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## Defending Daubert: It's Time to Amend Federal Rule of Evidence 702

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## DEFENDING *DAUBERT*: IT'S TIME TO AMEND FEDERAL RULE OF EVIDENCE 702

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### ABSTRACT

*The 2000 amendments to Rule 702 sought to resolve the debate that had emerged in the courts in the 1990s over the proper meaning of Daubert by codifying the rigorous and structured approach to expert admissibility announced in the Daubert trilogy. Fifteen years later, however, the amendments have only partially accomplished this objective. Many courts continue to resist the judiciary's proper gatekeeping role, either by ignoring Rule 702's mandate altogether or by aggressively reinterpreting the Rule's provisions.*

*Informed by this additional history of recalcitrance, the time has come for the Judicial Conference to return to the drafting table and finish the job it began in 2000. Rule 702 should be amended to secure the promise of Daubert and effectively protect future litigants and*

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*juries from the powerful and quite misleading impact of unreliable expert testimony.*

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## INTRODUCTION

Until the mid-1980s, American courts, including federal courts, typically applied a very lenient standard to the admissibility of expert testimony.<sup>1</sup> With the exception of the general acceptance test outlined in *Frye v. United States*,<sup>2</sup> which was applied primarily to a narrow category of forensic testimony in criminal cases,<sup>3</sup> the only significant limitation unique to expert testimony was that an expert witness needed to be qualified in his field, with qualifications defined liberally.<sup>4</sup>

The rise of toxic tort litigation, characterized by cases often based on scientific premises that were dubious at best, led federal courts to apply the original Federal Rule of Evidence 702 (Rule 702) in novel ways to develop more stringent standards for the admissibility of expert testimony.<sup>5</sup> Some courts began to apply the *Frye* test to toxic tort controversies.<sup>6</sup> Other courts developed a test meant to ensure that expert testimony was “reliable.”<sup>7</sup> Still others were content with the “let-it-all-in” philosophy, though at times with an allowance for excluding expert testimony contradicted by a wealth of empirical studies.<sup>8</sup>

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1. See DAVID H. KAYE, DAVID E. BERNSTEIN & JENNIFER L. MNOOKIN, *THE NEW WIGMORE: A TREATISE ON EVIDENCE—EXPERT EVIDENCE* §§ 2.1.1-2.1.3 (Richard D. Friedman ed., 2d ed. 2010).

2. 293 F. 1013, 1014 (D.C. Cir. 1923).

3. Joseph Sanders, *Applying Daubert Inconsistently? Proof of Individual Causation in Toxic Tort and Forensic Cases*, 75 BROOK. L. REV. 1367, 1380-81 (2010).

4. See KAYE ET AL., *supra* note 1, §§ 1.2, 2.1.1. Traditionally, many courts also insisted that expert testimony be “beyond the ken of the jury.” *Id.* But once the Federal Rules of Evidence were enacted, that limitation withered in favor of admitting any expert testimony deemed “helpful” to the jury. See *id.* § 2.2.2, at 43-45.

5. See David E. Bernstein, *The Misbegotten Judicial Resistance to the Daubert Revolution*, 89 NOTRE DAME L. REV. 27, 35-40 (2013).

6. *Id.* at 40.

7. *Id.* at 39. In 1991, the Judicial Conference Advisory Committee on Civil Rules proposed amending Rule 702 to allow only expert testimony that is “reasonably reliable and will substantially assist the trier of fact.” COMM. ON RULES OF PRACTICE AND PROCEDURE, JUDICIAL CONFERENCE OF THE U.S., PRELIMINARY DRAFT OF PROPOSED AMENDMENTS TO THE FEDERAL RULES OF CIVIL PROCEDURE AND THE FEDERAL RULES OF EVIDENCE (1991), reprinted in 137 F.R.D. 53, 156-58 (1991).

8. Bernstein, *supra* note 5, at 35-38, 40.

In 1993, in the landmark case of *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, the Supreme Court resolved the debate in favor of the reliability test.<sup>9</sup> The Court held that in referencing scientific “knowledge,” Rule 702 established reliability as a prerequisite for the admissibility of expert scientific testimony.<sup>10</sup>

However, the Court larded *Daubert* with conflicting rhetoric that left ambiguous whether the case should be interpreted as establishing a strict or lenient standard of admissibility.<sup>11</sup> On the one hand, the Court noted “the ‘liberal thrust’ of the Federal Rules [of Evidence] and their ‘general approach of relaxing the traditional barriers to ‘opinion’ testimony,’”<sup>12</sup> and emphasized the “flexible” nature of the inquiry in which trial courts must engage.<sup>13</sup> The Court expressed optimism about the capabilities of the adversarial process and of the jury, and spoke of “shaky but admissible evidence.”<sup>14</sup>

On the other hand, the Court insisted that trial court judges adopt “a gatekeeping role” to “ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.”<sup>15</sup> The Court emphasized that Rule 702 “requires a valid scientific connection to the pertinent inquiry as a precondition to admissibility.”<sup>16</sup> And the Court explained that under the Federal Rules, a trial judge “exercises more control over experts than over lay witnesses.”<sup>17</sup>

In two subsequent cases, *General Electric Co. v. Joiner*<sup>18</sup> in 1997 and *Kumho Tire Co. v. Carmichael*<sup>19</sup> in 1999, the Court clarified several post-*Daubert* disputes that had arisen between courts citing to these competing *Daubert* passages. *Joiner* held that (a) the reliabil-

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9. 509 U.S. 579, 579-80 (1993).

10. *Id.* at 580.

11. Bernstein, *supra* note 5, at 41-43.

12. *Daubert*, 509 U.S. at 588 (quoting *Beech Aircraft Corp. v. Rainey*, 488 U.S. 153, 169 (1988)).

