about facts).

42. See Elga, *supra* note 9, at 486 ("When you learn of your friend's opposing judgment, you should think that the two of you are equally likely to be correct. For suppose not—suppose it were reasonable for you to be, say, 70% confident that you are correct. Then you would have gotten some evidence that you are a better judge than your friend, since you would have gotten some evidence that you judged this race correctly, while she misjudged it. But that is absurd.")

43. This proposal is known as "strong Conciliationism." See Christensen, *Disagreement as Evidence*, *supra* note 4, at 759.

44. See Elga, *supra* note 9, at 484–90.

45. *Id.* at 486–87.

46. *Id.*

47. *Id.*

The “equal weight” principle, however, might produce distortions.⁴⁸ Of two individuals who make conflicting factual findings, one must be right and another must be wrong. Alternatively, both individuals may be wrong. Under any of these circumstances, giving epistemic credit to each of the conflicting findings is anomalous.

To see why, assume that the two individuals are similarly trained surgeons who disagree on how to operate on a patient. Assume further that one of the surgeons is right and another is completely off target. Having these surgeons proceed on the “equal weight” principle will bring about bad consequences. The “equal weight” principle would recommend that each surgeon suppresses her opinion and delivers the treatment favored by her dissenter to every second patient. If the surgeons follow that recommendation, half of the total population of patients would receive wrong treatment. Allowing each surgeon to treat patients according to her own judgment would therefore be a much better policy. This policy would allow one of the two surgeons to deliver proper treatment to all of her patients. The mistaken surgeon might still mistreat all of his patients, so that half of the total population of patients—the same number as under the “equal weight” principle—will suffer. This worst-case scenario, however, is unlikely to materialize. A streak of successful surgeries carried out by the surgeon who happens to be right will create new information that will bring more patients to that surgeon. Conversely, a series of fiascos wrought by the mistaken surgeon will motivate his prospective patients to find another doctor.

Decision-makers will therefore do well to treat their peer’s disagreement as second-order, rather than first-order, evidence. Facing such disagreement, they can still hold onto their opinion, but they must reduce their confidence in it and act accordingly. The surgeons in my example should follow this principle. Each of them should scale down the level of confidence in the treatment that he or she recommends. This update will make the treatment’s probability of success unclear and not as dependable

48. This principle is akin to the statistical principle of indifference that determines the implications of the unavailable information for people’s assessments of probability. *Cf.* Elga, *supra* note 9, at 487 (“When you learn of your friend’s opposing judgment, you should think that the two of you are equally likely to be correct If it were reasonable for you to give your own evaluation extra weight—if it were reasonable to be more than 50% confident that you are right—then you would have gotten some evidence that you are a better evaluator than your friend.”). The indifference principle postulates that unavailable information is not slanted in any direction. Under this simplifying assumption, two (or more) mutually exclusive scenarios should be deemed equally probable unless there is evidence that makes one of those scenarios more probable than the alternative(s). *See* L. JONATHAN COHEN, AN INTRODUCTION TO THE PHILOSOPHY OF INDUCTION AND PROBABILITY 43–44 (1989) (explaining the principle of indifference).

as before. Whether the surgeon should still go ahead with the treatment is a separate question and a complicated one as well. The answer to this question depends on what would happen to the patient if the treatment is withheld. If withholding the treatment is bad for the patient, the surgeon should go ahead and treat the patient as she deems right. Conversely, when not implementing the treatment exposes the patient to a relatively small risk of harm, the surgeon's reduced confidence in the treatment might be a good reason for her to stay put.

B. Implications for Law and Legal Theory

Our legal system has three fundamental characteristics that make the epistemology of disagreement critical for understanding and improving its functioning. These characteristics are: the importance of truth, the reliance on defeasible beliefs under conditions of uncertainty, and the employment of multimember tribunals on both trial and appellate levels.

Begin with the most intuitive of those characteristics: the importance of truth.⁴⁹ Our legal system deeply cares about convicting and punishing only those defendants who committed the alleged crimes as a matter of fact. The system also makes a sustained effort at imposing liability for torts, breaches of contract, and other civil wrongs only upon people who actually committed those misdeeds. The system is equally concerned with the accuracy of appellate courts' determinations as to whether the trial judge erred in admitting or refusing to admit evidence, in instructing the jury about the law, or in ruling on other procedural matters, and whether that mistake actually affected the outcome of the case. By the same token, in cases involving application of a statute or constitutional provision, the system often cares about ascertaining the provision's true meaning.⁵⁰ Courts consequently need to make factual determinations as to what the provision actually says and what its drafters intended to communicate.⁵¹

Within each of these decision-making frameworks, getting to the truth is easier said than done. For the most part, facts that courts need for resolving

49. See generally Louis Kaplow, *Information and the Aim of Adjudication: Truth or Consequences?*, 67 STAN. L. REV. 1303 (2015) (juxtaposing truth against instrumental goals of the legal system).

50. See Gary Lawson, *Proving the Law*, 86 NW. U. L. REV. 859, 859–60, 862–66 (1992) (describing inquiries into the meanings of legal rules as epistemological and recommending setting up burdens of proof and other evidentiary requirements for establishing those meanings in the courts of law).

51. Lawson, *supra* note 50, at 874–77; see also Ryan D. Doerfler, *High-Stakes Interpretation*, 116 MICH. L. REV. 523 (arguing that ascertaining the meaning of a statutory text in high-stakes cases is more difficult and calling for courts to exercise greater caution as interpreters).

controversies remain unrevealed private information.⁵² Furthermore, because one party to a proceeding stands to lose the case following the discovery of true facts, this party will make a serious—and oftentimes successful—effort at suppressing or distorting the truth.⁵³ Worse yet, in the majority of the cases, courts must determine the relevant facts on the basis of incomplete evidence and within severe time constraints.⁵⁴ For these reasons and in order to economize on the cost of adjudicative proceedings, judges and juries have no choice but to make defeasible—rather than categorical—decisions on matters of fact. They have to base their factual determinations on probabilities, as opposed to certainties.⁵⁵ These probabilities incorporate subjective inputs. Both judges and jurors determine them by analyzing evidence through the lens of their experiences and intuitions.⁵⁶

Our legal system also has established multimember tribunals for making adjudicative decisions. These tribunals include the jury, appellate courts, and, of course, the Supreme Court of the United States. The primary (albeit not only⁵⁷) goal of their creation is rectitude of decision⁵⁸: the system’s need to make adjudicative findings of both fact and law as accurately as possible.⁵⁹ To achieve this goal, the system places the power of making decisions about people’s rights, duties, and liabilities and about the

52. See, e.g., Robert H. Gertner & Geoffrey P. Miller, *Settlement Escrows*, 24 J. LEGAL STUD. 87, 89–90 (1995) (observing that private information is prevalent in civil litigation).

53. See Gideon Parchomovsky & Alex Stein, *The Distortionary Effect of Evidence on Primary Behavior*, 124 HARV. L. REV. 518, 521 & n.6 (2010) (observing that “[a] person interested in prevailing in court will tend to act in a way that maximizes the probability of achieving that result” and citing sources). See generally Steven Shavell, *The Fundamental Divergence Between the Private and the Social Motive to Use the Legal System*, 26 J. LEGAL STUD. 575 (1997).

54. See, e.g., Jack B. Weinstein, *Some Difficulties in Devising Rules for Determining Truth in Judicial Trials*, 66 COLUM. L. REV. 223, 229 (1966) (observing that courts must rely on incomplete information in making decisions).

55. *Id.* at 241 (“Adjudication is a practical enterprise serving a variety of functions. Among the goals—in addition to truth finding—. . . are economizing of resources.”). See also Tillers, *supra* note 40, at 381 (noting consensus among scholars and practitioners that adjudicative factfinding deals with probabilities rather than certainties).

56. See *supra* note 41 and sources cited therein.

57. The jury system also promotes democracy and civic involvement. See, e.g., Heather K. Gerken, *Second-Order Diversity*, 118 HARV. L. REV. 1099, 1112–17 (2005).

58. The term “rectitude of decision” originates from Jeremy Bentham. See 1 JEREMY BENTHAM, *RATIONALE OF JUDICIAL EVIDENCE* 34 (Fred B. Rothman & Co. 1995) (1827).

59. See, e.g., *Tehan v. United States ex rel. Shott*, 382 U.S. 406, 416 (1966) (“The basic purpose of a trial is the determination of truth”); *Delaware v. Van Arsdall*, 475 U.S. 673, 681 (1986) (“[T]he central purpose of a criminal trial is to decide the factual question of the defendant’s guilt or innocence”). The same also holds true of questions of law. See RONALD DWORKIN, *LAW’S EMPIRE* 225 (1986) (“[P]ropositions of law are true if they figure in or follow from the principles of justice, fairness, and procedural due process that provide the best constructive interpretation of the community’s legal practice.”).

meanings of statutes and constitutions in the hands of equally informed and (more or less) equally competent decision-makers: judges and jurors. These decision-makers function as epistemic peers.

These characteristics call for adoption of the conciliatory approach to disagreements among members of these tribunals. When members of a legal tribunal disagree on matters of fact, their disagreement should be recognized as second-order evidence that makes the underlying factual finding less likely to be accurate and consequently less dependable. Failure to adopt this approach is bound to create distortions in the tribunals' decisions.

My proceeding discussion explains and illustrates this pivotal insight in relation to three core mechanisms of our legal system: the jury trial, the appellate review process, and the formation of precedent in matters of statutory and constitutional interpretation.

II. DISAGREEMENTS WITHIN THE JURY

Laws regulating jurors' voting focus exclusively on the final verdict and the agreement that must support that verdict. Under these laws, jury verdicts about a criminal defendant's guilt or a civil defendant's liability need to be supported by the requisite number of impartial jurors.⁶⁰ Criminal verdicts must be unanimous except in Louisiana and Oregon, where ten jurors out of twelve can convict the accused.⁶¹ For the most part, civil verdicts can nowadays be delivered by a supermajority of jurors: typically, by nine jurors out of twelve.⁶² Federal law and a number of states that still require

60. See, e.g., *Batson v. Kentucky*, 476 U.S. 79, 87–89 (1986) (reaffirming criminal defendants' constitutional right to be tried by impartial and racially unbiased jurors).

61. See LA. CONST. art. I, §17(A) (authorizing ten jurors out of twelve to return a guilty verdict, but findings of guilt in capital crimes must be unanimous); OR. CONST. art. I, § 11; *Johnson v. Louisiana*, 406 U.S. 356 (1972) (similar holding for Louisiana's previous rule, which allowed nine jurors out of twelve to return a guilty verdict in a noncapital case; *Apodaca v. Oregon*, 406 U.S. 404 (1972) (upholding constitutionality of Oregon law that allows ten jurors out of twelve to convict the defendant). For criticism of these rules and a call for a universal unanimity requirement for criminal verdicts, see Aliza B. Kaplan & Amy Saack, *Overturning Apodaca v. Oregon Should Be Easy: Nonunanimous Jury Verdicts in Criminal Cases Undermine the Credibility of Our Justice System*, 95 OR. L. REV. 1 (2016) (arguing that non-unanimous guilty verdicts dilute the requirement that guilt be proven beyond a reasonable doubt); Kyle R. Satterfield, Comment, *Circumventing Apodaca: An Equal Protection Challenge to Nonunanimous Jury Verdicts in Louisiana*, 90 TUL. L. REV. 693 (2016) (using historical evidence to show that non-unanimous guilty verdicts in Louisiana violate equal protection).

62. See Shari Seidman Diamond et al., *Revisiting the Unanimity Requirement: The Behavior of the Non-Unanimous Civil Jury*, 100 NW. U. L. REV. 201, 203 (2006) ("The unanimity standard . . . has significantly eroded for verdicts in civil cases. Federal juries must be unanimous, but only eighteen states require unanimity and another three accept a non-unanimous verdict after six hours of deliberation."). See also, e.g., CAL. CONST. art. I, § 16 ("[I]n a civil cause three-fourths of the jury may render a verdict"); Ark. R. Civ. P. 48 ("Where as many as nine out of twelve jurors in a civil case agree upon a verdict, the verdict shall be returned as the verdict of such jury").

unanimity authorize civil verdicts to be delivered by panels of six jurors.⁶³ To deliver a verdict, the requisite number of jurors must coalesce around the elements of the alleged crime or civil cause of action.⁶⁴ When consensus cannot be reached and the jurors cannot resolve the deadlock, the judge must pronounce a mistrial, which will often, but not always, be followed by a new trial.⁶⁵ What constitutes an “element of the crime” for purposes of the

63. See COLO. R. CIV. P. 48 (“The jury shall consist of six persons, unless the parties agree to a smaller number, not less than three.”); Developments in the Law, *The Civil Jury*, 110 HARV. L. REV. 1408, 1467 (1997) (“[I]n seeking to streamline civil trials, federal judges have allowed civil juries to shrink from twelve to six members.”). Cf. CAL. CONST. art. I, § 16 (“In civil causes the jury shall consist of 12 persons or a lesser number agreed on by the parties in open court.”); DEL. SUPER. CT. CIV. R. 48 (“The parties may stipulate that the jury shall consist of any number less than 12 or that a verdict or a finding of a stated majority of the jurors shall be taken as the verdict or finding of the jury.”).

