Explanations and the Preponderance Standard: Still Kicking Rocks with Dr. Johnson

Ronald J. Allen* & Michael S. Pardo**

We both were friends with and deep admirers of Craig Callen. One of us (Allen) knew Craig from the beginning, as it were, and co-authored a number of articles with him.¹ For the other (Pardo), Craig was not only a friend but also a mentor. He was a wonderful person, always cheerful even in the face of tragic adversity, humble and understated in his personal interactions, and an acute analyst in his scholarship, a scholarship that all too tragically was cut short.

Craig’s early paper on the limits of Bayesian inference² was pathbreaking, and deeply affected the work that we both do today. He was an early cheerleader and critic of the precursors to the relative plausibility theory,³ and at a very early date he identified the issue that this present manuscript develops into a full-length treatment,⁴ which is the problem of evidentiary thresholds. He was right to focus attention on this issue, as he also did on arguments and language in our work that were either in need of correction or refinement.

We thank Michael Risinger for unearthing this work-in-progress, which to a considerable extent is an elaboration on his brief comment on one of our early articles, Kicking Rocks with Dr. Johnson, and we are grateful to once

---

* John Henry Wigmore Professor, Northwestern University; President, International Association of Evidence and Forensic Science; Fellow, The Forensic Science Institute, China University of Political Science and Law.
** Henry Upson Sims Professor of Law, University of Alabama School of Law.
again have the opportunity to engage with Craig’s thoughts. It is unfortunate that his paper, which was written approximately ten years ago, could not have been written today with the benefits of knowing the developments over the last decade. Not because those developments would have necessarily changed his mind on any of the issues he is addressing, but rather because we regret the loss of his incisive commentary on the present state of thought on the relevant issues. As it stands, the Article is certainly right to focus on the threshold issue, but as we will briefly show, it does not address the present state of the literature. However, it is a very useful vehicle to elaborate on certain aspects of the relative plausibility theory to show how the best understanding of it at least responds to if not completely resolves the complex set of issues that Craig raises. It is in that spirit, with deep appreciation for his once more having forced us to think hard about difficult issues, and deep regret for not being able to get his reactions to our thoughts, that we present this comment.

Our theory of juridical proof explains the process of proof in terms of the relative plausibility of competing explanations. The theory is the primary competitor to more robustly probabilistic explanations that conceive of standards of proof as probabilistic thresholds (for example, that the preponderance standards means proof beyond 0.5, with higher standards requiring higher thresholds). The explanatory account shares the same ends or goals as probabilistic approaches, which have to do with various policy judgments about the likelihood of disputed facts and allocating the risk of error between the parties. According to the explanatory account, the law implements these policies through a process in which fact-finders evaluate the relative plausibility of explanations, rather than by trying to attach


In the civil context, under the preponderance standard, these policies include the accuracy of outcomes and treating the parties equally with regard to the risk of error. See Grogan v. Garner, 498 U.S. 279, 286 (1991); Herman & Maclean v. Huddleston, 459 U.S. 375, 391 (1983).
numbers to beliefs (as under most probabilistic accounts). The two primary differences between our account and the more conventional probabilistic accounts are, first, the criteria that are central to the fact-finding process (explanatory vs. probabilistic), and, second, whether the proof process is characterized as comparative or not. Unlike the conventional probabilistic accounts, the explanatory account is inherently comparative—whether an explanation satisfies the standard will depend on the strength of the possible explanations supporting each side.8 Under the “preponderance of the evidence” standard, fact-finders determine whether the best of the available explanations favors the plaintiff or the defendant.9 The best available explanation will favor the plaintiff if it includes all of the legal elements of the plaintiff’s claim; it will favor the defendant when it fails to include one of more elements.10

Although, like us, Craig also rejects probabilistic approaches to standards of proof11, he challenges what he sees as the comparative aspect of our account. Focusing on the preponderance standard, he argues that relative plausibility has trouble explaining some aspects of how the standard operates (1) at trial and (2) in the contexts of summary judgment and judgments as a matter of law. In both contexts, his central point of criticism is the same: jurors and judges may reject a plaintiff’s explanation while simultaneously thinking that it is better than the defendant’s (which may be implausible or non-existent).12 For the reasons we clarify below, however, relative

