Improving the Presentation of Expert Testimony to the Trier of Fact: An Epistemological Insight in Search of an Evidentiary Theory

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"Education is the premise of progress . . . ."

-Kofi Annan

The use of expert testimony at trials is not only widespread; its use also appears to be increasing. In a Rand Corporation study of California trials in courts of general jurisdiction, the researchers found that experts appeared in 86% of the trials; and on average, there were 3.3 experts per trial.[1] A more recent study reported that the average has risen to 4.31 experts per trial.[2] One commentator has asserted that in the United States, trial by jury is evolving into trial by expert.[3] That assertion is hyperbole, but it is undeniable that the quality of expert testimony is now a major determinant of the quality of the outcomes at American trials.

Although expert testimony has become commonplace at modern American trials, it has long been recognized that the introduction of such testimony is problematic. In a classic 1901 law review article, no less an authority than Judge Learned Hand identified the essential dilemma.[4] On the one hand, the law welcomes expert testimony because, by virtue of education, training, or experience, experts possess knowledge or skills that enable them to draw inferences either totally beyond the competence of lay jurors or barely within the jurors' competence.[5] Given their background, experts have

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1. Samuel R. Gross, *Expert Evidence*, 1991 WIS. L. REV. 1113, 1118–19 (1991).

2. RONALD J. ALLEN, RICHARD B. KUHNS & ELEANOR SWIFT, EVIDENCE: TEXT, PROBLEMS AND CASES 649 (5th ed. 2011).

3. William T. Pizzi, *Expert Testimony in the US*, 145 NEW L.J. 82 (1995).

4. Learned Hand, *Historical and Practical Considerations Regarding Expert Testimony*, 15 HARV. L. REV. 40 (1901), cited in Kumho Tire Co. v. Carmichael, 526 U.S. 137, 148–49 (1999).

5. *See* FED. R. EVID. 702.

a unique contribution to make. On the other hand, the courts fear that precisely because the expert possesses an ability that lay jurors lack, it will be difficult for lay jurors to properly evaluate such testimony. That fear has played a major role in shaping the law of expert testimony in the United States. Of course, the conventional wisdom is that the common-law courts formulated the exclusionary rules such as hearsay and best evidence because the courts doubted the capacity of lay jurors to critically evaluate certain kinds of testimony such as hearsay. At the end of the nineteenth century, one of the leading treatise writers, J.B. Thayer, famously remarked that the exclusionary rules are "the child of the jury system."[6]

However, the concern about lay jurors' limited competence is probably closest to the surface in the jurisprudence on expert testimony. Until the early 1980s, the *Frye* test was the traditional standard for admitting scientific testimony in the United States.[7] According to that test, in order to introduce an expert's opinion, the proponent had to persuade the trial judge that the expert based his or her opinion on a scientific theory or technique that had gained general acceptance in the relevant expert circles.[8] The principal rationale for the *Frye* test was the assumption that expert testimony can overawe lay jurors and that consequently, it is unsafe to expose jurors to novel methodologies to which they may ascribe undue weight.[9] It is true that in 1993 in its celebrated *Daubert* decision,[10] the Supreme Court abandoned the *Frye* test; as a matter of statutory construction, the Court concluded that the test had not survived the enactment of the Federal Rules of Evidence in 1975. The *Daubert* Court announced a new validation/reliability test. Under that test, before submitting an expert's opinion to the jury, the proponent must present sufficient empirical data and reasoning to convince the trial judge that the expert's methodology represents admissible, reliable "scientific . . . knowledge" within the intendment of that expression in Federal Rule of Evidence 702. However, even in *Daubert* the Court approvingly quoted Judge Jack Weinstein's warning that lay jurors can find it difficult to assess the probative value of expert testimony.[11]

The increased use of expert testimony has understandably intensified the underlying tension in the law of expert testimony. If lay jurors often

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6. JAMES BRADLEY THAYER, A PRELIMINARY TREATISE ON EVIDENCE AT THE COMMON LAW 266 (1898).

7. PAUL C. GIANNELLI, EDWARD J. IMWINKELRIED, ANDREA ROTH & JANE CAMPBELL MORIARTY, SCIENTIFIC EVIDENCE 12–34 § 1.06 (5th ed. 2012).

8. *Id.*

9. Edward J. Imwinkelried, *The Standard for Admitting Scientific Evidence: A Critique from the Perspective of Juror Psychology*, 28 VILL. L. REV. 554 (1983).

10. Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579 (1993).

11. *Id.* at 595.

overestimate the probativity of expert testimony and such testimony is admitted more frequently, there is a risk that there will be more wrongful verdicts driven by flawed expert testimony. In 2017, the tension reached the point that the Advisory Committee on the Federal Rules of Evidence could no longer ignore it.[12] The Committee therefore sponsored a symposium at Boston College School of Law on October 20, 2017.[13] In large part, the purpose of the symposium was to consider a proposed amendment to Federal Rule of Evidence 702.[14]

As presently worded, Rule 702 reads:

> Testimony by Expert Witnesses
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> A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:
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> (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
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> (b) the testimony is based on sufficient facts or data;
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> (c) the testimony is the product of reliable principles and methods; and
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> (d) the expert has reliably applied the principles and methods to the facts of the case.[15]

The amendment under consideration at the symposium would have converted the current Rule 702 into 702(a) and the current subparts (a)–(d) into subparts (1)–(4). The amendment would then add a new section (b), more than doubling the length of the Rule:

> (b) Forensic Expert Witnesses
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> If a witness is testifying on the basis of a forensic examination [conducted to determine whether an evidentiary sample is similar or identical to a source sample] [or: "testifying to a forensic

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12. Ronald J. Allen, *Fiddling While Rome Burns: The Story of the Federal Rules and Experts*, 86 FORDHAM L. REV. 1551 (2018).

13. *Id.*; Daniel J. Capra, *Foreword: Symposium on Forensic Expert Testimony,* Daubert*, and Rule 702*, 86 FORDHAM L. REV. 1459 (2018).

14. Memorandum from Daniel J. Capra, Reporter, Advisory Comm. on Evidence Rules, to Advisory Comm. on Evidence Rules, Symposium on Forensic Expert Testimony, *Daubert,* and Rule 702 (Oct. 1, 2017), *in* Advisory Comm. on Rules of Evidence 371, 380 (2017), http://www.uscourts.gov/sites/default/files/a3_0.pdf [https://perma.cc/VJ5T-RAG3].

15. FED. R. EVID. 702.

> identification"], the proponent must prove the following in addition to satisfying the requirements of Rule 702(a):
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> > (1) the witness's method is repeatable, reproducible, and accurate—as shown by empirical studies conducted under conditions appropriate to its intended use;
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> > (2) the witness is capable of applying the method reliably—as shown by adequate empirical demonstration of proficiency—and actually did so; and
> >
> > (3) the witness accurately states, on the basis of adequate empirical evidence, the probative value of [the meaning of] any similarity or match between the evidentiary sample and the source sample.[16]

One of the invited commentators at the symposium was Ronald J. Allen, the distinguished John Henry Wigmore Professor at Northwestern University, one of the most respected authorities on Evidence law.[17] In Professor Allen's view, the proposed amendment misses the mark; although the amendment would tighten the standard for admitting expert testimony, the amendment does not address the other half of the problem, which Professor Allen deems equally important. In Professor Allen's mind, the weakness in the proposed amendment is that the amendment does not ensure that the proponent sufficiently educates the jury to ensure that they can make a rational decision about the weight of the expert's opinion.[18] The centerpiece of Professor Allen's position was an epistemological insight: If we want the jurors to rationally resolve the dispute submitted to them, they must receive sufficient information to serve as "intelligent decision makers."[19] Merely submitting the expert's bottom line opinion to the jury falls short of providing them with the requisite information; doing so invites the jury to defer to the expert simply because he or she is an expert.[20] Professor Allen commended *Daubert* for helping to ensure that the proponent educates the trial judge to enable him or her to rationally determine whether the expert's methodology has been validated as reliable expert "knowledge."[21] However, he faulted both *Daubert*—and the proposed amendment—for not going far enough: "*Daubert* took a good first step in essentially requiring the trial judge to become sufficiently educated about a proposed testimony to judge it