64. See *Schad v. Arizona*, 501 U.S. 624, 636–44 (1991) (specifying and applying the “elements” requirements for purposes of jury unanimity); *Richardson v. United States*, 526 U.S. 813, 817–20 (1999) (same).

65. See *Richardson v. United States*, 468 U.S. 317, 323–24 (1984) (“It has been established for 160 years . . . that a failure of the jury to agree on a verdict was an instance of ‘manifest necessity’ which permitted a trial judge to terminate the first trial and retry the defendant, because ‘the ends of public justice would otherwise be defeated.’” (citing *United States v. Perez*, 9 Wheat. 579, 580 (1824))). See also, e.g., *People v. Halvorsen*, 165 P.3d 512, 544 (Cal. 2007) (“Jury deadlock constitutes necessity for declaration of a mistrial and permits retrial of the defendant.”); *People v. Aceval*, 764 N.W.2d 285 (Mich. 2009) (holding that retrial after a mistrial is not barred by double jeopardy if the mistrial was the result of manifest necessity, such as a hung jury).

required agreement among jurors has not been completely resolved doctrinally⁶⁶ and is still a part of an ongoing scholarly debate.⁶⁷

From an epistemological standpoint, this outcome majoritarianism is fundamentally misguided. Outcome majoritarianism often works well as a democratic mechanism for maximizing the fulfillment of individuals' preferences.⁶⁸ Whether a criminal defendant did or did not commit the

66. See, e.g., *State v. Bratthauer*, 354 N.W.2d 774, 776 (Iowa 1984) (jurors must be unanimous on whether the defendant committed the alleged crime, but not as to the mode of the crime's commission); *State v. Nguyen*, 989 A.2d 712, 715 (Me. 2010) ("We have already decided that the Maine Constitution is satisfied by a unanimous finding of guilt even if the jury is not unanimous as to which of the multiple possible means the defendant employed in committing the crime."); *Crispino v. State*, 7 A.3d 1092, 1102 (Md. 2010) ("While the jurors have to be unanimous with regard to each element of an offense, they need not be unanimous with regard to the means used by the defendant in committing the act."); *State v. Abejide*, 879 N.W.2d 684, 692 (Neb. 2016) ("We have stated that where a single offense may be committed in a number of different ways and there is evidence to support each of the ways, the jury need only be unanimous in its conclusion that the defendant violated the law by committing the act." (citing *State v. Galindo*, 774 N.W.2d 190 (Neb. 2009))); *Christopherson v. St. Vincent Hosp.*, 384 P.3d 1098, 1106–07 (N.M. Ct. App. 2016) ("In the criminal arena, where alternative theories of guilt are put forth under a single charge, jury unanimity is required only as to the verdict, not to any particular theory of guilt."); *State v. Boots*, 780 P.2d 725, 728–31 (Or. 1989) (juror unanimity required as to elements); *State v. Sparks*, 83 P.3d 304, 314–17 (Or. 2004) (en banc), *cert. denied*, 543 U.S. 893 (2004) (upholding a unanimous jury verdict that found the defendant guilty of first-degree murder notwithstanding the jurors' possible disagreement about the crime's location because location was a "factual detail" rather than "element" of the crime). Cf. *People v. Russo*, 25 P.3d 641, 645 (Cal. 2001) ("Th[e] requirement of unanimity as to the criminal act is intended to eliminate the danger that the defendant will be convicted even though there is no single offense which all the jurors agree the defendant committed. . . . [It] is designed in part to prevent the jury from amalgamating evidence of multiple offenses, no one of which has been proved beyond a reasonable doubt, in order to conclude beyond a reasonable doubt that a defendant must have done something sufficient to convict on one count." (citations omitted)); *Roelker v. People*, 804 P.2d 1336, 1340 (Colo. 1991) ("If . . . there is a reasonable likelihood that the jurors may disagree on the acts the defendant committed, either the prosecution must elect specific acts or the jury must be given a modified unanimity instruction. The jury must be instructed that in order to convict the defendant, they must either unanimously agree that the defendant committed the same act or acts or that the defendant committed all of the acts described by the victim and included within the time period charged. The election of an act at trial, or the alternative unanimity instruction, is necessary to assure that some jurors do not convict on one offense and others on a separate offense." (internal quotations and citations omitted)); *State v. Bailey*, 551 A.2d 1206, 1212 (Conn. 1988) ("In essence, the unanimity requirement . . . requires the jury to agree on the factual basis of the offense. The rationale underlying the requirement is that a jury cannot be deemed to be unanimous if it applies inconsistent factual conclusions to alternative theories of criminal liability.").

67. See, e.g., Brian M. Morris, *Something upon Which We Can All Agree: Requiring a Unanimous Jury Verdict in Criminal Cases*, 62 MONT. L. REV. 1 (2001) (supporting the "elements" approach to unanimity while advocating for measures that will eliminate jurors' confusion); Peter Westen & Eric Ow, *Reaching Agreement on When Jurors Must Agree*, 10 NEW CRIM. L. REV. 153 (2007) (arguing that jurors can return a guilty verdict only when all of them agree about the specific or alternative means used by the defendant in perpetrating the alleged crime); Brian Bah, Note, *Jury Unanimity and the Problem with Specificity: Trying to Understand what Jurors Must Agree about by Examining the Problem of Prosecuting Child Molesters*, 91 TEX. L. REV. 1203 (2013) (proposing to improve the "elements" approach to jurors' unanimity in child molestation cases).

68. See generally JAMES M. BUCHANAN & GORDON TULLOCK, *THE CALCULUS OF CONSENT: LOGICAL FOUNDATIONS OF CONSTITUTIONAL DEMOCRACY* 99–101 (1962) (identifying conditions

alleged crime, however, is a matter of empirical truth rather than preferences or democracy. The fact that many people form a preference that a particular individual be identified and punished as a criminal does not make that individual deserving of conviction and punishment. By the same token, albeit less intuitively, the mere fact that twelve jurors come to believe that the defendant committed the alleged crime does not make that belief epistemically justified or even consequential.⁶⁹ Such collective beliefs are epistemically consequential (and potentially justified as well) only when they rely on reasons grounded in the evidence that the jurors heard. This evidence, in turn, must identify the defendant as a perpetrator of the crime beyond any reasonable doubt.⁷⁰

From an epistemological standpoint, this standard of proof requires that the requisite number of jurors (twelve out of twelve in a regular criminal case) coalesce not only around elements of the crime, but also around the reasons identifying the factual presence of these elements. When jurors do not coalesce around these evidence-based reasons while still agreeing about elements of the crime, they do not just agree, but also disagree, and their disagreement makes their conclusion that the defendant committed the crime epistemically unsound.

Take two groups of jurors, *A* and *B*, who come to the conclusion that the defendant committed a certain crime. Group *A* comes to that conclusion for a different reason than Group *B* while rejecting Group *B*'s reason. Group *B*, for its part, rejects the reason adopted by Group *A*. Under such circumstances, Group *A*'s disagreement with Group *B*'s reason constitutes second-order evidence that reduces the reliability of that reason. By the same token, Group *A*'s reason becomes less reliable too because of Group *B*'s disagreement with that reason. Under such circumstances, finding the

under which majority-vote decisions benefit the group as a whole).

69. Arguments taking this direction allude to the Condorcet Jury Theorem which associates the number of convergent beliefs with the beliefs' probability of being true. See, e.g., Saul Levmore, *Conjunction and Aggregation*, 99 MICH. L. REV. 723, 734–36 (2001). This theorem, however, only works when each individual juror votes independently and is more likely than not to find the truth. Under these assumptions, the addition of each juror to the panel increases the probability that the jurors' collective decision (delivered unanimously or by a majority vote) will correspond to the true facts. *Id.* at 734–35. See also Paul H. Edelman, *On Legal Interpretations of the Condorcet Jury Theorem*, 31 J. LEGAL STUD. 327, 328 (2002). From an epistemological standpoint, postulating that each juror has a greater than fifty percent chance of finding the truth amounts to bootstrapping. This postulation proceeds from the premise that each juror has a greater than fifty percent chance of correctly processing the evidence, which presupposes the prevalence of justified true beliefs among jurors. Convenient as it may be for designing a predictive model of collective decision-making, this presupposition takes for granted the very thing that epistemology subjects to scrutiny.

70. See *In re Winship*, 397 U.S. 358, 368 (1970) (holding that constitutional due process requires that criminal defendants' guilt be proven beyond a reasonable doubt).

defendant guilty may well satisfy the preferences of both groups, but criminal trials are not about satisfying jurors' preferences. Their goal is to get as close as possible to the true facts in order to convict the guilty and acquit the innocent. Assuming, as we should, that the jury unanimity requirement aims at enhancing the factual accuracy of guilty verdicts, jurors' coalescence around the conclusion that the defendant committed the alleged crime will only provide the needed enhancement when all of them also agree about the reasons supporting that conclusion. Absent such comprehensive agreement, the defendant's guilt will not be established beyond a reasonable doubt.

This insight has important implications for both theory and doctrine, and I now turn to analyze these implications.

A. Theory

From an epistemological standpoint, the jury mechanism aims at enhancing the accuracy of verdicts, criminal and civil. Those verdicts are defeasible. They always reflect the probability, rather than certainty, of the facts underlying the relevant rights, duties, and liabilities. The requisite probability for criminal convictions is "beyond a reasonable doubt"⁷¹ and for civil liability, "preponderance"⁷² or "clear and convincing evidence."⁷³ Factfinders evaluate evidence against these probability thresholds by using their experience and intuitions.⁷⁴

This framework brings into play second-order evidence that indicates how dependable the factfinders' decision is. This second-order evidence ought to include agreements and disagreements among jurors, who function as epistemic peers. A juror's agreement with another juror's factual finding makes that finding more dependable and, consequently, safer to rely upon than before. Conversely, when one juror disagrees with another's finding, the finding's dependability is diminished. Any legal system that uses this mechanism must decide how many jurors should sit on a panel in civil and criminal trials, how to select those jurors to fend off bias and secure impartiality, and how many jurors need to agree that the evidence upon

71. STEIN, *supra* note 39, at 199 n.98 (explaining the "beyond a reasonable doubt" requirement for convictions).

72. *Id.* at 219–20 (explaining the "preponderance" standard for findings in civil cases).

73. See CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, EVIDENCE § 3.3, at 112 (5th ed. 2012) (explaining the "clear and convincing" proof standard that controls proceedings that might deny a person certain civil rights).

74. See *supra* note 41 and sources cited therein.

which they base their decision about criminal or civil liability meets the predetermined probability threshold.

Critically, the legal system must also determine how to account for jurors' disagreements in matters of fact. Consider policymakers who estimate that guilty verdicts are only safe when supported by a unanimous decision of twelve jurors. Consistent with this estimation, the policymakers cannot allow jurors to return a guilty verdict while disagreeing about the supporting reasons. The policymakers must therefore put in place an additional rule that will clarify the unanimity requirement for convictions. This rule should require that all jurors agree about the reasons for determining that the defendant committed the alleged crime.

Under this rule, jurors will be authorized to base guilty verdicts on any admissible evidence and factual narrative that they deem proven beyond a reasonable doubt. Prior to delivering a guilty verdict, however, jurors would have to state not only their agreements, but also their disagreements about evidence and facts. Importantly, jurors would also be authorized to make disjunctive factual findings. For example, they would be able to return a guilty verdict after finding that one of several witnesses who testified against the defendant was telling the truth. There would be no need for them to single out that witness, so long as their disjunctive finding is unanimous and they have no reasonable doubts about it. Moreover, jurors would also be authorized to convict a criminal defendant if they find him guilty beyond a reasonable doubt under every factually possible scenario. There would be no need for them to identify one specific scenario that actually occurred in the case at bar, so long as they reach a unanimous verdict for every alternative scenario.

The Supreme Court's old decision, *Andersen v. United States*,⁷⁵ illustrates the principles I just explained. This decision focused on an indictment alleging that the defendant, a seaman, shot and wounded another seaman and had him thrown into the ocean. The prosecution also alleged that the victim died from his wound or, alternatively, drowned and died in the ocean. Based on these facts and after reviewing the evidence presented at the trial, the Supreme Court decided that the jury could properly find the defendant guilty of murder. Specifically, the Court ruled that the jury could base its guilty verdict upon two alternative scenarios in which the victim dies either from the shotgun wound or from being drowned.⁷⁶ Under either scenario, the Court explained, the defendant was as guilty of murdering the victim, and, for that reason, it was not necessary for the jury to determine

75. *Andersen v. United States*, 170 U.S. 481 (1898).