---

8 In other words, under the explanatory account, the fundamental issue is whether X or Y is more plausible; under the probabilistic interpretation, the fundamental issue is whether X or not-X is more probable (with X and not-X summing to 1).
9 See, e.g., Anderson v. Griffin, 397 F.3d 515, 521-22 (7th Cir. 2005) (comparing explanations); Bammerlin v. Navistar Int’l Transp. Corp., 30 F.3d 898, 902 (7th Cir. 1994) (same); Yeschick v. Mineta, 675 F.3d 622, 627 (6th Cir. 2012) (same). In the context of summary judgment, the Supreme Court has likewise emphasized the relative plausibility of explanations. See Los Angeles v. Alameda Books, 535 U.S. 425, 437 (2002) (“Neither the Court of Appeals, nor respondents, nor the dissent provides any reason to question the city’s theory. In particular, they do not offer a competing theory, let alone data . . .”). Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 587 (1986). Higher standards of proof accordingly require higher explanatory thresholds; parties with the burden of proof must do more than offer a better explanation than the alternative(s). See Pardo & Allen, Juridical Proof, supra note 6; Pardo, supra note 6 (explaining the relationship between explanations and the “beyond a reasonable doubt” standard).
10 This assumes the plaintiff has the burden the proof; the analysis reverses for issues (such as affirmative defenses) in which the defendant has the burden of proof. An explanation will “include” an element if the element is a part of, or is entailed by, the explanation. For example, in a negligence case, the plaintiff’s explanation must include each of the elements of a negligence claim under the applicable substantive law; if the better explanation fails to include an element (e.g., causation), then the defendant will win.
11 Callen, supra note 5, at 1524–32 (summarizing “the reasons for skepticism about mathematical models”).
12 Callen, supra note 5, at 1523 (arguing that having a better explanation is a “necessary” but not “sufficient” requirement for warranting a verdict in the plaintiff’s favor). Callen,
plausibility accommodates the features that Craig discusses and explains how they fit into the process of proof. We focus first on decisions by fact-finders at trial and then discuss summary judgment and judgment as a matter of law.

At trial, relative plausibility explains the decision threshold in civil cases under the preponderance standard as whether the best of the available explanations favors the plaintiff or the defendant. Craig demurs, arguing that having a better explanation is necessary but not sufficient for the plaintiff to meet the burden of proof.13 He makes two points in support of this position. First, some jury instructions are not phrased in terms of comparisons, but rather appear to require an assessment of the plaintiff’s case and its negation.14 Second, jurors may employ a “default rule” and conclude that the plaintiff’s evidence and explanation are not “sufficiently comprehensive,” even though they may think the defendant’s alternative case is weaker.15 Craig interprets our theory to require a finding for the plaintiff in such cases, even though he thinks jurors may reasonably conclude that the plaintiff has not met the burden of proof.16

Relative plausibility, however, can account for both of these points. Regarding jury instructions, it important to first clarify that there is wide variation on jury instructions on the preponderance standard (and other standards): some appear to use non-comparative language, some explicitly use comparative language, and others are ambiguous.17 More importantly, as we have discussed, even when instructions use non-comparative language when discussing the standard of proof, (1) fact-finders have no choice but to consider alternatives when assessing the likelihood of disputed facts, and (2)

supra note 5 at 1520 (arguing that our theory “would require jurors to find in favor of the party with the burden of proof when the best explanation favored that party, even though the jurors considered that explanation (or the evidence that supported it) insufficient to warrant a verdict.”). Callen, supra note 5, at 1520 (arguing that the standard for summary judgment and judgment as a matter of law “permits the court to enter judgment against the non-moving party for insufficiency of evidence without considering evidence and explanations in favor of the moving party.”).
13 Callen, supra note 5, at 1523, 1549–50, 1564–68.
14 Callen, supra note 5, at 1519–20.
15 Callen, supra note 5, at 1549 (arguing that, in addition to being better than those that favor the defendant, the plaintiff’s explanation must also be “sufficiently comprehensive to overcome reluctance to abandon the default rule stemming from absence of evidence or doubts about the quality of explanations in favor of the burden-bearing party.”).
16 Callen, supra note 5, at 1564 (arguing that our theory is “in conflict” with research on reasoning “that suggests that decision makers may validly adhere to default rules (such as finding in favor of the party that does not bear the burden of persuasion) when evidence is too thin to justify a different decision.”).
several other aspects of the process encourage the development of alternatives.\(^\text{18}\) The process is inherently comparative regardless of what the instruction on the standard of proof says—a fact confirmed by the empirical evidence on jury behavior.\(^\text{19}\)