16. Capra, *supra* note 14, at 380.
17. *See* Allen, *supra* note 12.
18. *Id.* at 1553.
19. *Id.* at 1552.
20. *Id.* at 1152–53.
21. *Id.* at 1553.

rationally. However, it did not take the equally critical second step of requiring its presentation to the fact finder in the same fashion . . . ."[22]

In the past, the commentators and courts have focused almost exclusively on the evidence submitted to the judge ruling on admissibility and largely neglected the question of the manner in which the expert's testimony is presented to the jury. Professor Allen opposed the proposed amendment and urged the adoption of a different amendment: "Expert testimony must be presented [to the trier of fact] in a comprehensible manner."[23]

The thesis of this short article is that although Professor Allen's epistemological insight is both valid and important, there is no need to amend the Federal Rules of Evidence to enable trial judges to pressure the proponents of expert testimony to educate *both* the trial judge passing on the admissibility of the testimony *and* the trial jurors determining the weight of such testimony. The first part of this article discusses Professor Allen's insight about the need to structure the Evidence law governing expert testimony to require the education of both the trial judge and the jurors. As Part I points out, Professor Allen had earlier contributed the fundamental insight that expert testimony law should promote education rather than passive deference. At the Boston College symposium, he deepened that insight by elaborating that the educational mandate should apply not only to the trial judge but also to the jurors. The second part of the article demonstrates that even without the benefit of any amendment to the Federal Rules of Evidence, trial judges can embrace Professor Allen's insight and, in effect, require the education of the jurors. The second part identifies the current Federal Rules of Evidence provisions that grant the trial judge the tools needed to impose that requirement in an appropriate case.

I. PROFESSOR ALLEN'S EPISTEMOLOGICAL INSIGHT

A. The First Insight: Education Rather than Deference

Although the title of this section refers to Professor Allen's insight in the singular, in truth two of his insights are pertinent here. In 1993—the same year the Supreme Court decided *Daubert*—Professor Allen coauthored an oft-cited article entitled *The Common Law Theory of Experts: Deference or Education?*[24] Professor Allen discerned that the traditional *Frye* general

22. *Id.* (footnote omitted).

23. *Id.* at 1556.

24. Ronald J. Allen & Joseph S. Miller, *The Common Law Theory of Experts: Deference or Education?*, 87 NW. U. L. REV. 1131 (1993).

acceptance test called for judges to defer to the scientific community in deciding whether to admit expert testimony. In fact, many decisions applying *Frye* explicitly use the term, "deference."[25] The stated justification for the deference was that that approach delegated the admissibility decision to experts, "those most qualified to assess the general validity of a scientific method . . . ."[26]

Although Professor Allen understood the deference standard, he flatly rejected it. In his view, an essential aspiration of the jury trial system is that the jury will make a rational decision whether to believe and accept testimony submitted to the jury.[27] If the jury is to do so, the jury must comprehend[28] and understand[29] the evidence. He argued that it betrays that aspiration to ask the jurors as decision makers to simply defer to the expert's opinion and accept it at face value. The proponent of expert testimony must shoulder a pedagogical responsibility.[30] Professor Allen acknowledges that some claim that jurors lack the cognitive capacity to understand expert reasoning.[31] However, he dismisses that claim as "false."[32] He adamantly repudiates "the disparaging view" that "treat[s] juries like children . . . ."[33] The available empirical studies lend considerable support to Professor Allen's position[34] and suggest that at the very least lay jurors are educable.

In several passages in the *Daubert* line of authority, the Supreme Court seemingly embraced Professor Allen's aspirational statement. Early in the seminal *Daubert* decision itself,[35] the Court addressed the epistemological

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25. *E.g.*, Grady v. Frito-Lay, Inc., 839 A.2d 1038, 1045 (Pa. 2003); State v. Copeland, 922 P.2d 1304, 1314 (Wash. 1996).

26. United States v. Addison, 498 F.2d 741, 743–44 (D.C. Cir. 1974); *see also* People v. Barbara, 255 N.W.2d 171, 194 (Mich. 1977).

27. Allen, *supra* note 12, at 1552–53.

28. *Id.* at 1552.

29. *Id.* at 1553.

30. *Id.*

31. *Id.* at 1554.

32. *Id.*

33. *Id.*

34. Imwinkelried, *supra* note 9, at 567–68. In an amicus brief in the then pending *Kumho* case, Professor Neil Vidmar and a number of the other leading American legal psychologists surveyed the available empirical studies. They recognized that many commentators and courts have asserted that "juries fail to critically evaluate expert testimony [and] . . . are overawed by experts." However, their review of the empirical data led them to conclude that "[t]he heavy preponderance of data from more than a quarter century of empirical jury research points to the opposite view of jury behavior." Brief Amici Curiae of Neil Vidmar et al. in Support of Respondents at 25, Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1999) (No. 97-1709), 1998 WL 734434.

35. Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579 (1993).

question of the meaning of "knowledge" within the intendment of Rule 702.[36] The Court construed the reference to "knowledge" in Rule 702 as requiring that the proponent establish that the expert's methodology rests on reliable "knowledge," not mere "subjective belief or unsupported speculation."[37] In the two later opinions in the *Daubert* trilogy, *Joiner*[38] in 1997 and *Kumho*[39] in 1999, the Court was emphatic that as a matter of law, the proponent's foundation is inadequate and the expert's testimony is inadmissible if it amounts to nothing more than *ipse dixit*—pronouncing a bottom line opinion[40] and asking the decision maker to blindly accept the opinion. In those passages, like Professor Allen the Court comes down on the side of education rather than deference.

B. The Second Insight: Education of Both the Judge Passing on Admissibility and the Jury Determining Weight

To be sure, Professor Allen's first insight was important. Positing that insight, *Daubert* is clearly preferable to *Frye*. While *Frye* required the trial judge ruling on admissibility to defer to the general sentiment within the relevant scientific circles, *Daubert* challenged the proponent to present the judge with enough empirical data and reasoning to persuade the judge that by using the particular methodology the expert chose to employ, the expert could accurately draw the specific type of inference that he or she proposed testifying to.[41]

However, Professor Allen's second insight is equally important. Again, in essence, he argued that *Daubert* does not go far enough. Education must be a both/and proposition—education of both the judge passing on admissibility and the jury assessing the weight of the admitted testimony. As he observes, the primary focus of the *Daubert* opinion is the standard that the trial judge must apply to determine whether to admit the expert's opinion.[42] However, he quite correctly points out that the aspiration of rational dispute resolution

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36. *See* Edward J. Imwinkelried, *The Next Step After* Daubert*: Developing a Similarly Epistemological Approach to Ensuring the Reliability of Nonscientific Expert Testimony*, 15 CARDOZO L. REV. 2271, 2277 (1994).

37. *Daubert*, 509 U.S. at 589–90.