13. *Id.* at 594.

14. *Id.* at 596. “The Court’s more forgiving remarks seemed aimed primarily at a mythical version of *Frye*, understood as an ‘austere’ rule that made it extremely difficult to present expert testimony,” which is not, in fact, how *Frye* had traditionally been applied. Bernstein, *supra* note 5, at 43.

15. *Daubert*, 509 U.S. at 589, 597.

16. *Id.* at 592.

17. *Id.* at 595 (quoting Jack B. Weinstein, *Rule 702 of the Federal Rules of Evidence Is Sound; It Should Not Be Amended*, 138 F.R.D. 631, 632 (1991)).

18. 522 U.S. 136, 136-37 (1997).

19. 526 U.S. 137, 138-39 (1999).

ity test may be applied to an expert's reasoning process, not just to his general methodology, and (b) appellate courts should review all district court admissibility rulings under *Daubert* via the abuse-of-discretion standard, regardless of whether the lower court excluded or admitted the testimony at issue.<sup>20</sup> *Kumho Tire* held that the reliability test applies to nonscientific as well as scientific expert testimony.<sup>21</sup> This prevented courts from evading the reliability test by declaring the testimony at issue to be "non-scientific."<sup>22</sup>

By 2000, the Court unambiguously stated that *Daubert* established "exacting standards of reliability" for the admissibility of expert testimony.<sup>23</sup> Some willful lower court judges, however, had shown a propensity to ignore the revolutionary implications of the *Daubert* trilogy,<sup>24</sup> preferring to apply the much more liberal pre-*Daubert* standards.<sup>25</sup> Given that the original language of Rule 702 was hardly clear,<sup>26</sup> and that many courts insisted on relying on that language plus cherry-picked, permissive-sounding language from *Daubert* (without regard for *Joiner* and *Kumho Tire*), momentum built to amend the Federal Rules of Evidence to better reflect and clarify the rule on expert admissibility.<sup>27</sup>

In 2000, the Judicial Conference of the United States, with the approval of the Supreme Court and Congress, amended Federal Rule of Evidence 702 for the express purpose of resolving conflicts in the courts about the meaning of *Daubert*.<sup>28</sup> Through this amendment,

20. *Joiner*, 522 U.S. at 143, 146.

21. *Kumho Tire*, 526 U.S. at 147-49.

22. For an example of a court doing so, see *Carmichael v. Samyang Tire, Inc.*, 131 F.3d 1433 (11th Cir. 1997), *rev'd sub nom. Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999).

23. *Weisgram v. Marley Co.*, 528 U.S. 440, 455 (2000).

24. See David L. Faigman, *The Daubert Revolution and the Birth of Modernity: Managing Scientific Evidence in the Age of Science*, 46 U.C. DAVIS L. REV. 893, 895 (2013) (describing the changes of the *Daubert* trilogy as "revolutionary").

25. See Bernstein, *supra* note 5, at 43-44, 47-48.

26. Original Rule 702 provided: "If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise." 5 JACK B. WEINSTEIN & MARGARET A. BERGER, WEINSTEIN'S FEDERAL EVIDENCE § 702 App.01 (Joseph M. McLaughlin ed., Matthew Bender & Co. 2d ed. 2015).

27. See *infra* notes 51-71 and accompanying text.

28. See MAY 1, 1999 REPORT OF THE ADVISORY COMMITTEE ON EVIDENCE RULES TO THE STANDING COMMITTEE ON RULES OF PRACTICE AND PROCEDURE 5-7, <http://www.uscourts.gov/RulesAndPolicies/rules/reports/EV05-1999.pdf> [<http://perma.cc/CS23-DNGX>] [hereinafter

the Judicial Conference sought to codify a “more rigorous and structured approach” to the scrutiny of expert testimony than some courts were then employing.<sup>29</sup> The Judicial Conference rejected the argument that *Daubert* scrutiny was directed solely at unfounded methodologies such as astrology.<sup>30</sup> Rather, the Conference clarified, or so it thought, that trial courts must scrutinize the factual foundation of expert testimony and the reliability not only of the expert’s methodology but also of the expert’s application of that methodology to the facts at issue.<sup>31</sup>

Fifteen years have passed, and it is now apparent that the 2000 amendments to Rule 702 have not succeeded in entrenching these requirements. Although many courts have faithfully applied amended Rule 702, the same divisions that existed in the courts prior to 2000 continue to exist today—and on the very same issues that the Judicial Conference sought to resolve.

For example, the Ninth Circuit recently held that a district court must confine its analysis of expert testimony solely to the reliability of the expert’s methodology and must leave to the jury the question of whether the expert applied that methodology in a reliable manner.<sup>32</sup> In so holding, the Ninth Circuit not only disregarded the clear intent of amended Rule 702(d), but also remarkably rejected the holding of the very same Third Circuit case upon which the Judicial Conference directly relied in 2000 when it included that provision in Rule 702.<sup>33</sup> As we shall see, this is far from the only circuit court

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MAY 1, 1999 REPORT].

29. *Id.* at 7.

30. *Id.* at 47.

31. *Id.* at 5-7; *see also* FED. R. EVID. 702(b), (d). This Rule, along with other Federal Rules of Evidence, was restyled in 2011 “to make [it] more easily understood and to make style and terminology consistent throughout the rules.” FED. R. EVID. 702 advisory committee’s note to 2011 amendment. This “restyling” was not meant to make any substantive changes to the meaning of the rules. *Id.*

32. *City of Pomona v. SQM N. Am. Corp.*, 750 F.3d 1036, 1047 (9th Cir. 2014).