76. *Id.* at 500–01.

which scenario actually transpired in reality.⁷⁷ All that the prosecution had to do was to convince every juror on the panel that the two scenarios were possible and jointly exhaustive.⁷⁸

Assume now that one of the jurors in the *Andersen* case comes to believe that the victim could not have died from his wound. The juror bases this belief on the testimony of an eyewitness who described the victim's wound as superficial. Another eyewitness testified that the victim's wound was fatal, but the juror did not believe that witness. Consistent with these assessments of the witnesses' credibility and after considering all other evidence, the juror concludes that the victim was thrown into the ocean on the defendant's command and died. This conclusion precludes unanimity among the jurors. The jurors now cannot unanimously decide that the prosecution proved beyond reasonable doubt that the defendant murdered the victim. The scenario in which the victim dies from the gunshot wound is faced by a dissenter and consequently remains unproven. Ostensibly, the jurors are now unanimously endorsing the drowning scenario. This, however, is not the case because eleven jurors out of twelve have indicated that they are uncertain about this scenario (by affirming that the "death from the gunshot wound" scenario was possible, too). This indication must be counted as second-order evidence against the drowning scenario. The twelve jurors could unanimously recognize this scenario as an alternative to the series of events in which the victim dies from the gunshot wound. As a standalone possibility, however, the drowning scenario was epistemically unsafe. This scenario could only be safe to base the guilty verdict upon if all jurors, rather than just one, were to make an affirmative finding that the victim died from drowning in the ocean and not from the gunshot wound. If the jurors cannot make this finding unanimously, they should find the defendant guilty of attempted murder, as opposed to murder.

B. Doctrine

Extant law regulates jurors' disagreements by setting up two rules. One of those rules can be called "bottom line" and is also widely known as the *Schad-Richardson* doctrine.⁷⁹ Another rule is known as a "hung jury" or a

77. *Id.* at 500 ("[T]he indictment charged the transaction as continuous . . . two lethal means were employed cooperatively by the accused to accomplish his murderous intent, and whether the vital spark had fled before the riddled body struck the water, or lingered until extinguished by the waves, was immaterial.").

78. *See id.* at 501 ("The mate was shot, and his body immediately thrown overboard, and there was no doubt that, if not then dead, the sea completed what the pistol had begun.").

79. *See infra* Section II.B.1.

mistrial rule.⁸⁰ Under the bottom-line rule, jurors can deliver a guilty verdict in a criminal case simply by agreeing that the defendant committed the alleged crime.⁸¹ In all jurisdictions except Louisiana and Oregon, this agreement must be unanimous.⁸² In Louisiana and Oregon, the agreement must be reached by ten or more jurors out of twelve.⁸³ Critically, jurors do not need to coalesce around the reasons for reaching agreement. All they need to agree about is that the elements of the alleged crime are present in the defendant's conduct and its consequences.⁸⁴ Each individual juror is free to disagree with her peers about the reasons for that conclusion. She may believe a witness that her peers find untrustworthy and disbelieve a witness that her peers consider credible. Every individual juror may also base her bottom-line decision on a factual narrative that differs from the facts that her peers on the jury panel believe to be true. Similar rules apply to decisions made by a civil jury as well.⁸⁵

Under the hung jury rule, when jurors are deadlocked in the sense that they fail to reach unanimity or the requisite majority in deciding the case, the judge must declare a mistrial.⁸⁶ Following that declaration, the prosecutor in a criminal case or the plaintiff in a civil case usually will be given an opportunity to re-litigate the case.⁸⁷ The prosecutor (or the civil plaintiff) will then have to make a decision about the desirability of starting over and litigating the case from square one. Oftentimes, but of course not always, she will decide to drop the case.

Each of these rules violates epistemological justification principles. In what follows, I identify these violations and explain their consequences. Before doing so, I must acknowledge that the legal system has goals and concerns that lie outside the domain of epistemology. For that reason, a legal rule cannot be automatically condemned as irrational just because it runs afoul of an epistemological principle. Yet, failure to comply with epistemological principles widens the gap between the resulting decisions and the truth. The gap is the price that a legal system pays for any such failure. Sometimes, this price is worth paying. For example, epistemological principles are often too costly to implement. Under such circumstances, the legal system will do well to economize on the factual accuracy of court

80. *See infra* Section II.B.2.

81. *See supra* note 66 and sources cited therein.

82. *See supra* note 61 and sources cited therein.

83. *See supra* note 61 and sources cited therein.

84. *See supra* note 66 and sources cited therein.

85. *See supra* note 66 and sources cited therein.

86. *See supra* note 65 and sources cited therein.

87. *See supra* note 65 and sources cited therein.

decisions. Epistemological principles may also lead to factual revelations that are harmful to individuals or society at large. When such harm is excessive, the legal system will do well to avoid it. In the proceeding paragraphs, however, I demonstrate that applying epistemological principles to jurors' disagreements is neither costly nor otherwise harmful. Suppressing these principles will consequently distort the factfinding process while producing no offsetting benefits.

1. The "Bottom Line" Rule

In the landmark decision *Schad v. Arizona*,⁸⁸ the United States Supreme Court upheld the defendant's first-degree murder conviction under an Arizona statute that defined first-degree murder as "willful, deliberate [or] premeditated . . . or which is committed . . . in the perpetration of, or attempt to perpetrate, . . . robbery."⁸⁹ The defendant was found driving an expensive new vehicle that belonged to the victim, who was found dead from strangulation at a distant location. Initially, the defendant claimed that he drove the vehicle with the victim's permission, but subsequently changed this story by admitting that he stole the vehicle while insisting that "he was a thief, not a murderer."⁹⁰ The prosecution, for its part, argued for either of the following two scenarios: (1) the defendant killed the victim in cold blood; or (2) the defendant killed the victim without premeditation while robbing him of his car and other belongings.⁹¹ The trial judge instructed the jury that each of those scenarios (if proven beyond a reasonable doubt) makes the defendant guilty of first-degree murder and that "[a]ll 12 of you must agree on a verdict."⁹² This instruction subsequently received affirmation from the Arizona Supreme Court in a decision explaining that:

In Arizona, first degree murder is only one crime regardless whether it occurs as a premeditated murder or a felony murder. Although a defendant is entitled to a unanimous jury verdict on whether the criminal act charged has been committed, the defendant is not entitled to a unanimous verdict on the precise manner in which the act was committed.⁹³

88. 501 U.S. 624 (1991).

89. See Ariz. Rev. Stat. Ann. § 13-452 (1973), *superseded by* Ariz. Rev. Stat. Ann. § 13-1105 (2009).

90. *Schad*, 501 U.S. at 628–29.

91. *Id.* at 629.

92. *Id.* at 624.

93. *State v. Schad*, 788 P.2d 1162, 1168 (Ariz. 1989) (citations omitted) (quoting *State v.*

The United States Supreme Court ruled that this decision and Mr. Schad's trial involved no violations of constitutional due process or the right to a jury trial.⁹⁴ This ruling was based on the Court's analysis of the elements of the crime.⁹⁵ The Court reasoned that states can properly define first-degree murder in terms of two alternatives—premeditated killing or felony murder—and then invite jurors to choose either of those alternatives as a sufficient ground for convicting the accused.⁹⁶ Under this statutory framework, it explained, the two alternative elements are nothing but alternative means of committing first-degree murder.⁹⁷ According to the Court, guilty verdicts ought to be based on the jurors' unanimity as to whether the defendant committed the alleged crime, not on how he did it.⁹⁸ Allowing each individual juror to base her or his decision to convict the defendant on any alternative element of the alleged crime consequently "[does] not fall beyond the constitutional bounds of fundamental fairness and rationality."⁹⁹

From an epistemological standpoint, this decision is profoundly misguided. Definitions of criminal offenses are not self-executing. To apply them properly, jurors must ascertain the empirical facts that reveal what the defendant actually did. These facts are a property of the real world. They do not depend on the words of criminal statutes and how those statutes formulate elements of the crime. Moving from one definition of first-degree murder to another consequently cannot change those facts and the facts' probabilities. When jurors' unanimity is necessary for establishing the facts incriminating the defendant, finding out what the jurors agree and disagree about is critical. Facts about which jurors disagree are not proven beyond a reasonable doubt.

Assume that six jurors out of twelve decided that Mr. Schad killed the victim with premeditation and the remaining six jurors determined that he killed the victim without premeditation while robbing him of his car and other belongings. According to the Supreme Court, this combination of the jurors' findings warrants the defendant's conviction of first-degree murder.¹⁰⁰ Allowing jurors to make such decisions, however, is

Encinas, 647 P.2d 624, 627 (Ariz. 1982)), *aff'd sub nom.* Schad v. Arizona, 501 U.S. 624 (1991)).

94. *Schad*, 501 U.S. at 645.

95. *Id.* at 631–32.

96. *Id.* at 632–37.

97. *Id.* at 636.

98. *Id.*

99. *Id.* at 645.

100. *Id.* at 632 ("We see no reason . . . why the rule that the jury need not agree as to mere means of satisfying the *actus reus* element of an offense should not apply equally to alternative means of satisfying the element of *mens rea*.").

epistemically wrong because jurors here do not simply agree about the defendant's guilt. They agree about the defendant's guilt as a bottom line while disagreeing about the reasons for determining that the defendant committed the alleged crime.¹⁰¹ Six jurors out of twelve disagree with their peers' estimation that the defendant committed felony murder. The other six jurors refuse to join the decision that the prosecution proved its premeditated murder accusation beyond a reasonable doubt. This disagreement reduces the reliability of both decisions and creates a reasonable doubt about the defendant's guilt. Ignoring this second-order evidence will not make those decisions more reliable than they are. Justice White, who dissented from the Court's decision together with three other justices, was therefore right when he wrote:

[A] verdict that simply pronounces a defendant "guilty of first-degree murder" provides no clues as to whether the jury agrees that the three elements of premeditated murder or the two elements of felony murder have been proved beyond a reasonable doubt. Instead, it is entirely possible that half of the jury believed the defendant was guilty of premeditated murder and not guilty of felony murder/robbery, while half believed exactly the reverse. To put the matter another way, the plurality affirms this conviction without knowing that even a single element of either of the ways for proving first-degree murder, except the fact of a killing, has been found by a majority of the jury, let alone found unanimously by the jury as required by Arizona law.¹⁰²

From an epistemological perspective, the key issue that arises in the *Schad* type of case is not how to aggregate the jurors' divergent opinions into a single verdict.¹⁰³ Rather, the issue here is what jurors are disagreeing about

101. Cf. Westen & Ow, *supra* note 67, at 187–92. Professor Westen and Eric Ow argue that jurors should be permitted to achieve aggregated unanimity. According to them, a guilty verdict is unanimous when each individual juror "believes beyond a reasonable doubt that if the defendant did not commit the offense by one of the alleged means, the defendant must have committed it by another alleged means." *Id.* at 191. For this approach to work, however, jurors must reach an additional unanimous decision: all of them must agree that the specific means by which the defendant committed the offense is of no consequence. This decision would confirm that jurors do not disagree about any material fact. When a single juror estimates that the defendant committed the offense by one of the alleged means, but not by another, the jury will fail to reach unanimity. *See also infra* note 103.

102. *Schad*, 501 U.S. at 655 (White, J., dissenting).

103. Cf. Michael S. Pardo, *Group Agency and Legal Proof: Or, Why the Jury Is an "It"*, 56 WM. & MARY L. REV. 1793, 1847–49 (2015). Based on collective epistemology, *id.* at 1821–24, Professor Pardo criticizes Justice White for failing to recognize the disjunctive proof beyond a reasonable doubt. *Id.* at 1847. Specifically, he claims that the "beyond a reasonable doubt" standard is satisfied when all jurors coalesce around the following proposition: The defendant's killing of the victim was

and whether this disagreement creates a reasonable doubt about the defendant's guilt. For that reason, there is only one way for a jury to deliver a disjunctive guilty verdict with regard to a crime that has alternative elements: all jurors have to agree under the "beyond a reasonable doubt" standard that the defendant committed the crime in either of the two (or more) alternative ways, and they also must be unanimous in their reasons for reaching that conclusion.

The Supreme Court has made the same epistemological mistake in *Richardson v. United States*.¹⁰⁴ This time around, the Court's mistake benefited the defendant at the prosecution's expense. The defendant was found guilty of running "a continuing criminal enterprise" in violation of federal criminal law.¹⁰⁵ To establish that the defendant was guilty of that offense, the prosecution had to prove that he violated federal drug laws while acting in concert with five or more people managed or organized by him, where "such violation [was] a part of a continuing series of violations."¹⁰⁶ The trial court proceeded from the premise that the threshold number that makes drug kingpin activities "a series" was three.¹⁰⁷ Based on that premise and consistent with the *Schad* precedent, the court instructed jurors that they "do not . . . have to agree as to the particular three or more federal narcotics offenses committed by the defendant."¹⁰⁸ This instruction was upheld by the Seventh Circuit,¹⁰⁹ but the Supreme Court decided that it was wrong and that "unanimity in respect to each individual violation [was] necessary."¹¹⁰

The Court based its decision on the structural difference between the federal "continuing criminal enterprise" offense and crimes such as Arizona's first-degree murder.¹¹¹ According to the Court, premeditated killing and felony murder are merely the means by which a person can

premeditated; and if not, then the defendant killed the victim while committing robbery. *Id.* at 1848. Moreover, he also argues that "if half the jury concluded that the disjunctive explanation was plausible and the other half concluded felony murder (but not intentional murder) was plausible, then the jurors agree on first degree murder." *Id.* This argument abandons the critical requirement that jurors agree on the *reasons* for their collective verdict. Disjunctive verdicts that hide a possible disagreement among the jurors are not really unanimous. Nor do they satisfy the "beyond a reasonable doubt" standard, given the potential or actual presence of second-order evidence—the jurors' disagreement—that reduces the disjunctive findings' reliability.