38. Gen. Elec., Co. v. Joiner, 522 U.S. 136, 146 (1997).

39. Kumho Tire Co. v. Carmichael, 526 U.S. 137, 157 (1999).

40. Rogers v. K2 Sports, LLC, 348 F. Supp. 3d 892, 897 (W.D. Wis. 2018); U.S. Sec. & Exch. Comm'n v. ITT Educ. Servs., Inc., 311 F. Supp. 3d 977, 996 (S.D. Ind. 2018).

41. Edward J. Imwinkelried, *The Best Insurance Against Miscarriages of Justice Caused by Junk Science: An Admissibility Test That Is Scientifically and Legally Sound*, 81 ALB. L. REV. 851, 853–57 (2017–2018) (presenting a synthesis of the *Daubert-Joiner-Kumho* line of authority).

42. *Allen*, *supra* note 12, at 1553.

requires the education of the jury as well as the trial judge. In his words, the "first step" is demanding that the proponent present the trial judge with enough information to permit the judge to make a rational decision whether the expert's methodology rests on sufficient validation to qualify as reliable "knowledge" under Rule 702.[43] However, in its opinion the *Daubert* Court stopped short of reaching "the equally critical second step of requiring its presentation to the fact finder in the same [comprehensible] fashion . . . ."[44]

If anything, Professor Allen has understated the significance of his insight. The education of the trier of fact is arguably even more important than the education of the trial judge. At a jury trial under either the Sixth or Seventh Amendment, the lay jury makes the final decision on the historical merits of the case; the jury returns the verdict which becomes the basis for the judgment entered by the judge. Although the litigants are unquestionably interested in the judge's admissibility rulings before and during trial, they are most intensely interested in the verdict and judgment entered at the end of the trial. The litigants are participants in an adversary process, and it is the verdict that determines which litigant has won and which has lost. The verdict—not the admissibility ruling—represents the final outcome of the adversary contest. That verdict will be driven by the jurors' evaluation of the weight of the admitted evidence. It is important that the judge comprehend the foundational testimony submitted on the admissibility decision; but from a systemic perspective, it is even more imperative that the jurors understand the testimony submitted to them to enable them to determine the verdict. The jurors' understanding of the testimony does not guarantee that they will reach the correct result on the merits, but at the very least it increases the probability of rational fact findings.

If it is essential to ensure the education of the jury presented with the expert testimony, the question naturally arises: Does the trial judge already possess the necessary power to require the proponent to educate the trier of fact? If not, the Federal Rules of Evidence should presumably be amended to grant the trial judge the requisite tools. As the Introduction noted, the occasion of Professor Allen's remarks was a symposium devoted to the consideration of a lengthy proposed amendment to Federal Rule of Evidence 702. In his remarks, Professor Allen criticized that proposal but also proposed an alternative amendment to Rule 702.[45] Part II now turns to the question of whether any amendment is necessary.

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43. *Id.*
44. *Id.*
45. *Id.* at 1555–56.

II. AN EVIDENTIARY THEORY FOR IMPLEMENTING PROFESSOR ALLEN'S EPISTEMOLOGICAL INSIGHT

Professor Allen has underscored the difference between the presentations to the judge ruling on admissibility and the presentation to the jury determining weight. Consider a hypothetical that is a stark example of the difference.

Initially, at a pretrial in limine hearing, the proponent makes a presentation to the trial judge to convince the judge to admit the expert's opinion. At the hearing, the proponent submits detailed foundational testimony about validation studies to qualify the expert's methodology under *Daubert*: the size of the data set in the studies; the composition of the data set; the test conditions; and the specific findings such as percentages of false positives and false negatives.[46] The proponent's submission sufficiently educates the judge to enable the judge to form a justified belief that the methodology constitutes a reliable methodology under Rule 702.

However, after making a thorough presentation to the judge at the pretrial hearing, the proponent decides to radically streamline the presentation for the jury. Rather than attempting to educate the jury, the proponent decides to stress the expert's impressive credentials and invite the jury to accept the expert's opinion as *ipse dixit*—it must be true because an eminently credentialed expert says so. The opponent objects on the ground that rather than educating the jury, the proponent is merely asking the jury to defer to the expert. The proponent responds that the judge cannot even entertain the objection; that is, since the judge has already ruled the expert's opinion admissible, the judge cannot force the proponent to go into detail for the jury. The proponent contends that if the judge were to do so, as a practical matter the judge would be reversing the ruling made earlier at the in limine hearing.

This state of the record poses two subissues. First, procedurally, having already ruled the opinion admissible, can the judge force the proponent to lay a more extensive foundation for the jury to enable the jury to make an informed decision whether to accept the opinion? Second, substantively, assuming that there is no procedural bar, what evidentiary doctrine or doctrines can the judge rely on as the source of authority to compel the proponent to go into more detail for the jury's benefit?

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46. RONALD L. CARLSON, EDWARD J. IMWINKELRIED, JULIE SEAMAN & ERICA BEECHER-MONAS, EVIDENCE: TEACHING MATERIALS FOR AN AGE OF SCIENCE AND STATUTES 273 (8th ed. 2018).

A. The Procedural Issue: Does the Pretrial In Limine Ruling that the Opinion Is Admissible Preclude the Trial Judge from Demanding that the Proponent Make a More Detailed Presentation to the Jury?

The proponent is arguing that after the favorable in limine ruling, there is a procedural bar to the relief requested by the opponent. However, that argument is unsound both formally and in principle.

In *Luce v. United States*,[47] the Supreme Court announced that although the Federal Rules of Evidence do not expressly authorize in limine motions, federal trial judges have the inherent authority to hear such motions. There are two situations in which in a formal sense, a pretrial ruling favoring the proponent certainly does not preclude the trial judge from demanding a detailed foundation in open court for the benefit of the jury. First, on its face the in limine order dealt with an objection other than the objection the opponent urges later at trial. For example, suppose that the wording of the order is limited to a Rule 702 objection to the opinion. If at trial the opponent objects on a different ground such as Rule 403, the in limine ruling does not preclude the trial judge from entertaining and ruling on the Rule 403 objection. Although the opponent must raise certain constitutional objections before trial under pain of waiver,[48] there is no comparable waiver rule for non-constitutional objections based on the Federal Rules of Evidence. Second, as the Advisory Committee Note accompanying the 2000 amendment to Rule 103 states, rather than announcing a definitive or final ruling at the in limine stage, the judge made a preliminary or tentative ruling.[49] The very nature of a preliminary ruling preserves the judge's right to change the ruling at trial.

However, assume arguendo that the judge makes a purportedly definitive or final ruling on the in limine motion. Even on that assumption, the judge may reverse or modify the ruling at trial. The *Luce* Court stated that "[i]ndeed, even if nothing unexpected happens at trial, the district judge is free, in the exercise of sound judicial discretion, to alter a previous *in limine* ruling."[50] Similarly, the 2000 Advisory Committee Note to Rule 103 explains that the trial court may "revisit[] its decision when the evidence is . . . offered" at

47. 469 U.S. 38, 41 n.4 (1984); United States v. Slatten, 310 F. Supp. 3d 141, 143 (D.D.C. 2018).

48. EDWARD J. IMWINKELRIED, PAUL C. GIANNELLI, FRANCIS A. GILLIGAN, FREDRIC I. LEDERER & LIESA RICHTER, COURTROOM CRIMINAL EVIDENCE § 127 (6th ed. 2016).