33. *Compare id.* at 1047-48 (rejecting reasoning in *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 745 (3d Cir. 1994)), *with* FED. R. EVID. 702 advisory committee’s note to 2000 amendment (citing same reasoning as *In re Paoli* in explaining that the 2000 amendment “specifically provides that the trial court must scrutinize not only the principles and methods used by the expert, but also whether those principles and methods have been properly applied to the facts of the case”).

opinion to ignore amended Rule 702 in favor of more lenient admissibility standards.<sup>34</sup>

It is not terribly surprising that some judges have continued to resist the revolutionary change in the way federal courts address the admissibility of expert testimony. Rule 702, as amended, not only codifies radical changes in the substantive law of expert testimony,<sup>35</sup> but it also places substantial new demands on judges by requiring them to take a far more managerial role over expert witnesses.<sup>36</sup> Although the language of the 2000 amendments appeared sufficient at the time to rein in recalcitrant judges who had tried to evade the *Daubert* trilogy's exacting admissibility standards, with the benefit of hindsight, it is now clear that the Judicial Conference failed to account for the tenacity of those who prefer the pre-*Daubert* approach to expert testimony.

First, a number of courts have simply ignored the Rule 702 amendment, relying instead on *Daubert* case law prior to the amendment or even on case law prior to *Daubert* itself.<sup>37</sup> At least some of these courts seem to have misread the Advisory Committee's explanation that Rule 702 was "amended in response to *Daubert v. Merrell Dow Pharmaceuticals, Inc.* and to the many cases applying *Daubert*"<sup>38</sup> as meaning that the Rule 702 amendments left all preamendment case law intact.<sup>39</sup> In fact, as we shall see, the amendments were explicitly meant to take sides in disputes that had arisen in federal precedents after *Daubert*.<sup>40</sup>

Relatedly, many courts continue to rely on the Supreme Court's analysis of Rule 702 in *Daubert*, failing to recognize that the wording

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34. See *infra* notes 150-67 and accompanying text.

35. See David E. Bernstein, *The Unfinished Daubert Revolution*, 10 ENGAGE: J. FEDERALIST SOC'Y PRAC. GROUPS 35, 35 (2009) ("[T]he emergence of the *Daubert*—702 reliability test for expert testimony is probably the most radical, sudden, and consequential change in the modern history of the law of evidence.").

36. See Faigman, *supra* note 24, at 907 (suggesting that the managerial aspect of *Daubert* is perhaps its most radical feature); Edward J. Imwinkelried, *Trial Judges—Gatekeepers or Usurpers? Can the Trial Judge Critically Assess the Admissibility of Expert Testimony Without Invading the Jury's Province to Evaluate the Credibility and Weight of the Testimony?*, 84 MARQ. L. REV. 1, 5 (2000) (discussing judges' case management responsibilities under *Daubert*).

37. See Bernstein, *supra* note 5, at 51-52.

38. See FED. R. EVID. 702 advisory committee's note to 2000 amendment (citation omitted).

39. See Bernstein, *supra* note 5, at 52.

40. See *infra* notes 143-49 and accompanying text.

of the Rule at the time of *Daubert* was significantly different than the amended Rule as it exists today.<sup>41</sup> Finally, as discussed in Part IV, the partial failure of the 2000 amendments can be attributed to faulty draftsmanship, because the amendments' language is insufficiently blunt to restrain judges who are inclined to resist a strong gatekeeper role.

The continued divisions among the federal courts over the proper standards for admission of expert testimony have resulted in the uneven administration of justice in the federal courts. Judicial protection from unreliable expert testimony has become dependent upon the happenstance of the jurisdiction in which a case is filed, or even the particular judge the parties happen to draw. This disarray not only contradicts the intent of the 2000 amendments to Rule 702; it also conflicts with Congress's broader intent that the Federal Rules of Evidence have uniform application nationwide.<sup>42</sup>

Most important, the failure of the 2000 amendments has undermined the primary purpose of the Federal Rules, as set forth in Rule 102, "to administer every proceeding fairly, eliminate unjustifiable expense and delay, and promote the development of evidence law, to the end of ascertaining the truth and securing a just determination."<sup>43</sup> As the Supreme Court cautioned in *Daubert*: "Expert evidence can be both powerful and quite misleading because of the difficulty in evaluating it."<sup>44</sup> The *Daubert* trilogy, as codified in Rule 702, shifted judicial attention "to the kind of empirically supported, rationally explained reasoning required in science, [which] has greatly improved the quality of evidence upon which juries base their verdicts."<sup>45</sup> The inability of Rule 702, as presently drafted, to consistently secure this purpose requires that action be taken.

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41. Prior to the 2000 amendments, Rule 702 provided only: "If scientific, technical, or otherwise specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise." Act of Jan. 2, 1975, Pub. L. No. 93-595, 88 Stat. 1937 (1975) (establishing the Federal Rules of Evidence).

42. *Lippay v. Christos*, 996 F.2d 1490, 1497 (3d Cir. 1993); *see also* *United States v. Chase*, 340 F.3d 978, 988 (9th Cir. 2003) (citing cases that suggest Congress's intent that the Federal Rules be applied uniformly nationwide).

43. FED. R. EVID. 102.

44. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 595 (1993).

45. *Rider v. Sandoz Pharm. Corp.*, 295 F.3d 1194, 1197 (11th Cir. 2002).

The need for proper Rule 702 gatekeeping against unreliable scientific evidence should not be a partisan issue. Some of the earliest calls for a crackdown on dubious expert testimony in toxic torts cases came from editorials in liberal-leaning publications, such as *The New England Journal of Medicine* and *The New York Times*.<sup>46</sup> The editors at these publications were especially concerned about how bogus lawsuits were jeopardizing access to contraception, in particular after a notorious case in which the Eleventh Circuit affirmed a \$5 million dollar award to a plaintiff who alleged that his mother's use of a common spermicide had caused his birth defects.<sup>47</sup> The revolution in the rules governing the admissibility of expert testimony began with a unanimous, bipartisan Supreme Court opinion in *Daubert* and continued to draw support from all of the Justices, save Justice Stevens, in *Joiner* and *Kumho Tire*.<sup>48</sup> The Advisory Committee on Evidence Rules that drafted the 2000 amendments to Rule 702 had no discernable agenda beyond improving the quality of expert testimony admitted in American courts.