104. 526 U.S. 813 (1999).

105. *Id.* at 815–16; 21 U. S. C. § 848(a) (2012).

106. *Richardson*, 526 U.S. at 816; 21 U. S. C. § 848(c) (2012).

107. *Richardson*, 526 U.S. at 816.

108. *Id.*

109. *United States v. Richardson*, 130 F. 3d 765, 779 (7th Cir. 1997), *vacated*, 526 U.S. 813 (1999), *remanded to* 195 F.3d 316 (7th Cir. 1999).

110. *Richardson*, 526 U.S. at 816.

111. *Id.* at 817.

commit first-degree murder under Arizona statute.¹¹² Such means or “brute facts” that make up an element of the crime do not require unanimity among jurors.¹¹³ The unanimity requirement only applies to elements of the crime.¹¹⁴ For example, jurors can split over whether the defendant committed robbery by threatening his victim with a gun, as opposed to knife, or vice versa.¹¹⁵ In the Court’s view, “a disagreement about means—would not matter as long as all 12 jurors unanimously concluded that the Government had proved the necessary related element, namely, that the defendant had threatened force.”¹¹⁶ With elements of the crime, the Court explained, things are different because jurors are required to reach unanimity about elements as the verdict’s bottom line.¹¹⁷

With these general observations in mind, the Court went on to determine that each drug violation is an element of the requisite series of violations about which all jurors have to agree in order to return a guilty verdict.¹¹⁸ The Court reasoned that the words “violates” and “violations” “have a legal ring,”¹¹⁹ that there is a need to mitigate the breadth of the “continuing criminal enterprise” statute along with the resulting risk of unfairness to the accused,¹²⁰ and that “permitting a jury to avoid discussion of the specific factual details of each violation[] will cover up wide disagreement among the jurors about just what the defendant did, or did not, do.”¹²¹

This reasoning is unpersuasive. The concepts of “premeditation” and “felony murder,” which the Court categorized as merely means or brute facts in the context of the *Schad* decision,¹²² have a legal ring to them. Felony murder is also widely considered an overbroad offense calling for interpretive adjustments that will protect defendants against unfairness.¹²³ Finally, and perhaps most importantly, covering up any disagreement among jurors about their individual reasons for returning a guilty verdict is a serious epistemological error. There is no difference between jurors’ disagreements about elements of the crime and their divergent opinions

112. *Id.*

113. *Id.*

114. *Id.* at 817–18.

115. *Id.* at 817.

116. *Id.* (Blackmun, J., concurring) (citing *McKoy v. North Carolina*, 494 U.S. 433, 449 (1990)).

117. *Id.* at 818.

118. *Id.* at 818–19.

119. *Id.* at 818.

120. *Id.* at 819–20.

121. *Id.* at 819.

122. *Schad*, 501 U.S. at 636.

123. See generally Guyora Binder, *The Origins of American Felony Murder Rules*, 57 STAN. L. REV. 59 (2004) (carrying out historical and doctrinal analysis of felony murder and arguing that American courts tend to interpret this crime narrowly).

about “garden variety” facts and evidence. The reason is simple: any fact and piece of evidence goes into the jurors’ decision about elements of the crime. When it cannot go into that decision, it must be irrelevant¹²⁴ and consequently inadmissible,¹²⁵ and so jurors can never form a genuine disagreement about it. Hence, when jurors genuinely disagree about relevant and hence consequential facts—no matter what they are—this disagreement makes the jurors non-unanimous and should therefore preclude them from returning a guilty verdict. From an epistemological viewpoint, any such disagreement reduces the reliability of factual findings against the defendant.

The Court’s decision denied the government an opportunity to establish that the defendant orchestrated three or more unspecified drug operations. When twelve jurors unanimously agree that this accusation is proven beyond a reasonable doubt, they should find the defendant guilty as charged. Importantly, however, if one juror out of twelve decides that the defendant orchestrated three specific drug operations, while playing no part in other drug activities that the prosecution attributes to his gang, this decision would create a disagreement among the jurors and make them non-unanimous.

2. The “Hung Jury” Rule

Consider now the hung jury rule under which the judge must declare a mistrial when jurors fail to unanimously agree about the verdict (or form the majority needed to deliver a verdict, when they are allowed to do so).¹²⁶ From an epistemological point of view, this rule is inadequate as well. Take a genuine disagreement among twelve jurors who decide a criminal case under the unanimity rule. Eleven jurors come to the conclusion that the defendant committed the alleged crime. One juror disagrees with that conclusion because she believes the defendant’s alibi witness. The dissent should count as second-order evidence that reduces the reliability of the majority’s decision and creates a reasonable doubt about the defendant’s guilt. Under any such circumstances, if the jurors’ collective decision were to be determined by epistemic criteria, there would be no deadlock and no mistrial. Rather, the jurors would have to return a “not guilty” verdict.¹²⁷

124. See, e.g., FED. R. EVID. 401 (defining relevancy).

125. See, e.g., FED. R. EVID. 402 (providing that irrelevant evidence is not admissible).

126. See *supra* note 65 and sources cited therein.

127. In practice, this problem is mitigated by the “leniency asymmetry effect” identified by Robert J. MacCoun & Norbert L. Kerr, *Asymmetric Influence in Mock Jury Deliberation: Jurors’ Bias for Leniency*, 54 J. PERS. SOC. PSYCHOL. 21 (1988) (showing that pro-acquittal coalitions of jurors tend to dominate pro-conviction factions). See also Norbert L. Kerr & Robert J. MacCoun, *Is The Leniency Asymmetry Really Dead? Misinterpreting Asymmetry Effects in Criminal Jury Deliberation*, 15 GROUP

Under our legal system, however, whether the jury is deadlocked or not is determined by outcome majoritarianism rather than epistemology. Outcome majoritarianism is a technical rule. Under this rule, when jurors coalesce around their final decision unanimously or with a requisite majority, they are not deadlocked, and when they fail to reach the required consensus for whatever reason, they are deadlocked.¹²⁸ Gainsayers receive no epistemic credit that could go into the jurors' collective decision and resolve the deadlock one way or another. Instead of giving them that credit, the law treats them as mere obstructionists.

Gainsayers sometimes deserve no epistemic credit. They may act as obstructionists by dissenting from the majority's decision for reasons unrelated to evidence and facts.¹²⁹ When they do so in a criminal case, the judge has no choice other than to declare a mistrial and the government should be entitled to put the defendant on trial again for the same crime. But a juror also may dissent from the majority's decision for reasons that are epistemic rather than strategic. When that happens, the juror's dissent should be accounted for in the final verdict. Under the unanimity rule, the jury would then have no choice but to acquit the accused, whereas under Louisiana's and Oregon's supermajority rule it would still return a guilty verdict. Mistrials triggered by jurors' epistemic dissent are therefore unjustified. When followed by a new trial, they erode the defendant's constitutional protection against double jeopardy.¹³⁰ To prevent this erosion, the law should require trial judges to investigate the reasons behind the juror's decision-blocking dissent. The judge should declare a mistrial only when she estimates that those reasons are most likely to be strategic rather than epistemic. When the judge finds out that those reasons are epistemic, she should step in and issue a "not guilty" verdict.

PROCESS. INTERGR. RELA. 585 (2012) (updating studies identifying the "leniency asymmetry effect" and arguing that without leniency asymmetry the "beyond a reasonable doubt" standard will be eroded).

128. See *supra* notes 65, 66 and sources cited therein.

129. For example, jurors may intentionally flout the law which they find objectionable—a phenomenon known as "jury nullification." See generally Jonathan Bressler, *Reconstruction and the Transformation of Jury Nullification*, 78 U. CHI. L. REV. 1133 (2011) (examining the constitutionality of prohibiting jury nullification); Lars Noah, *Civil Jury Nullification*, 86 IOWA L. REV. 1601 (2001) (analyzing jury nullification in civil trials).

130. See U.S. CONST. amend. V ("[N]or shall any person be subject for the same offense to be twice put in jeopardy of life or limb.").

III. DISAGREEMENTS IN THE COURTS OF APPEALS

A. Theory

Appellate review carried out by state and federal courts is aimed at reducing the total social cost of mistaken trial court decisions while economizing on the costs of appeals.¹³¹ Courts of appeals promote these twin goals by correcting only those decisions of trial courts that are clearly erroneous.¹³² In tune with that policy, they confine their investigations to the trial record and search only for errors that are big and consequential, while paying no attention to more minor oversights of the trial judge.¹³³ Errors that courts of appeals investigate include misapplication of the law and abuse of discretion in the trial management, admission of evidence, and jury instructions.¹³⁴ After finding any such error, a court will evaluate its effect on the final verdict and determine whether the error was material or not.¹³⁵ If the error was material, the court of appeals will modify the verdict or quash it and remand the case to the court below (with or without instructions).¹³⁶ If the error is immaterial to the outcome and hence harmless, the court will dismiss the appeal.¹³⁷

As a consequence, courts of appeals often find themselves in a position not to investigate an error allegation when they estimate that the alleged error was harmless anyway. Conversely, by focusing only upon serious mistakes, courts of appeals often put themselves in a position not to investigate the error's effect on the final verdict. Instead of carrying out such costly investigations, they simply assume that the error was harmful and quash the verdict.¹³⁸ This decision-making strategy has two advantages: it reduces the cost of appellate procedures and minimizes the incidence of error in appellate courts' rulings.

Appellate courts make all these decisions by employing panels of three or more judges. These panels follow the simple majority rule. For example, when two appellate judges out of three decide to dismiss the appeal and the

131. For an economic analysis of appeals, see Steven Shavell, *On the Design of the Appeals Process: The Optimal Use of Discretionary Review Versus Direct Appeal*, 39 J. LEGAL STUD. 63, 68–75 (2010).

132. See, e.g., *Appeals*, 32 ANN. REV. CRIM. PROC., 763, 788–94 (2003).

133. *Id.*

134. *Id.*

135. *Id.* at 794–98.

136. *Id.*

137. *Id.*

138. See *United States v. Cronin*, 466 U.S. 648, 658 (1984) (recognizing “structural” errors as harmful per se).

remaining judge votes to allow it, the appeal will be dismissed. Conversely, when only one judge out of three believes that the appeal should be dismissed, but two other judges decide to grant the appellate relief, the relief will be granted. Relevant for purposes of the present discussion, the majority rule does not discriminate between judges' holdings on matters of law and factual determinations. For example, when two appellate judges out of three come to believe that the trial court's error had no distortionary effect on the final verdict as a matter of fact, this belief will doom the appeal. The dissenting judge's estimation that the error is harmful will be of no consequence.

From an epistemological standpoint, this rule is far from obvious because it suppresses epistemically valuable information. The dissenting judge's opinion that the error was, in fact, harmful constitutes second-order evidence that has epistemic value. This evidence indicates that the majority's decision is not as reliable as it purports to be. Whether this evidence should affect the appeal's disposition is a wholly separate question that depends on the social cost of not correcting the verdict appealed against, should it turn out to be erroneous, and on the cost of vacating the verdict if it should stand. Critically, those costs are not static: they vary from one category of cases to another. For example, the cost of erroneously affirming a verdict obligating the defendant to pay the plaintiff \$100,000 for a breach of contract is roughly the same as the cost of erroneously vacating such a verdict.¹³⁹ Dismissing a rightful appeal against criminal conviction followed by a long prison sentence, however, is not the same as mistakenly granting a meritless appeal. The social cost of denying post-conviction remedy to a deserving appellant in a criminal case would virtually always be greater than the cost incurred by vacating a criminal verdict that should stand.¹⁴⁰

Our appellate system therefore ought to adjust the majority rule in a way that accounts for the differences between risks of error in appellate courts' decisions. The system, however, universally fails to do this. By giving no epistemic credit to disagreements among appellate judges, it treats all appellate errors as the same. Appellate errors, however, are not always equal: some of them are costlier than others. Application of the majority rule is consequently bound to impose unnecessary social costs.

139. See, e.g., *Grogan v. Garner*, 498 U.S. 279, 286–87 (1991) (recognizing equal allocation of the risk of error between plaintiffs and defendants as a baseline principle of civil procedure).

140. See, e.g., *Furman v. Georgia*, 408 U.S. 238, 367 n.158 (1972) (quoting Justice Douglas's observation that "[w]e believe that it is better for ten guilty people to be set free than for one innocent man to be unjustly imprisoned."); *In re Winship*, 397 U.S. 358, 364 (1970) ("It is . . . important in our free society that every individual . . . have confidence that his government cannot adjudge him guilty of a criminal offense without convincing a proper factfinder of his guilt with utmost certainty.").