49. FED. R. EVID. 103 advisory committee's note to 2000 amendment.

50. *Luce*, 469 U.S. at 41–42.

trial.[51] Hence, even a seemingly definitive pretrial ruling does not bind the judge.[52] The judge may adjust his or her ruling "during the course of a trial."[53]

In our hypothetical, this formal result also happens to be the correct outcome as a matter of principle. It would be one matter if the proponent contemplated submitting to the jury the identical testimony that he or she had earlier presented to the trial judge at the in limine hearing. As the immediately preceding paragraph noted, as a formal matter even then the judge could change his or her ruling. However, it is especially appropriate to accord that power to the judge in the hypothetical. In the hypothetical, the presentations to the judge and the jury are similar in that they both include the expert's bottom line conclusion. However, in other respects they differ profoundly. The body of testimony the proponent submitted to the judge at the pretrial hearing differs fundamentally from the body of testimony the proponent intends presenting to the jury. Even if the judge has squarely ruled that the first body of testimony satisfies *Daubert* and Rule 702, it would be wrongminded to compel the judge to apply the same ruling to a markedly different corpus of testimony.[54] In short, in the hypothetical neither principle nor formal law erects a procedural bar to the trial judge's decision to insist that the proponent go into greater depth in order to educate the trier of fact. The judge is not really changing his or her earlier ruling for the simple reason that that ruling addressed a very different evidentiary presentation.

B. The Substantive Issue: Does Any Provision of the Current Federal Rules of Evidence Empower the Judge to Force the Proponent to Present the Jury with Enough Information to Enable the Jury to Make an Informed Determination of the Weight of the Expert's Opinion?

As the Introduction indicated, the thesis of this short article is that under the current provisions of the Federal Rules of Evidence, the trial judge has the tools needed to require the proponent to sufficiently educate jurors about

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51. FED. R. EVID. 103 advisory committee's note to 2000 amendment. *See also* Hernandez v. First Student, Inc., 249 Cal. Rptr. 3d 681, 693 (Cal. Ct. App. 2019) (an "in limine ruling is necessarily tentative because [the] trial court retains discretion to make a different ruling as the evidence unfolds").

52. United States v. Whittemore, 944 F. Supp. 2d 1003, 1006 (D. Nev. 2013), *aff'd*, 776 F.3d 1074 (9th Cir. 2015), *cert. denied*, 136 S. Ct. 89 (2015).

53. Empire Bucket, Inc. v. Contractors Cargo Co., 739 F.3d 1068, 1071 n.3 (7th Cir. 2004); *Whittemore*, 944 F. Supp. 2d at 1006.

54. Indeed, there is authority that "[t]he denial of a motion *in limine* to preclude [expert] evidence in no way eliminates the proponent's burden to lay a proper evidentiary foundation and otherwise demonstrate the admissibility of that evidence at trial." Jo v. JPMC Specialty Mortg., LLC, 369 F.Supp.3d 511, 516 (W.D.N.Y. 2019).

the weight of the admitted expert testimony. There are two existing F.R.E. provisions that could potentially serve as the source of the requisite judicial authority: Federal Rules of Evidence 702(a) and 403.

1. Federal Rule of Evidence 702(a)

It is conceivable that we have to look no farther than Rule 702 itself, the provision that was the subject of both proposed amendments discussed at the 2017 Boston College symposium. In pertinent part, Rule 702(a) states that the judge may admit the expert's testimony only if it "will help the trier of fact to understand the evidence or to determine a fact in issue . . . ."[55] Professor Allen argues that when the proponent presents the jury with only the expert's bottom line conclusion and asks for mere deference, the jury is likely to find the presentation "uninformative."[56] If so, the opponent could plausibly argue that Rule 702(a)'s helpfulness requirement bars the presentation. When the jury must decide how much weight, if any, to ascribe to the expert's opinion, the jury will find such a truncated presentation of little or no use or value. The judge could exclude the presentation under 702(a) but tell the proponent that the judge will admit a different presentation that is more helpful in the sense that it teaches the jury enough to intelligently decide the quantum of weight to assign to the opinion. The language of 702(a) is expansive enough to support that result.

However, it would be risky to rely on the helpfulness language in Rule 702(a) as the basis for compelling the proponent. A trial judge could not be confident that an appellate court would treat that language as a grant of adequate authority. The helpfulness language might be construed as a codification of the relevance requirement: Testimony is helpful if it is relevant. Some have proposed a relevancy approach to the standard for admitting expert testimony: Under that approach, if the substantive content of expert's opinion is relevant to a fact of consequence in the case, "qualifying the expert automatically qualifies" the expert's testimony.[57] At one time, the Wisconsin courts followed this approach.[58] In 2019, the Court

55. FED. R. EVID. 702.

56. Allen, *supra* note 12, at 1552.

57. GIANNELLI ET AL., *supra* note 7, at 35; Paul C. Giannelli, Daubert*: Interpreting the Federal Rules of Evidence*, 15 CARDOZO L. REV. 1999, 2009–14 (1994).

58. GIANNELLI ET AL., *supra* note 7, at 36 (citing State v. Peters, 534 N.W.2d 867, 873 (Wis. Ct. App. 1995)) ("Once the relevancy of the evidence is established and the witness is qualified as an expert, the reliability of the evidence is a weight and credibility issue for the fact finder and any reliability challenges must be made through cross-examination or by other means of impeachment.").

of Appeals for the Fifth Circuit observed that "the 'helpfulness threshold is low'" and then asserted that "it is principally . . . a matter of relevance."[59]

If the helpfulness requirement is treated as a mere restatement of the relevance requirement, the helpfulness language in Rule 702(a) cannot serve as a source of judicial authority to compel the proponent to educate the trier of fact. Federal Rule of Evidence 401(a) prescribes the standard for logical relevance; to be relevant, an item of evidence must have "[a] tendency to make a fact more or less probable than it would be without the evidence."[60] To satisfy this standard, an item of evidence need only affect the balance of probabilities of the existence of a fact of consequence.[61] For example, an item of evidence is relevant if it ever so slightly[62] increases or decreases the probability that the accused shot the victim. The original Advisory Committee Note to Rule 401 declares that "[a]s McCormick says, 'A brick is not a wall.'"[63] The lower courts have often remarked that this is a "very"[64] "low,"[65] "liberal"[66] threshold. It does not matter whether the item of evidence is weakly probative.[67] "Under the Rule 401 test, there is no such thing as "highly relevant" evidence or "marginally relevant" evidence.[68] Evidence is either relevant or it is not";[69] the item is relevant so long as it nudges the balance of probabilities up or down.

If the court were to narrowly interpret the helpfulness language in Rule 702(a) as a restatement of the relevance requirement, it would be difficult to bar the proponent's presentation even when the presentation called for deference rather than offering the jury genuine education. Assume, as in our hypothetical, that after obtaining a favorable in limine ruling, the proponent

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59. Puga v. RCX Solutions., Inc., 922 F.3d 285, 294 (5th Cir. 2019) (internal quotation marks omitted).

60. FED. R. EVID. 401.

61. IMWINKELRIED ET AL., *supra* note 48, at § 304, at 8–12.

62. United States v. Casares-Cardenas, 14 F.3d 1283, 1287 (8th Cir.), *cert. denied*, 513 U.S. 849 (1994).

63. FED. R. EVID. 401 advisory committee's note (citations omitted).

64. United States v. Litvak, 889 F.3d 56, 68 (2d Cir. 2018); United States v. Nason, 9 F.3d 155, 162 (1st Cir. 1993), *cert. denied*, 510 U.S. 1207 (1994).

65. United States v. Harry, 20 F. Supp. 3d 1196, 1221 (D.N.M. 2014).

66. United States v. Boswell, 772 F.3d 469, 475 (7th Cir. 2014), *cert. denied*, 575 U.S. 943 (2015); United States v. McCaffrey, 801 F. Supp. 2d 605, 618 (N.D. Ohio 2011); *see also* Clark v. Mississippi, 2019 WL 5566234, at *6 (Miss. Ct. Apps. 2019) ("[W]hen determining the admissibility of expert testimony, courts must . . . determine whether the expert . . . will assist the trier of fact in understanding or determining a fact in issue (relevance).").