Moreover, although the debate over admissibility often plays out in the arena of toxic tort litigation, with corporate defendants challenging the reliability of testing proffered by plaintiffs' experts, the Federal Rules also govern criminal proceedings. Many commentators have bemoaned the "lackadaisical" approach that some courts have taken in screening out unreliable forensic evidence in criminal prosecutions.<sup>49</sup> Public defenders offices have argued that "[m]ore vigilant 'gatekeeping' is especially important in criminal cases, where innocent defendants can lose their liberty based on faulty

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46. See, e.g., James L. Mills & Duane Alexander, *Occasional Notes: Teratogens and "Litogens,"* 315 NEW ENG. J. MED. 1234, 1234-35 (1986); Opinion, *Federal Judges vs. Science*, N.Y. TIMES (Dec. 27, 1986), <http://www.nytimes.com/1986/12/27/opinion/federal-judges-vs-science.html> [<http://perma.cc/HZC3-F6TM>].

47. *Wells v. Ortho Pharm. Corp.*, 788 F.2d 741, 742-43, 747-48 (11th Cir. 1986).

48. See *infra* note 208 and accompanying text.

49. DAVID L. FAIGMAN ET AL., MODERN SCIENTIFIC EVIDENCE: THE LAW AND SCIENCE OF EXPERT TESTIMONY § 1:30 (2014) ("As a general matter, courts have been, at best, lackadaisical and, at worst, disingenuous, in carrying out their gatekeeping duties toward forensic science."); see NAT'L RESEARCH COUNCIL, STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD 11 (2009) ("[J]udicial dispositions of *Daubert*-type questions in criminal cases have been criticized by some lawyers and scholars who thought that the Supreme Court's decision would be applied more rigorously.... Federal appellate courts have not with any consistency or clarity imposed standards ensuring the application of scientifically valid reasoning and reliable methodology in criminal cases involving *Daubert* questions.").

forensic evidence, and adversarial testing is less likely to curb the impact of ‘bad science.’”<sup>50</sup>

This Article proposes to remedy the inconsistent enforcement of expert testimony gatekeeping via a new amendment to Rule 702. Part I reviews the history of the 2000 amendments, starting with proposed legislation in Congress in the mid-1990s and running through the rule-drafting process in the Judicial Conference’s Advisory Committee on Evidence Rules and approval by the Standing Committee on Rules of Practice and Procedure and the full Judicial Conference. This review focuses on the Judicial Conference’s attempt to resolve three conflicts that had emerged in the years immediately following *Daubert*: (1) whether the court must determine that an expert reliably applied his methodology to the facts of the case, (2) the proper scrutiny of the factual foundations of an expert’s testimony, and (3) the degree to which a trial court may defer to an expert’s unsubstantiated assertions that his testimony is reliable.

Part II describes the resistance in some courts to the language and intent of Rule 702 as amended in 2000. Rather than faithfully construing Rule 702 as they would the other federal evidentiary rules, some federal judges have ignored the Rule altogether, relying instead on outdated case law that the 2000 amendments specifically sought to overrule. While these courts occasionally provide lip service to Rule 702, they have been far more lenient about admitting expert testimony than any reasonable reading of the Rule would allow.

Part III surveys the case law following the 2000 amendments to Rule 702 and shows that the three preamendment conflicts over expert admissibility identified in Part I still exist. Notably, many of the courts that persist in applying the more lenient admissibility

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50. Brief for Public Defender Service as Amicus Curiae Supporting Appellants at 16, *Motorola, Inc. v. Murray*, No. 14-CV-1350 (D.C. Feb. 10, 2015); *see also id.* at 1 (“Keeping ‘bad science’ out of the courtroom is especially important in criminal cases, where juries place tremendous weight on scientific evidence, and unreliable forensic evidence is a leading cause of wrongful convictions.”). The D.C. Public Defender Service cited specifically to the findings of the Innocence Project in stating that “unreliable forensic evidence is a leading cause of wrongful convictions, contributing to nearly half of the wrongful convictions that have been overturned by DNA exonerations.” *Id.* at 16 (citing *Unvalidated or Improper Forensic Science*, INNOCENCEPROJECT, <http://www.innocenceproject.org/causes-wrongful-conviction/unvalidated-or-improper-forensic-science> [<http://perma.cc/3F22-WVDM>] (last visited Sept. 27, 2015)).

standards blithely cite to the language of Rule 702 without acknowledging how their rulings contradict the Rule's intended meaning.

Finally, Part IV proposes specific revisions to the language of Rule 702 that will remove any perceived ambiguity about trial courts' gatekeeping responsibility against unreliable expert testimony. Hopefully, this will finally put an end to the judicial resistance to gatekeeping that has persisted since the Supreme Court decided *Daubert*.