Craig appears to accept that the proof process is comparative\(^\text{20}\), but he then raises his second point: better explanations are necessary but not sufficient. Relative plausibility, however, has an answer here as well. Although it is certainly true that the proof process depends to a large extent on the parties to identify facts to prove or dispute, to gather and present evidence, and to formulate explanations of the evidence and events—and the legal system will largely defer to such choices\(^\text{21}\)—nothing in our account requires fact-finders to limit their decision-making choices to the parties’ explanations.\(^\text{22}\) Similarly, nothing in our account requires parties to identify specific explanations on which to rely.\(^\text{23}\) As a matter of fact, they will often do so,\(^\text{24}\) but they may also choose to present their cases in a variety of


\(^\text{20}\) Callen *supra* note 5, at 5 (“it is undoubtedly true that jurors, who are at least outwardly passive, often rely heavily on the parties’ gathering of evidence and formulation of theories, or explanations of the evidence. When jurors have no reason to question the adequacy of the evidence or of the hypotheses that the parties have constructed to explain the evidence, then it makes perfect sense for jurors to compare those hypotheses in the process of reaching their decision.”)

\(^\text{21}\) See, e.g., Carrillo v. Penn Nat’l Gaming, Inc., 172 F. Supp. 3d 1204, 1213 (D.N.M. 2016) (“Plaintiffs are, of course, the masters of their litigation strategy, and may pursue litigation as they choose.”); United States v. Hock Chee Koo, 770 F. Supp. 2d 1115, 1124 (D. Or. 2011) (“the government is the master of its evidence and may, ‘by deciding what [it] offers it to prove, . . . control what will be required to satisfy the authentication requirement.’”) (quoting WRIGHT & GOLD, FEDERAL PRACTICE AND PROCEDURE: EVIDENCE § 7104 (2000)).

\(^\text{22}\) This was first noted in Ronald J. Allen & Sarah A. Jehl, *Burdens of Persuasion in Civil Cases: Algorithms v. Explanations*, 2003 MICH. ST. L. REV. 893, 929 (2004) (“the actual practice of civil litigation encourages the parties to formulate alternative hypotheses, over which a choice is made (or from which a choice is fashioned)”; *id.* at 938 (“a story constructed in light of the parties [stories]”; *id.* at 938, n. 167 (“The possibility of fact finder creativity in determining what happened is not a problem for the relative plausibility theory, as what matters is story formation”).

\(^\text{23}\) Our account is distinct from the “story model” of juror decision-making. Pennington & Hastie, *supra* note 19. The latter is a psychological account of juror behavior and, unlike our account, it does not provide an account of standards of proof and other aspects of the proof process. For discussion of the differences between the accounts, see Michael S. Pardo, *The Nature and Purpose of Evidence Theory*, 66 VAND. L. REV. 547, 598–99 (2013).

\(^\text{24}\) See Reid Hastie, *What’s the Story?: Explanations and Narratives in Civil Jury Decisions*, in *CIVIL JURIES AND CIVIL JUSTICE: PSYCHOLOGICAL AND LEGAL PERSPECTIVES* 23, 31 (Brian H. Bornstein et al. eds., 2008) (“One observation, from years of study of stories at
alternative ways. In other words, as we have explained, the scope of “explanations” in our account is much broader than Craig’s interpretation appears to assume.25 Parties may sometimes proceed, or defend, by offering disjunctive explanations, general explanations, or in some cases by invoking all of the possibilities that may support them without identifying a specific alternative.26 Thus, in the extreme examples that Craig suggests (i.e., weak plaintiff cases with no defense alternatives), our account allows for decisions by jurors to reject all of the offered explanations. In such cases, jurors may formulate their own explanation of what they think most likely occurred, but they are not required to do that either. They may simply conclude “something else must have happened” or “we have no idea what happened” and find against the party with the burden of proof.27 On the other hand, even plaintiff cases and explanations that appear weak in the abstract may become considerably more plausible when compared with the alternative possibilities and, thus, fact-finders may accordingly find for plaintiffs in such cases.28 Relative plausibility accommodates each of these possibilities and the various points that Craig raises about proof at trial.

Craig also focuses on “sufficiency of evidence” in the context of summary judgments and judgments as a matter of law.29 The standard in each of these contexts is the same: whether, construing the evidence and drawing reasonable inferences in the plaintiff’s favor, a reasonable jury could find for the plaintiff by a preponderance of the evidence.30 Craig

25 See Michael S. Pardo, Group Agency and Legal Proof; Or, Why the Jury is an “It,” 56 WM. & MARY L. REV. 1793, 1839–51 (2015) (discussing different types of explanations); Pardo, supra note 23.