B. Doctrine

The Eleventh Circuit has recently delivered an important decision about the implications of a violation of a criminal defendant's right to be represented by an attorney.¹⁴¹ This decision was preceded by an en banc hearing of the defendant's appeal.¹⁴² The defendant petitioned to overturn the jury verdict that found him guilty of five sex-related crimes involving minors.¹⁴³ This verdict was based, *inter alia*, on the testimony of a government witness who told the jury that the defendant possessed child pornography.¹⁴⁴ The witness testified before and after lunchtime on the same day.¹⁴⁵ The defendant's attorney returned late from the lunch break to discover that the trial judge allowed the witness to testify in his absence for seven minutes.¹⁴⁶ During these seven minutes, the witness gave answers to eighteen questions of the prosecuting attorney.¹⁴⁷ These answers gave the jury information incriminating the defendant, but they accounted for less than one percent of the total testimony.¹⁴⁸ Moreover, "the little testimony that counsel had missed was repeated in even more detail by the same witness after counsel returned to the courtroom."¹⁴⁹

The trial judge's decision to carry on with the trial in the defense attorney's absence was unquestionably a violation of the defendant's right to counsel.¹⁵⁰ And because that right is guaranteed by the Sixth Amendment,¹⁵¹ the guilty verdict that the jury returned at the end of the trial was presumptively unconstitutional and invalid.¹⁵² To salvage this verdict, the government had to convince the court of appeals that the constitutional violation was "harmless beyond a reasonable doubt," as well as not "structural."¹⁵³ The Supreme Court's precedent categorizes constitutional violation (or error) as "structural" when it "undermines the basic guarantee of fairness, resulting in a strong potential for prejudice and immeasurable

141. *United States v. Roy*, 855 F.3d 1133 (11th Cir. 2017).

142. *Id.*

143. *Id.* at 1135.

144. *Id.* at 1137.

145. *Id.*

146. *Id.*

147. *Id.*

148. *Id.* at 1135 (noting that the trial lasted for 31.4 hours and included approximately 2,745 answers to different questions).

149. *Id.*

150. *Id.*

151. U.S. CONST. amend. VI ("In all criminal prosecutions, the accused shall enjoy the right . . . to have the assistance of counsel for his defense.").

152. *See Chapman v. California*, 386 U.S. 18, 21–24 (1967) (formulating constitutional error doctrine).

153. *Roy*, 855 F.3d at 1142.

effects.”¹⁵⁴ Such per se violations include erroneous denial of counsel at a “critical stage” of the trial.¹⁵⁵ On the other hand, when the violation’s effect is readily assessable, the court must carry out the harmless-error analysis to determine under the beyond a reasonable doubt standard whether the guilty verdict should stand.¹⁵⁶

Five appellate judges out of eight decided that the government made the requisite showing,¹⁵⁷ while the remaining three judges opined that it did not.¹⁵⁸ According to the majority, the eighteen questions and answers that the defendant’s attorney missed had no independent evidentiary significance.¹⁵⁹ Rather, they were part of the same account that the witness gave to the jury and reiterated in the presence of the defendant’s attorney.¹⁶⁰ Moreover, these questions and answers pointed to facts that the government independently proved by adducing overwhelming inculpatory evidence in the attorney’s presence.¹⁶¹ These questions and answers consequently did not belong to a “critical stage of the trial”¹⁶²—a categorization that would have mandated the reversal of the guilty verdict.¹⁶³ Furthermore, the trial judge’s erroneous decision to allow those questions and answers was harmless beyond a reasonable doubt.¹⁶⁴

The majority acknowledged that this decision was nothing but an exercise of their best judgment.¹⁶⁵ Specifically, Chief Judge Carnes wrote:

It would be nice if there were a software program into which a trial record could be scanned, an error could be input into the program, and the result would pop up on screen as: “prejudicial” or “harmless.” That is not, however, the nature of the enterprise. Prejudice inquiries require the exercise of a court’s best judgment. All prejudice or harmless determinations require some measure of estimation or of what the Supreme Court in *Sears* described as permissible “speculation.” Every work day all across the country courts decide

154. *Id.* at 1229 (Wilson, J., dissenting). *See also* United States v. Gonzalez-Lopez, 548 U.S. 140, 150 (2006) (explaining that structural errors are “necessarily unquantifiable and indeterminate”); Sullivan v. Louisiana, 508 U.S. 275, 281–82 (1993) (same).

155. *Roy*, 855 F.3d at 1229.

156. *Id.* at 1232.

157. They included Chief Judge Carnes and Judges Tjoflat, William Pryor, Jordan, and Rosenbaum. *Roy*, 855 F.3d at 1135, 1189, 1206, 1208, 1209.

158. These judges included Wilson, Martin, and Jill Pryor. *Id.*, at 1229, 1249, 1251.

159. *Id.* at 1147.

160. *Id.* at 1181–82.

161. *Id.* at 1135–37.

162. *Id.* at 1144–45.

163. *See* United States v. Cronin, 466 U.S. 648, 659, n.25 (1984).

164. *Roy*, 855 F.3d at 1151, 1157–58.

165. *Id.* at 1166–67.

cases by determining, to the best of their abilities, whether something that defense counsel did, or did not do, prejudiced or harmed the defendant by adversely affecting the result of the trial.¹⁶⁶

Two judges disagreed with the majority's factual determinations.¹⁶⁷ They estimated that the consequences of the trial judge's mistake were "immeasurable and likely extremely prejudicial."¹⁶⁸ They found that those consequences "[defied] assessment absent impermissible speculation"¹⁶⁹ because they were "necessarily unquantifiable and indeterminate."¹⁷⁰ As one of the dissenters wrote:

We cannot know what defense counsel would have said or done had he been present the first time around; nor can we ascertain with any degree of certainty how the prosecution's approach or the witness's answers might have changed if defense counsel had been present and able to participate in the process.¹⁷¹

Worse yet, there was also no way to know "what the jurors must have thought when they saw the district court commence proceedings without defense counsel present."¹⁷² For these reasons, the two dissenters categorized the error as "structural" within the meaning of the Supreme Court's *Cronic* precedent.¹⁷³ They also estimated that the error was not harmless beyond a reasonable doubt in any event.¹⁷⁴ Consistent with these decisions, they expressed the view that the error required reversal and a new, constitutionally-compliant, proceeding.¹⁷⁵

Judge Jill Pryor wrote a separate dissent in which she disagreed with her colleagues' understanding of the *Cronic* precedent.¹⁷⁶ According to her, *Cronic* laid down a per se rule that mandates reversal of the defendant's conviction upon finding a violation of his constitutional right to counsel "while the jury heard testimony that directly incriminated him."¹⁷⁷ A "case-by-case inquiry into prejudice," she wrote, "simply is inappropriate where

166. *Id.* at 1167 (citing *Sears v. Upton*, 561 U.S. 945, 945–46 (2010)).

167. *See id.* at 1229–34 (Wilson, J., dissenting); *id.* at 1249–51 (Martin, J., dissenting).

168. *Id.* at 1229.

169. *Id.* at 1230.

170. *Id.* at 1233 (citing *Sullivan v. Louisiana*, 508 U.S. 275, 281–82 (1993)).

171. *Id.* at 1233–34.

172. *Id.* at 1236.

173. *Id.* at 1229; 1249–50.

174. *Id.* 1239–41; 1246; 1248–51.

175. *Id.* at 1229; 1251.

176. *Id.* at 1251–52 (Jill Pryor, J., dissenting).

177. *Id.* at 1252–53, 1255.

structural error exists.”¹⁷⁸ She also estimated, however, that the defendant in fact suffered no prejudice because “[his] counsel’s absence was very brief, particularly with reference to the trial as a whole; we know from the transcript what transpired in counsel’s absence and when he returned; and the testimony counsel missed largely was repeated upon his return.”¹⁷⁹ Hence, had Judge Pryor not interpreted *Cronic* as a categorical rule, she would have joined the court’s decision to dismiss the appeal.¹⁸⁰

This case vividly illustrates the consequences of ignoring the epistemology of disagreement. Five judges out of seven¹⁸¹ coalesced around two factual findings. They held that the questioning of the government’s witness carried out in the absence of the defendant’s attorney was beyond a reasonable doubt (1) not critical to the trial¹⁸² and (2) harmless in the sense that it did not influence the jurors’ guilty verdict and consequently caused no prejudice to the defendant.¹⁸³ The remaining two judges firmly stood behind altogether different findings.¹⁸⁴ According to them, the unconstitutional questioning of the witness (1) might have been critical to the trial¹⁸⁵ and in any event, (2) might have been instrumental to the defendant’s conviction and hence prejudicial.¹⁸⁶ The majority rule used by our appeals system ironed this disagreement out by according superiority to the majority’s decision while giving no epistemic credit to the dissent.

From an epistemological point of view, brushing aside the dissenting opinion of two judges, instead of giving it the epistemic credit it deserves, is anomalous. This opinion constituted second-order evidence that reduced the reliability of the majority’s decision. This decision was inherently probabilistic and not foolproof, as Chief Judge Carnes openly acknowledged on behalf of the court.¹⁸⁷ By making this decision even less reliable than it purported to be, the dissent has raised serious, and hence reasonable, doubts about its factual correctness. The majority’s decision therefore could not be factually correct beyond a reasonable doubt. As a corollary, it could not justifiably verify the truth of any factual proposition

178. *Id.* at 1252.

179. *Id.*

180. *Id.*

181. This summary ignores the separate dissent of Judge Jill Pryor because she based it on purely legal, rather than factual, grounds.

182. *Id.* at 1144 (“Roy’s primary contention is that his counsel’s brief absence from the courtroom is *Cronic* error. It is not.”). See also *id.* at 1153.

183. *Id.* at 1156–57, 1166.

184. See *id.* at 1229–34 (Wilson, J., dissenting); *id.* at 1249–51 (Martin, J., dissenting).

185. *Id.* at 1229–34; 1249–51.

186. *Id.*

187. *Id.* at 1166–67.

beyond a reasonable doubt. Five judges out of seven therefore could not justifiably determine that the constitutional error in the *Roy* case was non-structural and harmless beyond a reasonable doubt. Factual findings that are not demonstrably true can only satisfy the “beyond a reasonable doubt” standard when they are unanimous.

Admittedly, our appellate practices cannot be guided by epistemological considerations alone and should respond to pragmatic concerns as well. Under certain conditions, therefore, policymakers might consider adopting a supermajority rule as a plausible, as well as practically necessary, substitute for the unanimity requirement. For example, when ten appellate judges out of eleven agree that a violation of the defendant’s right to counsel was harmless beyond a reasonable doubt, dismissing the appeal over the dissent of a single judge may be justified on pragmatic grounds and also would not be deeply objectionable from an epistemological point of view.

This, however, is not the case when one third of the judges disagree with the majority. A recent Fourth Circuit decision, *United States v. Garcia-Lagunas*,¹⁸⁸ is a case in point. In this case, the court was asked to review a drug trafficking conviction of a defendant of Mexican origin.¹⁸⁹ Drugs seized from the defendant’s trailer included only a small baggie of crack cocaine.¹⁹⁰ The prosecution nonetheless accused him of selling 500 kilograms of cocaine and called four witnesses to testify.¹⁹¹ The defendant claimed that he was a drug user, but not a drug dealer,¹⁹² and drew the jury’s attention to his very modest living.¹⁹³ In rebuttal, the prosecution called a police detective to testify that “Hispanic drug traffickers [have a] very modest living [because] they send the majority if not all of the proceeds back to their native countries.”¹⁹⁴ The trial judge admitted this testimony over the defendant’s objection¹⁹⁵ and the trial continued.¹⁹⁶ At the end of the trial, the jury found the defendant guilty as charged and the judge sentenced him to 188 months in jail.¹⁹⁷ The defendant’s subsequent appeal against the conviction centered on the judge’s ruling that admitted the stereotypical generalization about “Hispanic drug traffickers” into evidence.¹⁹⁸

188. 835 F.3d 479 (4th Cir. 2016).

189. *Id.* at 483–84.

190. *Id.* at 484.

191. *Id.* at 485, 489.

192. *Id.* at 486.

193. *Id.*

194. *Id.*

195. *Id.*

196. *Id.* at 486–87.

197. *Id.* at 487.