#### I. THE 2000 AMENDMENTS TO RULE 702

The process that led to the 2000 amendments of Rule 702 began in early 1993, when Chief Justice Rehnquist established and appointed members to the Judicial Conference Advisory Committee on Evidence Rules.<sup>51</sup> During public meetings on May 9 and 10, 1994, and October 17 and 18, 1994, the Committee discussed at length the rules on expert discovery.<sup>52</sup> The Committee unanimously concluded that it was "too early to determine whether *Daubert* [would] curb[] abuses in the use of expert testimony" and that a valid assessment of *Daubert*'s effects could be made only "after courts acquire[d] more experience with it."<sup>53</sup> The Committee decided to "continue to study the operation and effect of [Rule 702] as construed under *Daubert* by the courts."<sup>54</sup>

In January 1995, the newly elected Republican majority in the U.S. House of Representatives proposed its own amendment to Rule 702 as part of its Contract with America.<sup>55</sup> In relevant part, the proposed amendment would have added the following language to the end of the existing Rule:

(b) Adequate basis for opinion.—Testimony in the form of an opinion by a witness that is based on scientific knowledge shall

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51. See Letter from Judge Ralph K. Winter, Chairman, Advisory Comm. on Evidence Rules, Comm. on Rules of Practice and Procedure of the Judicial Conference of the U.S., to the Hon. Carlos J. Moorhead, Chairman, Subcomm. on Courts and Intellectual Prop., House Comm. on the Judiciary, 104th Cong. (Feb. 7, 1995), in H.R. REP. No. 104-62, at 18-20 (1995) [hereinafter Winter Letter].

52. *Id.* at 18.

53. *Id.* at 19.

54. *Id.*

55. See Attorney Accountability Act of 1995, H.R. 998, 104th Cong. § 3.

be inadmissible in evidence unless the court determines that such opinion—

- (1) is scientifically valid and reliable;
- (2) has a valid scientific connection to the fact it is offered to prove; and
- (3) is sufficiently reliable so that the probative value of such evidence outweighs the dangers specified in rule 403.<sup>56</sup>

The proposed new subdivision (b) would not apply to criminal proceedings.<sup>57</sup>

On January 9 and 10, 1995, the Advisory Committee on Evidence Rules considered the proposed congressional amendment to Rule 702.<sup>58</sup> As set forth in a letter from its Chair, U.S. Circuit Judge Ralph Winter, the Committee opposed the proposed amendment as being both too narrow and too broad.<sup>59</sup> The Committee believed the amendment was too narrow because it was limited to “scientific knowledge” and accordingly would not extend to other types of technical and specialized knowledge.<sup>60</sup> The Committee believed the amendment was too broad because it imposed a new requirement of scientific “validity” that was not set forth in *Daubert* and that would “impose[ ] an ill-defined burden on the courts.”<sup>61</sup> The Committee also expressed concern that the proposed amendment reversed the balancing test in Rule 403 by permitting admission of expert testimony only if “the probative value of [the proffered opinion] outweighs the dangers specified in Rule 403” (as opposed to the existing Rule 403 test, which allows exclusion of evidence only if “the danger of unfair prejudice, confusion of the issues, or misleading the jury” substantially outweighs the probative value).<sup>62</sup> Judge Winter concluded his letter by urging Congress to instead follow the process set forth under the Rules Enabling Act and allow any amendment to Rule 702 to be addressed in the first instance by the Judicial Conference.<sup>63</sup>

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56. *Id.*

57. *Id.* A separate proposed subdivision (c) would have prohibited experts from being compensated contingent on the outcome of the litigation. *Id.*

58. Winter Letter, *supra* note 51, at 19.

59. *See id.*

60. *Id.*

61. *Id.*

62. *Id.*

63. *Id.* at 20.

The proposed House amendment to Rule 702 was not enacted, but congressional interest in amending Rule 702 continued.<sup>64</sup> In response to this potential congressional action, the Advisory Committee on Evidence Rules agreed during its April 14 and 15, 1997 meeting to revisit the question of whether Rule 702 should be amended.<sup>65</sup> On September 11, 1997, the Advisory Committee's Reporter, Professor Dan Capra, prepared a memorandum setting forth various policy questions for the Committee's consideration and reviewing a number of potential models for an amended Rule 702.<sup>66</sup> Professor Capra raised one key question:

Should the *Daubert* test apply only to the *principles* upon which the expert bases her testimony, or should Rule 702 also require that the *application* of the principles must be reliable as well? For example, with DNA tests, is it only necessary to show that the technique of DNA identification is reliable, or must it also be shown that the test was reliably conducted in the specific case?<sup>67</sup>

In his review of various potential models for the amended Rule, Professor Capra repeatedly stated his preference that Rule 702 address the reliability of the application of the expert's method as well as the method itself.<sup>68</sup>

At its subsequent meeting on October 20 and 21, 1997, the "[Advisory] Committee agreed unanimously that there [was] ... enough case law—and conflicts among the courts—to justify consideration of an amendment to ... Rule 702."<sup>69</sup> The Advisory Committee further agreed to a number of general principles to guide the amendment process, including, *inter alia*, (1) "[t]he amendment must cover not

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64. See Civil Justice Fairness Act of 1997, S. 79, 105th Cong. (Jan. 21, 1997). Section 302, "Honesty in Evidence," generally paralleled the House's proposed 1995 amendments to Rule 702. *Id.* § 302.

65. See MAY 1, 1999 REPORT, *supra* note 28, at 4.

66. See Memorandum from Dan Capra, Reporter to Advisory Comm. on Evidence Rules, to Advisory Comm. on Evidence Rules (Sept. 11, 1997), <http://www.uscourts.gov/rules-policies/archives/agenda-books/advisory-committee-rules-evidence-october-1997> [<http://perma.cc/BU5T-W68K>].

67. *Id.* at 2.