26 See Pardo, supra note 25.

27 Pardo & Allen, supra note 6, at 238 (“If the proffered explanations truly are equally bad . . . judgment will (and should) go against the party with the burden of persuasion.”). In some of the early papers first beginning the exploration of alternatives to probabilistic reasoning, Prof. Allen presented the nature of juridical proof as a choice between what the parties advanced. See Allen, supra note 6, at 409. But even at the early date it was recognized that a verdict could be for a defendant even when the defendant had presented no evidence “if the fact finder concludes that any story told by the defendant would be more plausible than the plaintiff’s.” See Allen, supra note 6, at 412.

28 See, e.g., Banmerlin, 30 F.3d at 902 (“[Plaintiff] proceeded by eliminating the alternatives . . . [Plaintiff] produced evidence that could lead a rational jury to conclude the hypothesis inconsistent with his favored theory, which in turn permits an inference that his hypothesis is true.”). See also Anderson, 397 F.3d at 521 (“[I]n any particular case all the alternatives are ruled out, we can be confident that the case presents one of those instances in which [a] rare event did occur.”)


30 See Celotex Corp. v. Catrett, 477 U.S. 317 (1986); Anderson v. Liberty Lobby, Inc.,
contends that our account has trouble explaining this standard because (1) defendants moving for summary judgment or judgment as a matter of law need not offer any counter evidence or alternative explanations, and (2) he interprets our account to require that defendants do so.\textsuperscript{31} As we have clarified in subsequent work, however, our account does not require defendants to provide either evidence or explanations, and relative plausibility explains the standard in a straightforward manner.\textsuperscript{32} To say that no reasonable jury could find for the plaintiff (by a preponderance) is to say that no reasonable jury, construing the evidence and drawing reasonable inferences in favor of the plaintiff, could find the plaintiff’s explanation to be the best available explanation.\textsuperscript{33} This may be the case because the plaintiff’s explanation is implausible (regardless of the contrary possibilities), or it may be the case that no reasonable jury could find for the plaintiff because, based on the plaintiff’s evidence, there is an obvious, alternative explanation that is just as good or better than the plaintiff’s.\textsuperscript{34} In neither case is the defendant required to proffer evidence, and courts may

\begin{footnotesize}
477 U.S. 242, 252 (1986) (explaining that summary judgment depends on whether “reasonable jurors could find by a preponderance of the evidence that the plaintiff is entitled to a verdict”); Reeves v. Sanderson Plumbing Prods., 530 U.S. 133, 150 (2000) (explaining that the standard for judgment as a matter of law “mirrors” the summary-judgment standard). This assumes that the plaintiff has the burden of proof on the issue and that the preponderance standard applies. When the defendant has the burden on the issue, then the issue is whether a reasonable jury could find for the defendant by a preponderance of the evidence. Parties with the burden may also move for summary judgment or judgment as a matter of law—in such cases, the standard is whether a reasonable jury must find for the moving party. Reeves, 530 U.S. at 150.

\textsuperscript{31} Callen, \textit{supra} note 5, at 44 (“If the standard of proof asked whether the plaintiff’s story was better than the defendant’s, then \textit{Celotex} would require the defendant to offer some affirmative evidence”). \textit{See also id.} at 40 (“Directed verdicts and summary judgments are two of the procedural means by which courts decide that a party’s evidence is simply not good enough”).

\textsuperscript{32} \textit{See} Michael S. Pardo, \textit{Pleadings, Proof, and Judgment: A Unified Theory of Civil Litigation}, 51 B.C. L. Rev. 1451 (2010) (discussing the standards for summary judgment and judgment as a matter of law in explanatory terms). And again even the early work on relative plausibility noted the creative role of the fact finder. \textit{See supra} notes 22, 27.

\textsuperscript{33} \textit{See} Pardo, \textit{supra} note 24, at 1484–85.

\textsuperscript{34} \textit{See} Matsushita, 475 U.S. at 587–88 (concluding the plaintiff’s evidence was insufficient to survive summary judgment because (1) the plaintiff’s theory was “implausible” and “made no economic sense,” and (2) plaintiff’s evidence was more likely explained by independent conduct (which would not give rise to liability)). \textit{See also} Eastman Kodak Co. v. Image Tech. Servs., 504 U.S. 451, 468–69 (1992). Similar considerations apply in the pleading context. \textit{See} Bell Atl. Corp. v. Twombly, 550 U.S. 544, 567–68 (2007) (concluding the plaintiff’s explanation was not plausible because “here we have an obvious alternative explanation”); Ashcroft v. Iqbal, 556 U.S. 662, 681 (2009) (concluding that the plaintiff’s explanation was not plausible “given more likely explanations” including an “obvious alternative”). \textit{See also} Pardo, \textit{supra} note 31, at 1483–84, Ronald J. Allen & Alan E. Guy, \textit{Conley as a Special Case of Twombly and Iqbal: Exploring the Intersection of Evidence and Procedure and the Nature of Rules}, 115 Penn St. L. Rev. 1 (2010).
\end{footnotesize}
consider alternative explanations whether or not defendants advance them.