198. *Id.*

The prosecution conceded that this ruling was a constitutional error¹⁹⁹ and the court of appeals decided to proceed from that baseline premise.²⁰⁰ That premise was legally correct as well because “[a]ppeals to racial, ethnic, or religious prejudice during the course of a trial violate a defendant’s Fifth Amendment right to a fair trial.”²⁰¹ The court of appeals, however, decided that this error was harmless beyond a reasonable doubt²⁰² and affirmed the defendant’s conviction.²⁰³ This decision was supported by two judges out of three,²⁰⁴ who relied on evidence that appeared overwhelming.²⁰⁵ This evidence included phone records that corroborated the testimony of three out of four witnesses who testified that the defendant sold them 500 kilograms of cocaine.²⁰⁶ Consistent with drug traffickers’ behavior, these records showed “an extraordinary volume of phone calls in a compressed period of time.”²⁰⁷ The prosecution had also proven that the defendant was in possession of two scales, large and small, a bulletproof vest, and a revolver²⁰⁸ and brought a witness who testified that these items, too, represent the modus operandi of drug traffickers.²⁰⁹ Based on this evidence, the majority of the court concluded that a rational jury would have found the defendant guilty as charged even if they did not hear the offensive stereotype about Hispanic drug dealers.²¹⁰

According to the dissenting judge, the government failed to establish beyond a reasonable doubt “that its clearly unconstitutional use of a blatant ethnic generalization did not contribute to the jury’s verdict.”²¹¹ The dissent relied on a simple fact: the government offered no admissible evidence to rebut the defendant’s innocence theory that drew the jury’s attention to his poor living.²¹² From this fact, the dissenting judge inferred that the government did need its inadmissible evidence to explain to the jury why a

199. *Id.* at 501 (Davis, J., dissenting) (“During oral argument, when asked whether the error amounted to constitutional error, counsel for the Government responded unequivocally, ‘Yes.’”).

200. *Id.* at 487.

201. *United States v. Cabrera*, 222 F.3d 590, 594 (9th Cir. 2000).

202. *Garcia-Lagunas*, 835 F.3d at 492.

203. *Id.* at 497.

204. *Id.* 483–84.

205. *Id.* at 489 (“We are satisfied beyond a reasonable doubt that—even without the government’s improper use of an ethnic stereotype—a rational jury still would have arrived at that verdict.”).

206. *Id.*

207. *Id.* (parentheses omitted).

208. *Id.* at 489–90.

209. *Id.* at 490.

210. *Id.* at 492.

211. *Id.* at 497 (Davis, J., dissenting).

212. *Id.* at 499–500.

person who sells drugs for hundreds of thousands of dollars elected to live like a pauper.²¹³

The court's dismissal of the defendant's appeal runs against the epistemology of disagreement. Here too, the dissenting judge's opinion undercut the reliability of the majority's decision. This opinion may not have deserved the same epistemic credit as the two judges' decision, but it ought to have been given some epistemic credit, big enough to raise a reasonable doubt and overturn the defendant's conviction instead of dismissing his appeal.²¹⁴

IV. DISAGREEMENTS ABOUT MEANINGS OF STATUTES AND CONSTITUTION

A. Theory

1. Analytical Background

When a judge writes in her decision that the meaning of a statutory or constitutional provision is *X*, this statement can be factual, normative, or autocratic. A judge's statement will qualify as factual when it relies on the available empirical information about *X*, and only on that information. Apart from the provision's text, this information will usually include the relevant linguistic usage and conventions, the history of the provision's enactment or ratification, and the goals that its drafters wanted to achieve. When a judge chooses *X* because she believes that it is intrinsically valuable or brings about socially desirable consequences, her statement will be normative. Finally, when a judge decides that the provision means *X* because she wants it to mean *X*, her statement will be autocratic.

Any statement that purports to make sense must expressly or implicitly assert its own correctness or validity.²¹⁵ The statement consequently must rely on the speaker's criteria for correctness or validity.²¹⁶ When a judge

213. *Id.* at 500–01.

214. The three-judge unanimity requirement is not unheard of. *See, e.g.*, Neb. Rev. St. § 29-2521 (requiring that aggravating circumstances for murder offenses be proven beyond a reasonable doubt to a panel of three judges and that “[e]ach finding of fact with respect to each alleged aggravating circumstance shall be unanimous.”); *Rainsberger v. Fogliani*, 380 F.2d 783, 784–85 (9th Cir. 1967) (examining the 1960 version of the Nevada statute, Nev. Rev. Stat. § 200.030, that required a panel of three judges to agree unanimously that the defendant's homicide crime constitutes murder of the first degree and impose the death penalty).

215. This point originates from ALFRED J. AYER, *LANGUAGE, TRUTH AND LOGIC* 17 (1935) (“[U]ntil [a person] makes us understand how the proposition that he wishes to express would be verified, he fails to communicate anything to us.”).

216. *Id.* *See also id.* at 21 (categorizing propositions offering no criteria for verifiability as

makes a factual statement about the meaning of a statutory or constitutional provision, the criteria for verifying that statement will include the provision's language and other empirically verifiable information. The judge's statement will consequently be as correct as its supporting empirical information. When a judge speaks normatively in ascribing meaning to a statute or constitutional provision, her statement will expressly or implicitly allude to some vision or theory of the good. The judge's statement will consequently be as valid as its supporting vision or theory of the good. The statement will then only be valid as a proposition of law when a given society recognizes that vision or theory as a source of law. Finally, when a judge makes an autocratic statement that the relevant statutory or constitutional provision means *X*, she offers no external verification criteria for that statement. All she says, expressly or implicitly, is that she wants the provision to mean *X*. The judge's will thus becomes the only criterion for validating her statement about the provision's meaning. Consequently, the statement will only be valid as a proposition of law in a society that recognizes the judge's will as a source of law.²¹⁷

These distinctions run parallel to the lines drawn by scholarly debates about constitutional and statutory interpretations. Academics and academically minded judges participating in those debates have made multiple claims concerning the methods for ascertaining the meanings of statutory and constitutional provisions. These claims often conflict with each other. They have been popularized as textualism,²¹⁸ intentionalism,²¹⁹

“literally nonsensical”).

217. See H.L.A. HART, *THE CONCEPT OF LAW* 100–06 (3d ed. 2012) (explaining the “rule of recognition”).

218. See, e.g., Abbe R. Gluck, *The States as Laboratories of Statutory Interpretation: Methodological Consensus and the New Modified Textualism*, 119 *YALE L.J.* 1750, 1762–66 (2010) (describing textualism as a strict reliance on statutory text and associating it with the jurisprudence of Justice Antonin Scalia).

219. See, e.g., Richard H. Fallon Jr., *The Meaning of Legal “Meaning” and Its Implications for Theories of Legal Interpretation*, 82 *U. CHI. L. REV.* 1235, 1286 (2015) (describing intentionalism as a claim that “evidence of legislative intent should sometimes inform the resolution of reasonable uncertainties regarding statutory meaning”).

originalism,²²⁰ purposivism,²²¹ pragmatism,²²² realism,²²³ critical legal theories,²²⁴ and Dworkinianism.²²⁵ Some of these claims purport to describe actual judicial practices.²²⁶ Other claims are normative: they single out and recommend interpretive methodologies based on the methodologies' virtues.²²⁷

Textualism, intentionalism, originalism and, for the most part, purposivism as well, are all methods for ascertaining the true meanings of statutes and constitutional provisions.²²⁸ These methodologies consequently fall into my "factual" category.²²⁹ Pragmatism and realism, in turn, are theories that express deep skepticism about judges' ability and need to ascertain the true meanings of statutes and constitutional provisions.²³⁰ Extreme versions of pragmatism and realism that inform critical legal

220. For contemporary analyses of originalist theories, see, e.g., Lawrence B. Solum, *The Constraint Principle: Original Meaning and Constitutional Practice*, (March 24, 2017) (unpublished manuscript) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2940215 (describing originalism as a family of constitutional theories coalescing around the premise that the original meaning of the constitutional text should constrain constitutional practices); Jamal Greene, *Rule Originalism*, 116 COLUM. L. REV. 1639 (2016) (arguing that American judges, lawyers, and scholars use originalist sources to resolve factual disputes over the meanings of narrowly formulated constitutional rules, while using less stringent interpretive methods with regard to broad standards); William Baude, *Is Originalism Our Law?*, 115 COLUM. L. REV. 2349 (2015) (advancing a positive claim that originalism is part of the American constitutional law).

221. Gluck, *supra* note 218, at 1764 (describing purposivism as a theory urging "a more expansive judicial role in statutory interpretation, in which courts act in partnership with the legislature in the elaboration of statutory meaning").

222. See generally RICHARD A. POSNER, *LAW, PRAGMATISM, AND DEMOCRACY* 57–67 (2003) (arguing that courts should, and often tend to, interpret legal rules in a way that produces best outcomes for society).

223. See Brian Leiter, *Rethinking Legal Realism: Toward a Naturalized Jurisprudence*, 76 TEX. L. REV. 267, 275–76 (1997) (describing legal realism as a descriptive claim that judges decide cases by using their intuitions and sense of justice while paying a lip service to formal rules).

224. See generally Roberto Mangabeira Unger, *The Critical Legal Studies Movement*, 96 HARV. L. REV. 561 (1983) (outlining the critical legal studies' perspective as including a realization that legal texts are plagued with indeterminacy and structural contradictions, a wholesale denial of the possibility of ascribing objective meanings to those texts, and a consequent recognition that the meaning of the law at any given point in history is determined one-sidedly by the holders of political power).

225. See DWORKIN, *supra* note 59, at 397–407 (arguing that legal interpretation should cast rules, principles and doctrines in their best moral light).

226. These variegated claims include textualism, intentionalism, purposivism, pragmatism, realism, and Critical Legal Studies.

227. This description captures Dworkinianism along with some purposivist and pragmatist theories.

228. See *supra* notes 218–221 and sources cited therein.

229. Cf. GARY LAWSON, *EVIDENCE OF THE LAW: PROVING LEGAL CLAIMS* 1–3 (2017) (arguing that claims about the meaning of the law are predominantly factual and must consequently be an object of proof "as a matter of epistemological necessity").

230. See, e.g., POSNER, *supra* note 222, at 272 ("The basic norm tells us whose interpretation has the force of law: the judge's, because he *is* a judge, acting within the scope of his jurisdiction, not because he can point to a text-based command that he *is* repeating without creative embellishment.").

theories' claim, in addition, that there is no such thing as a true statutory or constitutional meaning.²³¹ Critical theories also underscore the prevalence of power over reason in courts' decisions that ascribe meanings to statutes and constitutions.²³² Under my taxonomy, these theories place courts' decisions about propositions of law in the "autocratic" category.

Dworkinianism is a theory named after its inventor, Professor Ronald Dworkin.²³³ This theory is situated between factualism and autocracy. On the theoretical side, Dworkinianism maintains that the methodology identified here as factual only works in easy cases featuring statutory and constitutional provisions that have a plain meaning.²³⁴ All other cases, identified as "hard," require a different methodology that relies on a moral understanding of the legal text.²³⁵ This methodology requires the judge to view settled law as a moral practice, to identify general moral principles that best explain that practice, and then read those principles into ambiguous statutes and constitutional provisions (as well as into the unclear common-law doctrines) in a way that maintains coherence across the legal system as a whole.²³⁶ Dworkinianism, as applied to hard cases, squarely falls into the category identified above as "normative."

2. *Epistemology at Work*

Epistemology does not have much to contribute to normative discussions as to what law ought to be. Epistemology focuses upon knowledge of facts and is far removed from conversations about moral and political desiderata. For the same reason, epistemology cannot advance the understanding of autocratic judiciary and its fact-free statements about the meanings of legal rules. From an epistemological standpoint, propositions identifying the meaning of a legal rule can only be justified when they rely on reason rather than fiat. Social forces, biases, and imbalances of power that allow judges to make autocratic decisions or act as "politicians in robes" are important phenomena that merit serious investigation. Disciplines capable of guiding such investigations include political theory, sociology, and social

231. See Unger, *supra* 224, at 568–70.

232. See ANDREW ALTMAN, CRITICAL LEGAL STUDIES: A LIBERAL CRITIQUE 13–14 (1993) (explaining the critical legal studies' argument that moral and political pluralism makes legal reasoning impossible and that judges inevitably "impose their own views of the moral or political good on others under the cover of law"); MARK KELMAN, A GUIDE TO CRITICAL LEGAL STUDIES 199–202 (1987) (stating the critical legal studies' claim that judging is an irreducibly political endeavor).

233. See DWORKIN, *supra* note 59.

234. *Id.* at 6–11.

235. *Id.* at 225, 238–57.

236. *Id.* at 19–20, 95–96, 225–27, 254–58.

psychology. Epistemology is not one of those disciplines: it only comes into play when decision-makers try to ascertain the true facts rather than form opinions on matters of right and wrong. Yet, because true facts oftentimes matter a lot, epistemology matters a lot as well.