68. See *id.* at 6, 10, 14, 17, 19, 31, 34, 35.

69. See DEC. 1, 1997 REPORT OF THE ADVISORY COMMITTEE ON EVIDENCE RULES TO THE STANDING COMMITTEE ON RULES OF PRACTICE AND PROCEDURE 4, <http://www.uscourts.gov/rules-policies/archives/agenda-books/advisory-committee-rules-evidence-october-1997> [<http://perma.cc/6XAW-QNDE>] [hereinafter DEC. 1, 1997 REPORT].

only the theories employed by the expert, but also the application of those theories to the specific facts of the case,” and (2) “[a]ny amendment to Evidence Rule 703, concerning the use of inadmissible information by an expert, would be related to and should be considered together with any amendment to Rule 702.”<sup>70</sup> The Advisory Committee appointed a subcommittee to prepare a proposal to amend Rule 702.<sup>71</sup>

On February 16, 1998, the subcommittee submitted a proposed Rule 702 amendment to the Advisory Committee.<sup>72</sup> The subcommittee’s proposed amendment to Rule 702 read as follows:

If scientific, technical, or other[wise] specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, provided (1) the testimony is adequately based upon reliable underlying facts, data or opinions; (2) the testimony is based upon reliable principles and methodology; and (3) the principles and methodology employed by the witness have been applied reliably to the facts of the case.<sup>73</sup>

The subcommittee’s proposed Advisory Committee Note provided further explanation for the amended language.<sup>74</sup> As relevant here, the subcommittee explained that (1) “[t]he amendment specifically provides that the trial court must scrutinize not only the methodology that was used by the expert, but also whether the methodology has been properly applied to the facts of the case,”<sup>75</sup> (2) “an analysis of the expert’s basis cannot be divorced from the ultimate reliability of the expert’s opinion.... [and that] the question of whether the expert is relying on an *adequate* and reliable basis of information—whether admissible information or not—is governed by the

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70. *Id.*

71. *Id.*

72. See Memorandum from Dan Capra, Reporter, Advisory Comm. on Evidence Rules, to Advisory Comm. on Evidence Rules (Feb. 16, 1998), <http://www.uscourts.gov/rules-policies/archives/agenda-books/advisory-committee-rules-evidence-april-1998> [<http://perma.cc/T4P4-AFSF>] [hereinafter Feb. 16, 1998 Memorandum].

73. *Id.* at 2.

74. See *id.* at 7-10.

75. *Id.* at 7.

reliability requirement of Rule 702,<sup>76</sup> and (3) “[t]he amendment does not distinguish between scientific and other forms of expert testimony.... [but noted that] [s]ome expert testimony will be more objectively verifiable, and subject to the expectations of falsifiability, peer review, and publication.”<sup>77</sup> The subcommittee further explained that under the amended Rule 702, “[t]he trial court’s gatekeeper function requires more than simply ‘taking the expert’s word for it.’”<sup>78</sup>

On April 6 and 7, 1998, with minor stylistic edits, the Advisory Committee “recommend[ed] that the proposed amendment ... be approved for public comment.”<sup>79</sup> The Advisory Committee held a public hearing on the proposed amendment on October 22, 1998, and sent the proposed rule back to Professor Capra for further consideration in light of the received comments.<sup>80</sup> The Advisory Committee also noted that the Supreme Court had agreed to hear argument in *Kumho Tire* on the question of whether the *Daubert* gatekeeping requirement applied to testimony of nonscientific experts, a decision that had the potential to affect the proposed amendment.<sup>81</sup>

On March 1, 1999, Professor Capra reported back to the Advisory Committee with his responses to the public comments.<sup>82</sup> A full accounting of the comments and responses exceeds the scope of this Article, but a few of Professor Capra’s statements are pertinent.

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76. *Id.* at 10.

77. *Id.* at 8-9.

78. *Id.* at 9.

79. See MAY 1, 1998 REPORT OF THE ADVISORY COMMITTEE ON EVIDENCE RULES TO THE STANDING COMMITTEE ON RULES OF PRACTICE AND PROCEDURE 2, <http://www.uscourts.gov/rules-policies/archives/committee-reports/advisory-committee-rules-evidence-may-1998> [<http://perma.cc/F343-WHLD>] [hereinafter MAY 1, 1998 REPORT]. The one potentially substantive change was to subpart (1), in which the word “adequately” was changed to “sufficiently” and the reference in that same subsection to opinions was removed. See *id.* at 8. This language was further revised in the drafting process. See *infra* text accompanying notes 87-97.

80. See DEC. 1, 1998 REPORT OF THE ADVISORY COMMITTEE ON EVIDENCE RULES TO THE STANDING COMMITTEE ON RULES OF PRACTICE AND PROCEDURE 1, 3, <http://www.uscourts.gov/rules-policies/archives/committee-reports/advisory-committee-rules-evidence-december-1998> [<http://perma.cc/B3DM-BXLY>] [hereinafter DEC. 1, 1998 REPORT].

81. *Id.* at 3.

82. See Memorandum from Dan Capra, Reporter to Advisory Comm. on Evidence Rules, to Advisory Comm. on Evidence Rules (Mar. 1, 1999), <http://www.uscourts.gov/rules-policies/archives/agenda-books/advisory-committee-rules-evidence-april-1999> [<http://perma.cc/9TQY-GJVB>] [hereinafter Mar. 1, 1999 Memorandum].

First, Professor Capra expressly rejected the view of those commentators who argued against any amendment to Rule 702.<sup>83</sup> He stated that “[t]hese commentators tend[ed] to overstate the existence of post-*Daubert* uniformity” and explained that the proposed rule would clarify that gatekeepers are required “to determine that the expert’s methods are reliably applied to the facts of the case” and that an expert’s “methodology and conclusion cannot be neatly divorced.”<sup>84</sup> Professor Capra explained further:

[E]ven without any obvious conflicts on the specifics, the courts have divided over how to even approach a *Daubert* question. Some courts seem to approach *Daubert* as a rigorous exercise requiring the trial court to scrutinize, in detail, the expert’s basis, methods, and application. Other courts seem to think that all *Daubert* requires is that the trial court assure itself that the expert’s opinion is something more than mere unfounded speculation—all other possible defects go to the jury.<sup>85</sup>

Professor Capra stated that “[a]doption of the proposed rule change, and the Committee Note, would likely help to provide uniformity in the *approach* to *Daubert* questions,” because “[t]he proposed amendment and the Committee Note clearly envision[ed] a more rigorous and structured approach than some courts were currently employing.”<sup>86</sup>

Professor Capra spent a significant amount of time discussing comments on the subpart of the proposed rule that addressed the trial court’s gatekeeping responsibility with respect to the facts relied upon as a basis for the expert testimony.<sup>87</sup> That subpart required that “expert testimony must be sufficiently based on reliable facts or data.”<sup>88</sup> The comments focused on the fact that Rule 703 separately required the trial judge to screen the reliability of inadmissible evidence used by an expert and the concern that the proposed subpart of Rule 702, as worded, would require the judge to

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83. *See id.* at 47-48.