67. *In re* Romeo C., 40 Cal. Rptr. 2d 85, 88 (Cal. Ct. App. 1995).

68. United States v. Foster, 986 F.2d 541, 545 (D.C. Cir. 1993).

69. *Id.*; *see also* United States v. Causey, 748 F.3d 310, 316 (7th Cir. 2014) (it is sufficient if the item of evidence merely "in some degree advance[s] the inquiry"), *cert. denied*, 139 S. Ct. 295 (2018).

was content to present the jury with only a description of the expert's extensive qualifications and the expert's bare bones opinion. The presentation is devoid of any information that would allow the jury to make an intelligent decision whether the expert's methodology was supported by enough validation to warrant a rational belief in its reliability. Nevertheless, if the content of the opinion has any bearing on a fact of consequence in the case, the opinion would be relevant. If a qualified expert expresses an opinion that a fact of consequence is more or less likely to be true, the proponent's presentation has nudged the balance of probabilities. If so, the presentation passes muster under Rule 401.

The wording of Rule 702(a) surely does not dictate the conclusion that Rule 702(a) incorporates the limited relevancy approach or that 702(a)'s helpfulness language is a mere restatement of Rule 401's relevance requirement. However, the relevancy approach has some plausibility; and if there is a firmer basis for finding that the judge has the authority to compel education, it would be wise to opt to rely on that basis rather than 702(a). Fortunately, there is a firmer basis, namely, Federal Rule of Evidence 403.

2. Federal Rule of Evidence 403

a. The Case for Applying Rule 403

Federal Rule of Evidence 403 reads:

> The court may exclude relevant evidence if its probative value is substantially outweighed by a danger of one or more of the following: undue prejudice, confusing the issues, misleading the jury, wasting time, or needlessly presenting cumulative evidence.[70]

Rule 403 empowers the judge to exclude otherwise admissible evidence in the judge's discretion when the judge concludes that by a wide margin, the specified probative dangers outstrip the probative worth of the evidence.[71] Significantly, the Rule expressly mentions the probative dangers of "undue prejudice" and "confusing the issues."[72]

Consider the danger of "confusing the issues." Professor Allen points out that in an extreme case, the presentation of the expert's opinion without explanatory support can strike the jury as "gibberish."[73] It is plausible that that risk will arise especially if the expert's opinion is couched in undefined,

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70. FED. R. EVID. 403.
71. IMWINKELRIED ET AL., *supra* note 48, at § 313, 3–22.
72. FED. R. EVID. 403.
73. Allen, *supra* note 12, at 1553 n. 4.

technical jargon. If so, Rule 403 would authorize the trial judge to exclude the expert's testimony.

Although extreme cases involving gibberish are conceivable, those cases will probably be rare. If the presentation strikes the judge as gibberish, the proponent ought to realize that a confused jury may react by simply dismissing the expert's testimony. Of course, the proponent could gamble that the jury will find the expert's credentials so extraordinary and the expert's demeanor so confident that the jury will nevertheless accept the expert's opinion; but it will be the rare trial attorney who is brazen enough to resort to that risky maneuver. Consequently, it is far more likely that the proponent will present the opinion clearly but without accompanying information enabling the jury to make an intelligent assessment of the weight of the opinion. In that situation, the judge will be hard pressed to justify the exclusion of the expert's testimony under the "confusing the issues" provision in Rule 403. Instead, to invoke Rule 403, the judge will have to be convinced that the proponent's presentation is "unfair[ly] prejudic[ial]" within the meaning of that expression in the Rule.

In the context of Rule 403, "unfair prejudice" has a technical meaning. The expression does not refer to evidence that is simply damaging to the opposing side; the term is not synonymous with "damaging."[74] The proponent has a right to prejudice the opposition's case in that sense.[75] That sort of unobjectionable prejudice naturally flows from the introduction of relevant, highly probative evidence.[76] In this setting, "unfair prejudice" denotes a substantial risk that the introduction of the evidence will tempt the jury to decide the case on an improper basis.[77] The great British utilitarian philosopher Jeremy Bentham called this problem the risk of "misdecision."[78] In *Old Chief v. United States*,[79] the Supreme Court alluded to the risk that the admission of "concededly [logically] relevant evidence" may "lure the factfinder" into returning a verdict on an improper basis. The Advisory Committee Note to Rule 403 states: "'Unfair prejudice' within its context

74. People v. Bolin, 956 P.2d 374, 391 (Cal. 1998), *cert. denied*, 526 U.S. 1006 (1999).

75. United States v. Guzman-Montanez, 756 F.3d 1, 7 (1st Cir. 2014); United States v. Houlihan, 92 F.3d 1271, 1297 (1st Cir. 1996), *cert. denied*, 519 U.S. 1118 (1997).

76. People v. Escobar, 55 Cal. Rptr. 2d 883, 896 (Cal. Ct. App. 1996).

77. United States v. Ramos, 852 F.3d 747, 755 (8th Cir. 2017).

78. 6 JEREMY BENTHAM, THE WORKS OF JEREMY BENTHAM 105–09 (John Bowring ed., 1962).

79. Old Chief v. United States, 519 U.S. 172, 180 (1997).

[here] means an undue tendency to suggest decision on an improper basis, commonly, though not necessarily, an emotional one."[80]

The courts tend to find prejudice in that technical sense in two situations. The first is the one expressly mentioned in the Advisory Committee's statement: The nature of the evidence is likely to generate powerful emotions that will tempt the jury to decide the case on an improper basis.[81] Gruesome photographs are a classic illustration.[82] By way of example, consider a color closeup of the rotting, decomposed parts of a deceased child's body. Even if the photograph has some probative value on a fact of consequence in a homicide prosecution, the jury may find the photograph so repulsive that it will be difficult for the jury to dispassionately evaluate the other testimony in the case.[83] Similarly, a marginally relevant photograph depicting a crucifix on the victim's body could intensely inflame the jury to the point that the jury's anger would impede rational deliberation.[84]

The second situation is a case in which the introduction of the item of evidence might prompt the jury to commit inferential error by overvaluing the testimony.[85] In this situation, in a broad sense the admission of the evidence would impair or prejudice the factfinding process. This species of prejudice is one of the principal rationales for the general character evidence prohibition codified in Federal Rules of Evidence 404–05. In its most famous pronouncement on the prohibition in *Michelson v. United States*, the Supreme Court voiced the fear that many lay jurors would find bad character evidence too probative and disregard weaknesses in the prosecution's proof of the defendant's commission of the specific crime charged.[86] There is a considerable body of empirical research validating that fear. It is true that

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80. FED. R. EVID. 403 advisory committee's note to 1972 proposed rules; United States *ex rel.* Laymon v. Bombardier Transp. (Holdings) USA, Inc., 656 F. Supp. 2d 540, 548 (W.D.Pa. 2009).

81. CARLSON ET AL., *supra* note 46, at 298–99.

82. Beagles v. State, 273 So.2d 796, 798–99 (Fla. Dist. Ct. App. 1973); State v. Lockett, 592 A.2d 617, 619–20 (N.J. Super. Ct. App. Div. 1991); Commonwealth v. Dankel, 301 A.2d 365, 367–68 (Pa. 1973); State v. Waitus, 77 S.E.2d 256, 263 (S.C. 1953).