Factual claims about the meaning of a legal rule, are therefore a proper subject for epistemological inquiry. When a judge writes in her decision that the meaning of a statutory or constitutional provision is *X* as a matter of fact, this proposition must be epistemically justified. Failure to provide such justification would make the proposition unreasoned and hence autocratic, rather than factual. To justify a decision that ascribes factual meaning *X* to a legal rule, the judge must rely on empirical facts, which include the rule's language, purpose, and history, and on the background information about linguistic usage and conventions. These facts must indicate that the rule actually says *X*, as opposed to something else. Preferably, these facts should contain enough cues that are counterfactually sensitive to *X*. To satisfy this requirement, it would not be enough for those cues to indicate that *X* is a plausible meaning of the rule. Those cues also should not show up in any hypothetical scenario in which the rule has a meaning different from *X*. As a second choice, the judge must search for and find enough cues that satisfy a less stringent standard, describable as relative plausibility or best explanation.²³⁷ Under this more realistic standard, the judge would be able to determine that the rule actually says *X* if the cues supporting this understanding of the rule continue to support it under every *plausible* assumption about the facts that are still unknown. Put differently, cues that identify *X* as the rule's meaning need to do so in all hypothetical scenarios that come to mind except those that are far removed from the case at bar. By using such cues, the judge will determine the factually correct meaning of the rule with a high degree of probability.²³⁸

When such factual decisions are made by tribunals consisting of several judges, the epistemology of disagreement becomes relevant as well. For reasons I already provided, judges serving in multimember courts should be considered epistemic peers, whose opinions—including dissents—should always play a role in the final decision.²³⁹ Hence, when a minority of the Supreme Court Justices disagree with the majority about the factual meaning of a particular statute or constitutional provision, this disagreement

237. For full explication of this standard, see Michael S. Pardo & Ronald J. Allen, *Juridical Proof and the Best Explanation*, 27 L. & PHIL. 223, 227–38 (2008).

238. Cf. Fallon, *supra* note 219, at 1297–99 (arguing that questions about meanings of statutory and constitutional provisions are best resolved on a case-by-case basis).

239. See *supra* notes 42–47 and accompanying text.

should not be buried under the weight of the ensuing precedent. Instead, it should reduce the precedent's weight and make it open to future revision. The extent to which the Court's precedent should be open to such revisions will depend on the number of dissenters. With four dissenting Justices, the precedent should be reassessed when the first opportunity to reexamine it presents itself. When the number of dissenters goes down to three, two, and one, the precedent becomes weightier, and the Court should justifiably feel more reluctant to revise it. This principle should apply to precedents delivered by state supreme courts as well.

3. Illustrations

The following illustrations will clarify how this proposal will work. The first of these illustrations is a classic Supreme Court decision on statutory interpretation, *West Virginia University Hospitals v. Casey*.²⁴⁰ My second illustration features the Supreme Court's decision *Melendez-Diaz v. Massachusetts*²⁴¹ that ascribed meaning to the Sixth Amendment's word "witness."²⁴² Both decisions were delivered by the Court's majority that overrode the opinions of dissenting Justices.²⁴³

In *West Virginia University Hospitals v. Casey*,²⁴⁴ the Supreme Court had to determine the scope of the Civil Rights Act (CRA) provision that authorized courts to award "a reasonable attorney's fee" to a plaintiff who successfully prosecuted a civil rights suit.²⁴⁵ Specifically, the Court had to decide whether the "attorney's fee" that courts could shift to the losing defendant included the plaintiff's expenditures on experts who helped her attorney prepare and prosecute the suit.²⁴⁶ This question arose in connection with a Medicaid reimbursement suit won by West Virginia University Hospitals.²⁴⁷ The suit's preparation and prosecution was assisted by an accounting firm and three doctors specializing in hospital finance.²⁴⁸ These experts collectively received over \$100,000 for their services.²⁴⁹

240. 499 U.S. 83 (1991) [hereinafter *WVUH*].

241. 557 U.S. 305 (2009).

242. See U.S. CONST. amend. VI (entitling every criminal defendant to confront "witnesses against him").

243. See *WVUH*, 499 U.S. at 84, 102; *Melendez-Diaz*, 557 U.S. at 306, 330.

244. 499 U.S. 83 (1991).

245. See 42 U.S.C. § 1988 (1964), superseded by the Civil Rights Act of 1991, § 113, codified as 42 U.S.C. § 1988(c).

246. *WVUH*, 499 U.S. at 84.

247. *Id.* at 85.

248. *Id.*

249. *Id.*

The Court answered the question in the negative in a 6-3 decision.²⁵⁰ Justice Scalia delivered the majority opinion,²⁵¹ which relied primarily on the statutory text and its usage.²⁵² First and foremost, Justice Scalia observed that, alongside the CRA, Congress has enacted numerous other statutes with fee-shifting provisions that explicitly encompass expenditures on experts and consultants.²⁵³ Moreover, in its reference to general testimonial services, the CRA limited witnesses' compensation to a daily attendance fee in the amount of \$30.²⁵⁴ Additionally, when the CRA's fee-shifting provision was enacted, "neither statutory nor judicial usage regarded the phrase 'attorney's fees' as embracing fees for experts' services."²⁵⁵ These three factors strongly indicated that the CRA's fee-shifting provision did not cover the plaintiff's expenditures on experts.²⁵⁶ Because Congress was well aware of those expenses and acted on multiple occasions to affirmatively authorize courts to shift them to the losing defendant, the proposition that it simply forgot to include a similar authorization in the CRA or, conversely, granted it by allowing courts to award plaintiffs "attorney's fees" flatly contradicted statutory texts.²⁵⁷

The dissenting Justices disagreed with this analysis because it paid no regard to the congressional intent.²⁵⁸ By enacting the CRA's fee-shifting provision, Congress intended to incentivize the filing and prosecution of public interest suits.²⁵⁹ When prospective plaintiffs anticipate recovering no reimbursement for their expenditures on experts, many of them might prefer not to sue and let civil rights' violators go scot free. This consequence undercuts the CRA's social purpose and therefore runs against Congress's intent.²⁶⁰ According to the dissenting Justices, Congress simply forgot to specify the expression "attorney's fee" as including the plaintiff attorneys'

250. *Id.* at 102.

251. *Id.* at 84.

252. *Id.* at 88–92.

253. *Id.* at 88.

254. *Id.* at 96–97 (quoting 28 U.S.C. §§ 1920(3), 1821(b)).

255. *Id.* at 97.

256. *Id.* at 88–89.

257. *Id.* at 92, 99.

258. *Id.* at 102 (Marshall, J., dissenting); 115 (Stevens, J., dissenting).

259. *See id.* at 102 (Marshall, J., dissenting); 103 (Stevens, J., dissenting).

260. *See id.* at 102–03 (Marshall, J., dissenting) (citing *Hidle v. Geneva County Bd. of Ed.*, 681 F. Supp. 752, 758–59 (M.D. Ala. 1988)). *See also* Gideon Parchomovsky & Alex Stein, *Empowering Individual Plaintiffs*, 102 CORNELL L. REV. 1319, 1330–35 (2017) (identifying structural disparities in litigation costs between individual plaintiffs and institutional defendants and showing that plaintiffs facing such disparities have no rational incentive to sue).

expenses on experts and consultants;²⁶¹ and it is also possible that “attorney’s fee” was actually meant to include those expenses as well.²⁶²

Aptly identified by Professor John Manning as “intent skeptic,”²⁶³ Justice Scalia dismissed this argument rather cavalierly by saying that “the purpose of a statute includes not only what it sets out to change, but also what it resolves to leave alone.”²⁶⁴ This response begs the question because whether Congress actually *resolved* to leave expert expenses alone or left them alone inadvertently was the very issue that the Court had to decide. Another issue on which the Court had to rule was whether Congress had indeed left expert expenses alone instead of incorporating them in “attorney’s fees.” Arguably, therefore, Justice Marshall made a valid point when he wrote that the Court’s majority “uses the implements of literalism to wound, rather than to minister to, congressional intent in this case.”²⁶⁵

From an epistemological perspective, none of these analyses could claim to have identified the meaning of the CRA’s fee-shifting provision with absolute certainty. The majority’s understanding that “attorney’s fees” do not include expenses on experts could be unquestionably correct if the inclusion and the inadvertent-omission scenarios, favored by the dissenting Justices, had a zero probability to be correct. This, however, was not the case. By the same token, the dissent’s opinion that one of its interpretations—inclusion or inadvertent omission—is unquestionably correct could only hold if the majority’s exclusion scenario had a zero probability to be correct. This zero-probability assumption was patently false as well. The exclusion, the inclusion, and the inadvertent-omission scenarios were all in the realm of the probable. Each of those scenarios had a non-negligible probability of being true. The Justices consequently had no choice but to base their interpretation of “attorney’s fees” on the most probable scenario. Arguably, this is also what they actually did notwithstanding their rhetoric of certainty.²⁶⁶

261. See *WVUH*, 499 U.S. at 115 (Stevens, J., dissenting) (“[W]e do the country a disservice when we needlessly ignore persuasive evidence of Congress’ actual purpose and require it . . . to restate its purpose in more precise English whenever its work product suffers from an omission or inadvertent error.”).

262. See *id.* at 107–08 (Stevens, J., dissenting) (observing that attorneys nowadays need expert help to effectively represent clients).

263. See John F. Manning, *Inside Congress’s Mind*, 115 COLUM. L. REV. 1911, 1911, 1932–33 (2015) (discussing Justice Scalia’s refusal to treat Congress’s intent as a benchmark for statutory interpretation).

264. *WVUH*, 499 U.S. at 98 (citing *Rodriguez v. United States*, 480 U.S. 522, 525–26 (1987)).

265. *Id.* at 102 (Marshall, J., dissenting).

266. The Justices’ disagreement can also be understood as a clash between strict textualism and unrestricted purposivism. From an epistemological standpoint, these extreme methodologies are unacceptable because they suppress valuable information that courts must consider. Strict textualism

Epistemological principles also require that the Court's decision account for its members' disagreement about relevant probabilities. Assume that six Justices out of nine had decided, as they did in the *WVUH* case, that the meaning of "attorney's fees" as excluding expert expenses has the highest probability of being correct. This decision surely deserves to carry the day because it attracted a sizable majority of the Justices. But should it preclude future revisions, given that the remaining three Justices have chosen to ascribe the highest probability to a much broader interpretation of "attorney's fees"? I believe it should not. The dissent voiced by the majority's epistemic peers, who make one-third of the Court, did not win, but it also did not lose its epistemic value.²⁶⁷ As I explained earlier in this Article, this epistemic value is best conceptualized as second-order evidence that goes to the reliability of the majority's decision.²⁶⁸ This evidence should reduce the decision's epistemic strength in proportion with the number of dissenters. The majority's decision consequently becomes less reliable than it would have been had it faced fewer dissenters or no dissenters at all. Decisions supported by a majority of five, or even six, Justices out of nine therefore should remain open to reconsideration as a precedent.²⁶⁹

Consider now the *Melendez-Diaz* decision,²⁷⁰ in which a majority of five Justices ruled that state laws cannot constitutionally allow the prosecution in a criminal case to use a forensic expert's "certificate of analysis" as evidence of drug identification unless the expert testifies in court and makes

suppresses information about the legislature's intent and unrestricted purposivism overrides statutory text. Instead of categorically preferring text over intent, or vice versa, courts should integrate both types of information in a decision that determines the most probable meaning of the underlying statutory or constitutional provision. This integrative approach strikes me as the best approximation of what courts actually do, but whether my intuition is correct is a big question that deserves a separate article-length treatment. Cf. William Baude & Ryan D. Doerfler, *The (Not So) Plain Meaning Rule*, 84 U. CHI. L. REV. 539, 541, 546–47 (2017) (arguing that courts should consider all information relevant to ascertaining the meaning of a legal rule when the rule seems clear); Abbe R. Gluck, *Congress, Statutory Interpretation, and the Failure of Formalism: The CBO Canon and Other Ways That Courts Can Improve on What They Are Already Trying to Do*, 84 U. CHI. L. REV. 177 (2017) (criticizing formalist rules of statutory interpretation and arguing that courts should ascertain the meanings of federal statutes by accounting for the realities of the legislative process and congressional drafting practices).

267. Tellingly, the dissent in the *WVUH* case may well have gotten it right. Congress's enactment of the Civil Rights Act of 1991, § 113, Pub. L. No. 102–166, indicates that the inadvertent-omission scenario was correct. See 42 U.S.C. § 1988(c) ("In awarding an attorney's fee under subsection (b) of this section in any action or proceeding to enforce a provision of section 1981 or 1981(a) of this title, the court, in its discretion, may include expert fees as part of the attorney's fee."); *Landgraf v. USI Film Products*, 511 U.S. 244, 251 (1994) (acknowledging that the Civil Rights Act of 1991, § 113, codified as 42 U.S.C. § 1988(c), responded to the *WVUH* decision).

268. See *supra* notes 11, 32–33 and accompanying text.

269. Whether such reconsideration should result in overruling the precedent is a question of policy that cannot be resolved on epistemological grounds. See *infra* notes 297–303 and accompanying text.