84. *Id.* at 47.

85. *Id.* at 47-48.

86. *Id.* at 48.

87. *See id.* at 30-45.

88. *Id.* at 30.

screen the reliability of admissible evidence and thus invade the province of the jury.<sup>89</sup>

Professor Capra allowed that:

The fact that there are so many competing interpretations about the relationship between Subpart (1) and Rule 703 is cause for concern. At the very least, the relationship between “reliable facts or data” in Subpart (1) and inadmissible information of “a type reasonably relied upon by experts in the particular field” in Rule 703 is a complex one, possibly leading to costs in terms of confusion and misapplication.<sup>90</sup>

He also expressed his belief that the other subparts of Rule 702 and Rule 703 already required the courts to screen the reliability of the factual foundation of expert testimony, stating that “it is hard to see what kind of unreliable basis of information might slip through the cracks of those provisions that would need to be regulated by a *separate reliability requirement* (as opposed to a *sufficiency requirement*) in Subpart (1).”<sup>91</sup> Professor Capra thus proposed alternative language for Subpart (1) that would require the trial court to engage in a quantitative analysis to ensure that the expert had relied on enough data—for example, the expert had not excluded something from consideration that he should have included—leaving the qualitative analysis of the reliability of facts and data to Rule 703.<sup>92</sup> Accordingly, Subpart (1) was modified to its current language, removing the word “reliable” and requiring only that testimony be based on “sufficient facts or data.”<sup>93</sup>

On April 12 and 13, 1999, the Advisory Committee recommended that the proposed amendment to Rule 702, as modified, be approved and forwarded to the Judicial Conference.<sup>94</sup> The Standing Committee on Rules of Practice and Procedure approved the proposed amendment to Rule 702 and forwarded it to the Judicial Conference, which approved the Rule on September 15, 1999.<sup>95</sup> Rule 702 was

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89. *Id.*

90. *Id.* at 31.

91. *Id.*

92. *Id.* at 32-41.

93. FED. R. EVID. 702(b).

94. MAY 1, 1999 REPORT, *supra* note 28, at 1, 7.

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subsequently amended by order of the Supreme Court and submitted to Congress on April 17, 2000.<sup>96</sup> The new rule took effect on December 1, 2000.<sup>97</sup>

## II. JUDICIAL DISREGARD OF AMENDED RULE 702

As the Supreme Court has long asserted, including in *Daubert* itself, the Federal Rules of Evidence are interpreted like any other statute.<sup>98</sup> The first and most important step in interpreting any statute, including any Federal Rule of Evidence, is to start with the statutory language.<sup>99</sup> Nevertheless, federal courts often ignore the language of amended Rule 702 when determining whether to uphold a district court decision excluding expert testimony. Other courts pay lip service to the Rule by quoting its language but then proceed to ignore its text for the remainder of the opinion.

Consider the Eighth Circuit case *Johnson v. Mead Johnson & Co.*, decided almost fourteen years after amended Rule 702 went into effect.<sup>100</sup> The district court excluded the plaintiff's experts' testimony in a case alleging that the plaintiff was injured as an infant by contaminated baby formula.<sup>101</sup> On appeal, the Eighth Circuit began by acknowledging that Rule 702 governs the admissibility of expert testimony.<sup>102</sup> But then, instead of addressing the language of Rule 702, the court stated that "[t]he screening requirement of Rule 702 has been boiled down to a three-part test:"

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75-76 (Sept. 15, 1999).

96. See Order Amending the Federal Rules of Evidence, 529 U.S. 1189, 1195 (2000).

97. *Id.* at 1191.

98. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 587 (1993) (citing *Beech Aircraft Corp. v. Rainey*, 488 U.S. 153, 163 (1988)).

99. See, e.g., *United States v. Salerno*, 505 U.S. 317, 322 (1992) (relying on the plain meaning of "testimony" in reaching the conclusion that Rule 804(b)(1) "applies only to sworn statements"); *United States v. Zolin*, 491 U.S. 554, 566 (1989) (rejecting an interpretation of Rule 104(a) that would be inconsistent with its "plain language"). See generally *Salerno*, 505 U.S. at 322 ("To respect [Congress's] determination, we must enforce the words that it enacted."); Edward J. Imwinkelried, Response, *Whether the Federal Rules of Evidence Should Be Conceived as a Perpetual Index Code: Blindness Is Worse than Myopia*, 40 WM. & MARY L. REV. 1595, 1595-98 (1999) (explaining and defending the Supreme Court's treatment of the Federal Rules of Evidence as a statute).

100. 754 F.3d 557 (8th Cir. 2014).

101. *Id.* at 557.

102. *Id.* at 561.