83. Funk v. Commonwealth, 842 S.W.2d 476, 478–80 (Ky. 1992).

84. United States v. Sampson, 335 F. Supp. 2d 166, 183 (D. Mass. 2004).

85. CARLSON ET AL., *supra* note 46, at 299.

86. 335 U.S. 469, 475–76 (1948) ("[I]t is said to weigh too much with the jury and to . . . overpersuade them . . . ."); *see also* People v. Reyes, 247 Cal. Rptr. 3d 247, 256 (2019) ("'The reason for this rule is not that such evidence is never relevant; to the contrary, the evidence is excluded because it has too much probative value.' '"The natural and inevitable tendency" [of lay jurors] is to give excessive weight to the prior conduct and either allow it to bear too strongly on the present charge, or take the proof of it as justifying a conviction irrespective of guilt of the present charge.'" (quoting People v. Hendrix, 153 Cal. Rptr. 3d 740, 758 (2013)).

there are some skeptics.[87] However, the great weight of the empirical studies indicates that the general construct of character is a poor predictor of conduct on a specific occasion and that situational factors are more likely to be influential.[88]

It has long been recognized that like character evidence, expert testimony can be prejudicial in the sense that there is a substantial danger that the jury will ascribe undue weight to the testimony. The Introduction pointed out that a fear of that danger played a prominent role in the rationale for the traditional *Frye* general acceptance admissibility standard.[89] The Introduction also noted that even in *Daubert*, the Supreme Court approvingly quoted Judge Weinstein's observation that lay jurors may struggle to gauge the probative value of scientific testimony.[90]

That danger is acute in our hypothetical. Admittedly, in the hypothetical, the proponent is likely to go into ample detail about the validation studies at the stage of the in limine hearing to persuade the trial judge that the expert's methodology passes muster under *Daubert*. Since *Daubert* expressly requires the proponent to satisfy the preponderance standard,[91] the proponent will probably present testimony about the accuracy rates attained in the studies, including the percentages of false positives and false negatives. However, in the hypothetical, after prevailing at the in limine hearing, the proponent does precisely what Professor Allen condemns: the proponent gives the jury a bare-bones presentation which calls for their deference rather than providing the jury with enough information about the expert's methodology to enable the jury to make a rational appraisal of its weight. The proponent's presentation puts the jury in a position in which the jury is forced to speculate about the extent of the methodology's reliability. If the proponent's expert is

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87. *See, e.g.*, Susan Marlene Davies, *Evidence of Character to Prove Conduct: A Reassessment of Relevancy*, 27 CRIM. L. BULL. 504, 518 (1991); David J. Karp, *Evidence of Propensity and Probability in Sex Offense Cases and Other Cases*, 70 CHI.-KENT L. REV. 15 (1994).

88. *See, e.g.*, Randolph N. Jonakait, *Biased Evidence Rules: A Framework for Judicial Analysis and Reform*, 1992 UTAH L. REV. 67, 68, 77; Miguel Angel Mendez, *California's New Law on Character Evidence: Evidence Code Section 352 and the Impact of Recent Psychological Studies*, 31 UCLA L. REV. 1003 (1984); Roderick Munday, *Stepping Beyond the Bounds of Credibility: The Application of Section 1(f)(ii) of the Criminal Evidence Act 1898*, 1986 CRIM. L. REV. 511, 513–14 (U.K.); Lisa Eichhorn, Note, *Social Science Findings and the Jury's Ability to Disregard Evidence Under the Federal Rules of Evidence*, 52 LAW & CONTEMP. PROBS. 341, 347–48 (1989); *see also* Edward J. Imwinkelried, *Reshaping the "Grotesque" Doctrine of Character Evidence: The Reform Implications of the Most Recent Psychological Research*, 36 SW. U. L. REV. 741 (2008), *reprinted in* LAW AND JUSTICE: PSYCHOLOGY ROLE-PLAY 226 (Asifa Begum ed., 2010).

89 *See supra* note 9 and accompanying text.

90. *See supra* note 11 and accompanying text.

91. Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579, 592 n.10 (1993).

a charismatic witness with impressive credentials, the jury might err by wholeheartedly—and uncritically—embracing the expert's opinion; in those circumstances, the jury may be tempted to take the opinion at 100% face value although no expert opinion deserves such blind credence.[92] If the trial judge realistically concludes that the proponent's presentation creates that risk, Rule 403 authorizes the judge to intervene.

Although this risk can trigger the application of Rule 403, it is important to avoid overstating the impact of its applicability. The courts cannot look to Rule 403 as a source of authority for enunciating categorical rules. Rule 403 must be interpreted in the context of Rule 402. Rule 402 states that logically relevant evidence "is admissible" unless the trial judge can justify excluding it on the basis of the Constitution, a federal statute, a provision in the Federal Rules of Evidence, or a provision in other court rules adopted pursuant to statutory authority, such as the Federal Rules of Civil and Criminal Procedure.[93] Rule 402 makes no mention of case, common, or decisional law. The legislative intent was to deprive the courts of their common-law power to enunciate and enforce uncodified exclusionary rules of evidence. The Congress that enacted the Federal Rules was jealous of its prerogatives; it was the same Congress that had recently battled President Richard Nixon in federal court over claims of executive privilege.[94] Three years after the effective date of the Rules, Professor Edward Cleary, the Reporter for the Advisory Committee that drafted the Rules, wrote: "In principle, under the Federal Rules no common law of evidence remains."[95] On two occasions, the

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92. PRESIDENT'S COUNCIL OF ADVISORS ON SCI. & TECH., REPORT TO THE PRESIDENT: FORENSIC SCIENCE IN CRIMINAL COURTS: ENSURING SCIENTIFIC VALIDITY OF FEATURE-COMPARISON METHODS 4, 54 (2016) (noting that no forensic technique has a zero error rate; the report disapproves of claims of "zero," "vanishingly small," "essential zero," "negligible," "minimal," or "microscopic" error rates); *see also* Edward Imwinkelried, *The Importance of Forensic Metrology in Preventing Miscarriages of Justice: Intellectual Honesty About the Uncertainty of Measurement in Scientific Analysi*s, 7 J. MARSHALL L.J. 333, 340–41 (2014). Instrumental, "hardware" scientific techniques rely on measurement. The most fundamental tenet of metrology (the science of measurement) is that one can never be certain that a particular measurement has captured the true value of the measurand—no matter how carefully the measurement is conducted or how carefully the measuring instrument has been calibrated. *Id.* The best practice is to treat a single point value as an estimate and provide an arithmetic measure of the uncertainty, such as a confidence interval. *Id.*

93. FED. R. EVID. 402. As restyled in 2011, Rule 402 refers to "other rules prescribed by the Supreme Court." Rule 101(b)(5) defines that expression as meaning "a rule adopted by the Supreme Court under statutory authority." The Federal Rules of Civil and Criminal Procedure have been adopted pursuant to statutory authority. Common-law rules are not.

94. 1 EDWARD J. IMWINKELRIED, THE NEW WIGMORE: EVIDENTIARY PRIVILEGES § 4.2.2, at 251 (Richard D. Friedman ed., 3d ed. 2017).

95. Edward W. Cleary, *Preliminary Notes on Reading the Rules of Evidence*, 57 NEB. L. REV. 908, 915 (1978).

Supreme Court itself has approvingly quoted Professor Cleary's statement.[96] If the courts could use Rule 403 to resurrect their common-law power to formulate general exclusionary rules of evidence, Rule 403 would be at odds with Rule 402.[97] Rule 403 would directly conflict with Rule 402 because Rule 403 would reinstate the common-law power that Rule 402 was intended to abolish.[98] The only way to harmonize the two Rules is to constrain the judicial authority under Rule 403 to ad hoc, case-specific rulings, based on the particular probative value of and the specific probative dangers posed by a certain item of evidence. In short, the courts may not treat Rule 403 as a source of authority to make sweeping declarations or announce bright-line rules about the type of presentation that the proponent must submit to the trier of fact. Rather, the judge must evaluate the specific presentation proffered by the proponent and inquire whether it falls short of sufficiently educating the jury and only invites the jury to defer to the expert. Positing that understanding of the limited judicial authority under Rule 403, there is a strong case that in some cases the judge can justifiably rely on Rule 403 to compel the proponent to make a sufficiently detailed presentation to educate the jury.

b. The Counter-Arguments

The preceding paragraphs lay out the case for applying Rule 403 in our hypothetical. However, before closing, we must address some potential counter-arguments. The counter-arguments are based on the wording of Rule 403.