270. *Melendez-Diaz v. Massachusetts*, 557 U.S. 305 (2009).

herself available for cross-examination by the defendant's attorney.²⁷¹ This ruling relied on the Sixth Amendment that entitles a criminal defendant "to be confronted with the witnesses against him."²⁷² According to this ruling, an expert who produces a certificate of analysis identifying a substance seized from the defendant as a controlled drug counts as a "witness" for purposes of the Sixth Amendment Confrontation Clause.²⁷³ Justice Scalia, joined by Justices Stevens, Thomas, Souter, and Ginsburg, reasoned that this ruling squarely aligns with the Framers' intent.²⁷⁴ Part of this decision drew upon Justice Scalia's historical analysis of the Confrontation Clause in *Crawford v. Washington*.²⁷⁵ This analysis revealed that the Framers intended the Clause to forestall the abhorrent practice of trial by ex parte affidavits, which took place in the British treason trials throughout the sixteenth and the seventeenth centuries.²⁷⁶ As part of that practice, the government enlisted informants and other producers of information incriminating the defendant—usually, a *persona non grata*—who would sign a sworn affidavit or give the government another formal statement in the defendant's absence.²⁷⁷ The government would subsequently adduce the affidavit or statement into evidence while taking advantage of the defendant's inability to confront and question his accuser.²⁷⁸ The Framers formulated the Confrontation Clause in order to deny the government this one-sided power over the flow of information into the courtroom.²⁷⁹

Based on this analysis, Justice Scalia decided that experts generating forensic documentation that the government subsequently uses as inculpatory evidence are no different from the old-day ex parte declarants whose word sent defendants to jail or to gallows.²⁸⁰ Historical evidence, however, could not justify this holding. Because forensic experts did not

271. *Id.* at 309–11, 329.

272. U.S. CONST. amend. VI.

273. *Melendez-Diaz*, 557 U.S. at 309–11.

274. *Id.* at 315–17.

275. 541 U.S. 36 (2004).

276. *Id.* at 42–50, 62.

277. *Id.*

278. *Id.*

279. *Id.* at 51, 53, 66 ("An accuser who makes a formal statement to government officers bears testimony in a sense that a person who makes a casual remark to an acquaintance does not. The constitutional text, like the history underlying the common-law right of confrontation, thus reflects an especially acute concern with a specific type of out-of-court statement. . . . The involvement of government officers in the production of testimonial evidence presents the same risk, whether the officers are police or justices of the peace. . . . The Framers would be astounded to learn that *ex parte* testimony could be admitted against a criminal defendant because it was elicited by "neutral" government officers.").

280. *Melendez-Diaz*, 557 U.S. at 310 ("There is little doubt that the documents at issue in this case fall within the 'core class of testimonial statements' thus described.").

exist at the time of the old British treason trials, the hypothesis that the Framers wanted to preclude the government from using their certificates as evidence against the accused was factually false. This simple point was made by Justice Kennedy, who wrote the dissenting opinion joined by Chief Justice Roberts and Justices Breyer and Alito.²⁸¹ For Justice Kennedy, the word “witnesses” that the Framers used in the Confrontation Clause referred to conventional witnesses, rather than to “laboratory analysts who perform scientific tests.”²⁸²

The dissent was also right in suggesting that the majority’s holding could not be justified by logic. Unlike conventional witnesses, who hold a lot of private information that cannot be verified, forensic experts use scientific methodologies that open their evidence to scrutiny.²⁸³ Anything they say or write can be examined and effectively challenged by other experts.²⁸⁴ Forensic experts also differ from conventional witnesses motivationally. Each of those experts “is equally remote from the scene, has no personal stake in the outcome, does not even know the accused, and is concerned only with the performance of his or her role in conducting the test.”²⁸⁵

These factors reduce the majority’s probability of being factually correct about the meaning of “witnesses.” This probability, however, still remains high on account of Justice Scalia’s general historical observations. As he explained in both *Melendez-Diaz* and the *Crawford* decision, the gist of the Confrontation Clause is mistrust of the government, not mistrust of the evidence.²⁸⁶ For that reason, “the paradigmatic [British treason] case identifies the core of the right to confrontation, not its limits.”²⁸⁷ Forensic experts are surely not conventional witnesses, but malevolent government officers can fabricate forensic evidence as well.²⁸⁸

From an epistemological point of view, this 5–4 decision makes *Melendez-Diaz* a weak precedent. Five Justices out of nine have decided that the Sixth Amendment’s word “witnesses” includes forensic experts who submit their reports to the government. The remaining four Justices

281. *Id.* at 330 (Kennedy, J., dissenting).

282. *Id.*

283. *Id.* 337–40.

284. *Id.* at 340.

285. *Id.*

286. *Id.* at 317–19. *See also Crawford*, 541 U.S. at 61–62 (“To be sure, the Clause’s ultimate goal is to ensure reliability of evidence, but it is a procedural rather than a substantive guarantee. It commands, not that evidence be reliable, but that reliability be assessed in a particular manner: by testing in the crucible of cross-examination. . . . Dispensing with confrontation because testimony is obviously reliable is akin to dispensing with jury trial because a defendant is obviously guilty.”).

287. *Melendez-Diaz*, 557 U.S. at 315.

288. *Id.* at 318–19.

have opined that this word does not refer to forensic experts. Both coalitions made factual claims about the meaning of a recurrent legal term and the Framers' intent. Those claims could be simultaneously false, but not simultaneously correct. One of the claims was therefore necessarily false, but both of them still had a non-negligible probability of being true. Critically, the four-Justice minority opinion substantially reduced the reliability of the Court's decision.

Under these epistemic conditions, the majority's interpretation of the word "witnesses" calls for reexamination at the earliest occasion. Unsurprisingly, therefore, the Supreme Court has already revisited *Melendez-Diaz* twice. In its 2011 decision, *Bullcoming v. New Mexico*,²⁸⁹ the Court reconfirmed *Melendez-Diaz* by a new five-Justice majority.²⁹⁰ In 2012, the Court decided *Williams v. Illinois*,²⁹¹ a complex decision that weakened the precedential force of the *Melendez-Diaz* ruling.²⁹²

B. Doctrine

Whether the precedent doctrine evolving in the Supreme Court's jurisprudence aligns with the epistemology of disagreement is hard to tell. While delivering the Court's decision in *Payne v. Tennessee*,²⁹³ Chief Justice Rehnquist wrote that the general principles governing judicial adherence to precedent allow overturning prior rulings "decided by the narrowest of margins, over spirited dissents challenging the basic underpinnings of those decisions."²⁹⁴ The Chief Justice also observed that the Court's application of these principles "has during the past 20 Terms overruled in whole or in part 33 of its previous constitutional decisions."²⁹⁵ Based on the "narrow margin and spirited dissent" criterion, the Chief Justice controversially decided to overturn the Court's previous precedents that blocked the introduction of victim impact statements in capital cases.²⁹⁶

289. 564 U.S. 647 (2011).

290. *Id.* at 651–52.

291. 567 U.S. 50 (2012).

292. *Williams* features a plurality opinion of Justice Alito, who was joined by Chief Justice Roberts and Justices Kennedy and Breyer. This opinion categorized a DNA lab report "not prepared for the primary purpose of accusing a targeted individual" and not having a "prospect of fabrication" or "incentive to produce anything other than a scientifically sound and reliable profile" as nontestimonial. *Id.* at 84–85. The report's preparer and similarly situated experts were consequently removed from the Sixth Amendment's definition of "witnesses" who testify against the accused. *See id.* at 82, 84–85.

293. 501 U.S. 808 (1991).

294. *Id.* at 828–29.

295. *Id.* at 828.

296. *Id.* at 828–30, 832–33, 835 (overturning *Booth v. Maryland*, 482 U.S. 496 (1987), and *South Carolina v. Gathers*, 490 U.S. 805 (1989)). *See also id.* at 834 (Scalia, J., concurring) ("[W]hat would

The “narrow margin and spirited dissent” criterion for overturning precedent has been harshly criticized,²⁹⁷ and its doctrinal status is yet to be determined.²⁹⁸ A recent study of precedents carried out by Professor Randy Kozel²⁹⁹ identifies two jurisprudential strands that pull the doctrine in different directions. On the one hand, a “major question in defining the strength of precedent is whether a decision’s unsound reasoning and flawed result are themselves sufficient to warrant its overruling.”³⁰⁰ Furthermore, precedents also play an important economic role in our legal system. By applying a discrete court ruling to a question of law in multiple cases, this system generates substantial economies of scale. For that reason, judicial time and effort that go into a fact-based revision of a broadly applicable precedent will virtually always pay off. This investment may be costly, but

enshrine power [instead of reason] as the governing principle of this Court is the notion that an important constitutional decision with plainly inadequate rational support *must* be left in place for the sole reason that it once attracted five votes.”).

297. The strongest criticism came from Justice Thurgood Marshall:

Taking into account the majority’s additional criterion for overruling—that a case either was decided or reaffirmed by a 5–4 margin “over spirited dissent”—the continued vitality of literally scores of decisions must be understood to depend on nothing more than the proclivities of the individuals who now comprise a majority of this Court. . . . [T]his campaign to resurrect yesterday’s “spirited dissents” will squander the authority and the legitimacy of this Court as a protector of the powerless.

Id. at 851, 856 (Marshall, J., dissenting) (citations and emphasis omitted). *See also* Michael J. Gerhardt, *The Role of Precedent in Constitutional Decisionmaking and Theory*, 60 GEO. WASH. L. REV. 68, 113 (1991) (“[T]he argument that 5–4 decisions with vigorous dissents are entitled to less than the usual (low) level of deference given to constitutional precedents is inimical to the rule of law in our society. These decisions state rules of law, no more nor less than any of the other of the Court’s decisions. Moreover, many of the Court’s 5–4 decisions . . . practically are immune to reconsideration or overruling, even though they included vigorous dissents. It would disrupt our legal system severely for anyone on or off the Court to treat a 5–4 vote with a vigorous dissent as a rule of law entitled to less respect from the Court and other government decisionmakers than any of the Court’s other constitutional law decisions.” (citations omitted)); Amy L. Padden, Note, *Overruling Decisions in the Supreme Court: The Role of a Decision’s Vote, Age, and Subject Matter in the Application of Stare Decisis After Payne v. Tennessee*, 82 GEO. L. J. 1689, 1708–09 (1994) (arguing that “giving reduced precedential weight to [5–4] decisions undermines the very goals that stare decisis was designed to achieve” and criticizing the proponents of this approach, Chief Justice Rehnquist and Justice Scalia, for forming similar 5–4 coalitions to establish precedents they support).

298. Chief Justice Roberts’s concurrence in the Court’s *Citizens United* decision relied on that criterion as a ground for overruling *Austin v. Mich. Chamber of Commerce*, 494 U.S. 652 (1990), a 5–4 majority holding that state-imposed restrictions on corporate electioneering expenditures are constitutional. *See Citizens United v. FEC*, 558 U.S. 310, 380 (2010) (“[T]he validity of *Austin*’s rationale—itsself adopted over two ‘spirited dissents’—has proved to be the consistent subject of dispute among Members of this Court ever since” (citing *Payne*, 501 U.S. at 829)). *See also* Michel Rosenfeld, *Comparing Constitutional Review by the European Court of Justice and the U.S. Supreme Court*, 4 INT’L J. CONST. L. 618, 639 (2006) (describing a 5–4 United States Supreme Court decision as “a binding opinion without seeming authoritarian” and providing illustrations).

299. RANDY J. KOZEL, *SETTLED VERSUS RIGHT: A THEORY OF PRECEDENT* (2017).

300. *Id.* at 23–24.

the legal system will spread its cost across many cases.³⁰¹ On the other hand, adherence to precedent protects stability and people's expectations. From that perspective, the whole point of a precedent is to stand despite being wrong.³⁰²

Choosing between the settled and the right is not easy³⁰³ and epistemology offers no guidance on how to make such tradeoffs. Epistemology, however, both can and should play a pivotal role in identifying the very need to reconsider a precedent. When a precedent alludes to the factual correctness of the meaning it ascribes to a legal rule, this allusion becomes a proper subject of the epistemological inquiry. This inquiry must utilize all epistemic indicators of the truth. Disagreement among members of the same court as to what the legal rule actually means is among those indicators.

CONCLUSION

Mahatma Gandhi famously observed that “[h]onest disagreement is often a good sign of progress.”³⁰⁴ Disagreements may indeed improve people's decisions, but this can only happen when people give their dissenters the epistemic credit they deserve instead of simply “agreeing to disagree.” When a person considers all available information, makes a factual finding, and then hears from an equally informed and honest individual that, according to her judgment, the facts are different, the person will do well to scale down his level of confidence in the finding. From an epistemological standpoint, the person cannot rationally remain as confident about that finding as he initially was. Our legal system disregards this epistemological mandate when it validates as unanimous jury verdicts that show no alignment between reasons and decisions, when it authorizes appellate courts to determine by a simple majority that a violation of the accused's constitutional trial right was harmless beyond a reasonable doubt, and when it accords the status of an unreservedly binding precedent to a 5–4 decision of the United States Supreme Court. By fixing these distortions, our system will improve its functioning across multiple areas of the law.

301. See RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* § 21.2 at 762 (9th ed. 2014) (observing that precedents generate economies of scale by reducing the cost of decisions across the board).

302. *Id.*

303. KOZEL, *supra* note 299, at 3 (explaining a choice between keeping and overturning bad precedent as a complex tradeoff).

304. Stuart Brock, *Is Philosophy Progressing Fast Enough?*, in *PHILOSOPHY'S FUTURE: THE PROBLEM OF PHILOSOPHICAL PROGRESS* 119 (Russell Blackford & Damien Broderick eds., 2017) (citing Gandhi's observation).

When truth is important and the cost of error is high, law and epistemology should work in tandem.