The two employment-discrimination cases that Craig discusses, *St. Mary’s* and *Reeves*, illustrate the points we have made above. Rather than presenting counterexamples, they in fact fit with, and are explained by, relative plausibility. These cases provide excellent examples because they each involve both fact-finding at trial and motions for judgments as a matter of law (one by the plaintiff and one by the defendant).36

In *St. Mary’s*, the plaintiff alleged that he was discharged from his job as a correctional officer because of his race.37 At trial, the plaintiff established a prima facie case of discrimination, and then the defendant offered an alternative, non-discriminatory reason for firing the plaintiff: rules violations.38 During a bench trial, the court concluded that the defendant’s stated reason for firing the plaintiff was not the real reason, but nevertheless found that the plaintiff failed to prove by a preponderance of the evidence that the plaintiff was discharged because of his race.39 The plaintiff argued before the United States Supreme Court that when the fact-finder rejects the defendant’s stated explanation for its actions (as was the case here), the plaintiff is entitled to a judgment as a matter of law. The Court disagreed, holding that a prima facie case of discrimination plus rejecting the defendant’s explanation might “permit” a reasonable fact-finder to find for the plaintiff, but this result is not mandated as a matter of law.40 In other words, it is also possible, based on the specific facts and evidence, for a reasonable jury to reject the defendant’s explanation and also conclude that the plaintiff has not proven discrimination by a preponderance of the evidence. This result and the analysis fit perfectly with the explanatory structure of relative plausibility. In explanatory terms, a plaintiff is entitled to a judgment as a matter of law (or summary judgment) only when a reasonable jury must find the plaintiff’s explanation to be better than those that favor the defendant. Such a result was not mandated in *St. Mary’s* because a reasonable fact-finder could conclude that the defendant’s explanation is false, and yet, the plaintiff’s explanation was not better than those that favor the defendant, such as discharge for a reason other than race or as was the case in *St. Mary’s*, rules violations.41 Fact-finders are free to

---

36 These cases are discussed in more detail in Pardo, supra note 32, at 1505–08.
37 509 U.S. at 504–05.
38 The defendant conceded that the plaintiff had established a prima facie case under the framework established in *McDonnell Douglas Corp. v. Green*, 411 U.S. 792, 800–07 (1973). *St. Mary’s*, 509 U.S. at 506.
39 Id. at 508.
40 Id. at 511.
41 See id. at 509–11.
reject the explanations offered by both sides, and that appears to be what the fact-finder did in this case.42

Similar considerations apply to Reeves. The plaintiff alleged that he was discharged from his job as a supervisor at a manufacturing plant because of his age.43 At trial, a jury returned a verdict for the plaintiff.44 The defendant argued that it was entitled to judgment as a matter of law because the plaintiff’s prima facie case, plus evidence discrediting the defendant’s alternative explanation, was an insufficient basis for a reasonable jury to find discrimination by a preponderance of the evidence.45 The United States Supreme Court rejected the defendant’s argument, because, as the Court pointed out, it will always depend on the details of the case. The evidence sufficient to establish a prima facie case may, in fact, be quite persuasive, even if only put initially to this preliminary use, and when coupled with discrediting the defendant’s explanation, the entire evidentiary package could easily lead to a reasonable conclusion of liability.46 As with St. Mary’s, the result and the analysis fit with relative plausibility: in accepting the plaintiff’s prima facie case and rejecting the defendant’s explanation, a reasonable jury could find age to be the best available explanation for the discharge.

To end where we began, we are indebted to Craig Callen and his memory in more ways than we can articulate. Were he still with us, he would undoubtedly be now preparing to explain, once again, where we have erred, but, unlike most of us, without a hint of exasperation as to why he had not been fully understood. He would just patiently try again to make his points clear, and indeed would probably not only suggest but believe (wrongly as it usually turned out) that the fault lie with him rather than his interlocutors. We are also indebted to Michael Risinger for resurrecting Craig’s manuscript. It is hard to imagine a more fitting way to bring to a close a symposium dedicated to the achievements of one important scholar than by reminding us of those of another.

---

42 As Callen acknowledges. See Callen, supra note 5, at 43 (“St. Mary’s seems to be a good example of a case in which a fact finder worked out a story on his own”).

43 St. Mary’s, 530 U.S. at 137–38.

44 Id. at 139.

45 Id. at 137.

46 Id. at 151–53.