As previously stated, Rule 403 identifies "needlessly presenting cumulative evidence" as one of the probative dangers cognizable under the Rule. The proponent might argue that forcing the proponent to educate both the judge and the jury will pressure the proponent to present at least some of the testimony about the expert's methodology twice, thus amounting to the presentation of "cumulative evidence." However, that counter-argument is specious. To begin with, even if the same testimony is presented at both the in limine bearing and the trial, the presentation would not constitute "cumulative evidence." Common sense dictates that one item of evidence should be considered "cumulative" of another item only if both items of evidence are presented at the same phase of the litigation to the same decision

96. Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579, 587–88 (1993); United States v. Abel, 469 U.S. 45, 51–52 (1984).

97. *See* Edward J. Imwinkelried, *The Meaning of Probative Value and Prejudice in Federal Rule of Evidence 403: Can Rule 403 Be Used to Resurrect the Common Law of Evidence?*, 41 VAND. L. REV. 879, 883–84 (1988).

98. *Id.*

maker. Moreover, even if the court were willing to accept the proponent's strained interpretation of "cumulative," the argument would fail because of the adverb "needlessly." Professor Allen's epistemological insight is that both the judge ruling on admissibility and the jury determining weight have a legitimate need to be educated to rationally make their respective decisions. For both reasons, the reference to "needlessly presenting cumulative evidence" does not preclude the invocation of Rule 403 to pressure the proponent to educate the jury even after the proponent has prevailed at a pretrial in limine hearing under *Daubert* and Rule 702.

A second potential counter-argument, again grounded in the text of Rule 403, though, is more plausible. That counter-argument is that applying Rule 403 in our hypothetical will result in "wasting time." More specifically, it could be argued that as a practical matter, even after the proponent prevails at the in limine stage, this construction of Rule 403 will require the proponent to submit the identical, lengthy presentation to the jury. If so, this construction of Rule 403 will wastefully increase the total amount of time consumed by the trial proceedings. This counter-argument is more credible than the first. Yet, even this counter-argument has two fatal weaknesses.

To begin with, if the second presentation is truly needed to educate the jury, the additional time consumed will not have been "wast[ed]." The connotation of "wasting" is an unnecessary expenditure of time.[99] In that respect, "wasting" in Rule 403's reference to "wasting time" is akin to "needlessly" in the Rule's reference to "needlessly presenting cumulative evidence." Rather than being wasted, the time spent educating the jury is well spent; the information presented in that additional time helps the jury make a truly rational decision as to how much weight to attach to the expert's methodology and opinion.

Next, it is erroneous to assume that this construction of Rule 403 will always or even usually lead the proponent to present identical bodies of testimony at the in limine and trial stages. As we shall now see, even positing this construction of Rule 403, the presentation at trial is likely to be much shorter than the in limine foundation.

At the in limine stage, the Supreme Court's jurisprudence gives the proponent a powerful incentive to go far beyond presenting a foundation that barely satisfies Rule 702 and *Daubert.* In *Daubert,* the Court made several pertinent holdings:

- First, although the existence *vel non* of general acceptance of the expert's methodology is no longer dispositive, it remains a relevant

99. DICTIONARY.COM, https://www.dictionary.com/browse/waste (defining waste as "to . . . employ uselessly . . . ; [to] use to no avail or profit") [https://perma.cc/WBA4-978N].

factor in the trial judge's analysis.[100] If a methodology has been in circulation for a substantial period of time and managed to garner widespread acceptance, that is some circumstantial evidence of the reliability of the methodology; presumably, during that extended period of time, other experts have had the opportunity to review the underlying research and come away with the impression that the research is both adequate and methodologically sound.

- Second, another factor is the error rate for the methodology.[101]
- Third, the proponent must convince the trial judge of the reliability of the methodology by a preponderance of the evidence.[102]

The first holding will motivate the proponent to cite to several validation studies.[103] The second and third holdings can prompt the proponent to submit relatively detailed numerical testimony about the methodology's error rate such as percentages of false positives and negatives.

Two post-*Daubert* decisions intensify the pressure on the proponent not to be content with a minimal foundation at the admissibility stage. In 1997, the Supreme Court rendered its decision in *General Electric Co. v. Joiner*.[104] *Joiner* held that the scope of appellate review of a trial judge's *Daubert* ruling is the deferential standard of abuse of discretion.[105] The Court went to the length of stating that that standard governs even when the ruling is outcome determinative.[106] *Joiner* signals the proponent that if he or she does not prevail in the trial court, the chances of relief on appeal are slim. Any proponent familiar with *Joiner* realizes that he or she must do everything feasible at the trial court level to prevail there. In addition, in 2000 the Court handed down its decision in *Weisgram v. Marley Co*.[107] In *Weisgram*, based in part on the plaintiff's expert testimony, the trial judge denied judgment as

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100. *Daubert*, 509 U.S. at 594.

101. *Id.*

102. *Id.* at 592 n.10.

103. In its 2016 report, the President's Council of Advisors on Science and Technology (PCAST) took the position that in order to satisfactorily validate an expert methodology, the proponent must cite to multiple, independent studies. PRESIDENT'S COUNCIL OF ADVISORS ON SCI. & TECH., EXEC. OFFICE OF THE PRESIDENT, REPORT TO THE PRESIDENT: FORENSIC SCIENCE IN CRIMINAL COURTS: ENSURING SCIENTIFIC VALIDITY OF FEATURE-COMPARISON METHODS 48 (2016), https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensic_science_report_final.pdf [https://perma.cc/UP6W-WUX2]. *Daubert* does not go that far, and no lower courts have either. However, the PCAST report increases the pressure on the proponent to point to a number of studies verifying the accuracy of the expert's methodology.

104. 522 U.S. 136 (1997).

105. *Id.* at 139.

106. *Id.* at 143.

107. 528 U.S. 440 (2000).

a matter of law for the defendant.[108] On review, the appellate court held that the trial judge erred in admitting the expert testimony.[109] The court then entered judgment for the defendant.[110] On appeal to the Supreme Court, the plaintiff argued that at the very least the plaintiff was entitled to a new hearing at which the plaintiff could supplement the record with additional testimony—perhaps new expert evidence.[111] The Supreme Court rejected the argument. Reflecting back on its prior decisions, the Court commented that the *Daubert* line of authority has prescribed "exacting standards of reliability."[112] Together *Joiner* and *Weisgram* send the proponent the message that his or her only opportunity for victory may be in the trial court. In that light, the proponent has every reason to lay the most complete and persuasive admissibility foundation possible. That will often be a lengthy, detailed foundation.

Assume that the proponent lays such a foundation at the in limine hearing and prevails. Now contrast the proponent's legal and tactical position at the trial stage. And suppose further that the trial judge has made it clear that at the trial stage, the proponent will need to educate the jury and not merely seek deference. Even then the proponent will not need to duplicate the presentation that he or she made at the in limine hearing. Expert testimony is a two-edged sword that can impress but also confuse.[113] For that reason, the received orthodoxy is that during an expert's direct examination at the trial on the merits, the proponent should shorten the direct examination by presenting only "the tip of the iceberg" of the empirical research validating the expert's methodology.[114] Thus, while at the in limine stage the proponent may want to expressly mention studies conducted at the Mayo Clinic and the Harvard and Yale medical schools, on direct examination in the merits phase the proponent might be content to have the expert refer merely to "all the studies at leading institutions." By the same token, while at the in limine phase the proponent might invite the expert to cite numerical false positive and negative scores, at the trial on the merits the proponent might be satisfied with the expert's testimony that "in the overwhelming majority of cases," the use of the methodology yields a correct conclusion. Even without duplicating the more elaborate testimony presented at the pretrial *Daubert* hearing, such

108. *Id.* at 445.
109. *Id.*
110. *Id.*
111. *See id.* at 455–56.
112. *Id.* at 455.
113. RONALD L. CARLSON & EDWARD J. IMWINKELRIED, DYNAMICS OF TRIAL PRACTICE: PROBLEMS AND MATERIALS § 11.5(B), at 385–86 (5th ed. 2017).
114. *Id.* at 386.

testimony would give the jury a rational basis for trusting the expert's methodology and gauging its weight.

Several other factors also undermine the assumption that the adoption of the proposed construction of Rule 403 will impel the proponent to duplicate the lengthy foundation presented at the in limine hearing. To begin with, if the opponent loses the in limine hearing, the proponent may reasonably anticipate that the expert's methodology will not be the central point of attack at trial. If the trial judge has ruled definitely that the testimony is admissible, under Rule 103(b) the opponent need not renew the objection at trial to preserve the issue for appeal;[115] and the opponent may not want to run the risk that objecting again in open court—and losing again—will damage his or her credibility in the eyes of the jury.[116] If the proponent foresees that at trial the opponent is likely to shift the focus of attack to another issue in the case, it makes little sense for the proponent to go into great detail on an issue that the opponent will not be seriously disputing in front of the jury.

Alternatively, assume that the opponent decides to continue to press the attack on the expert's methodology during trial. Even then during the expert's direct examination the proponent may not have to present in depth testimony about the validation of the expert's methodology. After all, even if the opponent attacks the expert's methodology during cross-examination, the proponent will have an opportunity to repair the damage on redirect examination.[117] For that matter, during the rebuttal[118] or surrebuttal[119] stage, the trial judge might permit the proponent to call other experts to corroborate the initial expert's testimony about the reliability of the methodology. For all these reasons, it is fallacious to assume that the proposed interpretation of Rule 403 will prolong trial proceedings by compelling the proponent to present as lengthy and detailed testimony during trial as he or she submits to the judge at the in limine *Daubert* hearing.

III. CONCLUSION

As the Introduction noted, the symposium on the proposed amendment to Rule 702 was held in 2017. That symposium was the occasion for Professor Allen's remarks, in which he described his important epistemological insight

115. FED. R. EVID. 103(b) ("Once the court rules definitively on the record—either before or at trial—a party need not renew an objection or offer of proof to preserve a claim of error for appeal.").

116. CARLSON & IMWINKELRIED, *supra* note 113, § 6.3(C), at 192–93.

117. CARLSON ET AL., *supra* note 46, at 72.

118. *See id.* at 50.

119. *Id.*

into the presentation of expert testimony. By the time this article appears in print, almost three years will have elapsed since that symposium. To date, the Advisory Committee has taken no action to formally propose an amendment to Rule 702. That inaction is understandable. At the symposium, there was some criticism of the guidance set out in Uniform Language for Testimony and Reports, a document which the Department of Justice issued to its forensic experts. There is a distinct possibility that the Department of Justice would strongly oppose any Rule 702 amendment inconsistent with the Uniform Language document.[120] The position taken by the Department of Justice on any proposed amendments to the Federal Rules carries a good deal of weight.[121] The Advisory Committee has yet to make a final decision; but there is a good possibility that when the dust finally settles, the Committee will decide against proposing any amendment.[122] There may not be a proposal, much less an amendment.

Especially if the Committee chooses that course of action, it may be easy for the public and the academy to forget about the 2017 symposium. However, even if nothing comes of the symposium by way of a formal proposal to amend Rule 702, it would be a huge mistake to forget the insight that Professor Allen shared at the symposium.[123] He is surely right that just as the trial judge should be educated about the expert's methodology at a pretrial in limine hearing, the jury needs to be educated on that topic during the trial on the merits. As Professor Allen eloquently explained in his remarks, we aspire that trials will be rational dispute resolution mechanisms.[124] If both the judge and the jury are to rationally perform their assigned decisional tasks, they need to be educated; they cannot discharge their assigned responsibilities when the proponent is permitted to simply solicit deference.

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120. Memorandum from Daniel J. Capra, Reporter, Advisory Comm. on Evidence Rules, to Advisory Comm. on Evidence Rules (Apr. 1, 2019), *in* Advisory Committee on Rules of Evidence Spring 2019 Meeting Agenda 95, https://www.uscourts.gov/sites/default/files/2019-05-evidence-agenda-book.pdf [https://perma.cc/GC7J-299J] (concerning possible amendments to Rule 702).

121. *E.g.*, IMWINKELRIED, *supra* note 94, § 4.2.1, at 236 (describing the Justice Department's influence on the deliberations of the Advisory Committee over the proposed F.R.E. provisions on evidentiary privileges). Perhaps the best illustration of the Justice Department's "clout" is the history of the rape shield laws, FED. R. EVID. 413–15, that carve out exceptions to the character evidence prohibition in certain prosecutions and civil actions. The Justice Department proposed the rules, and Congress approved the rules despite the strong opposition of both the American Bar Association and the United States Judicial Conference. 1 EDWARD IMWINKELRIED, UNCHARGED MISCONDUCT EVIDENCE § 2:25, at 255–72 (2020 ed.).

122. *See* Susan Steinman, *Protecting Expert Evidence*, 56 TRIAL, Jan. 2020, at 54 (describing the ongoing discussions of the proposed amendments to Federal Rule of Evidence 702).

123. It could be especially easy to overlook the insight because Professor Allen's article is one of the shorter pieces in the symposium. The article is seven pages in length.

124. Allen, *supra* note 12.

On reflection, the irony is that although Professor Allen shared his insight at a symposium focused on amending the Federal Rules—and himself proposed an amendment—as we have seen, there is no need to amend the Rules to implement Professor Allen's insight. The Rules, possibly Rule 702(a) and surely Rule 403, already confer on the trial judge the power to exclude trial presentations in a given case that are either gibberish or largely uninformative about the expert's methodology. This article is essentially nothing more than an extended footnote to Professor Allen's article. The purpose of this article has been to call attention to Professor Allen's valuable epistemological insight and to propose an evidentiary theory to empower trial judges to capitalize on that insight. That insight is critical because the use of expert testimony at American trials is now so prevalent. "Education is the premise of progress . . . ."[125] If the state of the law of expert testimony is to progress and improve, we must ensure that the presentation of such testimony at trial is calculated to educate the jury as well as the judge. Since multiple experts now appear at the typical American trial in a court of general jurisdiction, to an important degree the quality of our justice depends on the ability of jurors and judges to make critical, *educated* evaluations of expert testimony.

125. Press Release, Secretary-General, 'If Information and Knowledge Are Central to Democracy, They Are Conditions for Development', Says Secretary-General, U.N. Press Release SG/SM/6268 (June 23, 1997), https://www.un.org/press/en/1997/19970623.sgsm6268.html [https://perma.cc/9PHL-VMCQ].