First, evidence based on scientific, technical, or other specialized knowledge must be useful to the finder of fact in deciding the ultimate issue of fact. This is the basic rule of relevancy. Second, the proposed witness must be qualified to assist the finder of fact. Third, the proposed evidence must be reliable or trustworthy in an evidentiary sense, so that, if the finder of fact accepts it as true, it provides the assistance the finder of fact requires.<sup>103</sup>

In adopting this understanding of Rule 702, the court quoted a 2008 opinion, *Polski v. Quigley Corp.*,<sup>104</sup> which in turn quoted *Lauzon v. Senco Products, Inc.*,<sup>105</sup> from 2001, which in turn quoted an evidence treatise coauthored by the late Professor Margaret Berger,<sup>106</sup> a leading critic of stricter rules for the admissibility of expert testimony.<sup>107</sup>

While the Eighth Circuit's formulation in *Lauzon* was hardly sufficient to "boil down" parts (1) through (3) of amended Rule 702,<sup>108</sup> at least the court then had acknowledged:

[t]he basis for the third prerequisite lies in the recent amendment of Rule 702, which adds the following language to the former rule: "(1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case."<sup>109</sup>

Thirteen years later in *Johnson*, however, Rule 702's language was ignored altogether, and Berger's formulation became the relevant law<sup>110</sup>—as if a three-sentence summary in a legal treatise has more weight than the text of the statute it purports to be summarizing.

Still, *Johnson* could have applied the Berger formulation rigorously, and therefore consistently with Rule 702. Instead, the court asserted that "*Daubert* and Rule 702 ... greatly liberalized what had been the strict *Frye* standards for admission of expert scientific

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103. *Id.*

104. 538 F.3d 836, 839 (8th Cir. 2008).

105. 270 F.3d 681, 686 (8th Cir. 2001).

106. WEINSTEIN & BERGER, *supra* note 26, § 702.02[3].

107. See, e.g., Margaret A. Berger, *What Has a Decade of Daubert Wrought?*, 95 AM. J. PUB. HEALTH S59, S61-62, S64-65 (2005).

108. *Johnson*, 754 F.3d at 561.

109. *Lauzon*, 270 F.3d at 686 (quoting FED. R. EVID. 702).

110. See *Johnson*, 754 F.3d at 561.

testimony.”<sup>111</sup> Indeed, the court used variations of the word “liberal” to describe its admissibility standards four different times.<sup>112</sup> And once again, the court cited to a line of authority building on *Lauzon*, in which the court had asserted that “Rule 702 reflects an attempt to liberalize the rules governing the admission of expert testimony.”<sup>113</sup> *Lauzon*, in turn, quoted the 1999 Eighth Circuit case *Weisgram v. Marley Co.*<sup>114</sup> *Weisgram* cited to *Arcoren v. United States*,<sup>115</sup> decided in 1991, not only before Rule 702 was amended, but also before the Supreme Court established the reliability test in *Daubert*. Not surprisingly, the Supreme Court, in affirming *Weisgram*, took pains to disagree with the Eighth Circuit’s assessment of *Daubert*, remarking instead that *Daubert* establishes “exacting standards of reliability.”<sup>116</sup>

The *Johnson* court then proceeded to make a mockery of the abuse-of-discretion standard of review it was supposed to be applying to the district court’s exclusion of the evidence. Applying that standard should have created a strong presumption in favor of upholding the district court decision. Instead, *Johnson* paid lip service to abuse-of-discretion, but then suggested, as several courts did right after *Daubert*, that opinions that exclude plaintiffs’ evidence get less deference because they conflict with *Daubert*’s “liberal thrust.”<sup>117</sup> The court wrote:

Interestingly, the liberalization of the standard for admission of expert testimony creates an intriguing juxtaposition with our oft-repeated abuse-of-discretion standard of review. While we adhere to this discretionary standard for review of the district court’s Rule 702 gatekeeping decision, cases are legion that, correctly, under *Daubert*, call for the liberal admission of expert testimony.<sup>118</sup>

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111. *Id.* at 562.

112. *Id.*

113. *Lauzon*, 270 F.3d at 686.

114. 169 F.3d 514, 523 (8th Cir. 1999), *aff’d*, 528 U.S. 440 (2000).

115. 929 F.2d 1235, 1239 (8th Cir. 1991).

116. *Weisgram v. Marley Co.*, 528 U.S. 440, 455 (2000).

117. *Johnson*, 754 F.3d at 562.

118. *Id.*

In other words, the court implied that it did not defer to the district court's opinion because that court failed to apply a liberal admissibility standard.<sup>119</sup> In so doing, *Johnson* not only acted contrary to the "exacting" thrust of the *Daubert* trilogy and amended Rule 702, but it also made the same error the Supreme Court explicitly corrected in *Joiner*. In *Joiner*, the Court explicitly rejected the Eleventh Circuit's claim that the standard of review of district court opinions should be more stringent when considering opinions that exclude expert evidence.<sup>120</sup>

When a court egregiously misstates the law of expert testimony in this fashion, one is tempted to assume that the party that moved to have the relevant testimony excluded briefed the issue poorly. That is not what happened in *Johnson*.<sup>121</sup> Mead Johnson's brief not only quoted the language of amended Rule 702, but also specifically analyzed admissibility through the language of the Rule, step by step.<sup>122</sup> The Eighth Circuit's opinion, therefore, seems like a willful refusal to be governed by the relevant legal standard.

The Ninth Circuit similarly disregarded amended Rule 702 in *City of Pomona v. SQM North America Corp.*<sup>123</sup> Unlike *Johnson*, the Ninth Circuit began its discussion of the admissibility of expert testimony by quoting Rule 702.<sup>124</sup> The court nonetheless proceeded to ignore the Rule thereafter, in favor of its own interpretation of what it deemed "*Daubert*[s] liberal standard" that allows district courts to exclude only "nonsense opinions."<sup>125</sup> More generally, as in *Johnson*, the court seemed to apply something more akin to de novo than to abuse-of-discretion review of the district court's decision to exclude the plaintiff's evidence.

The court ultimately asserted a wildly incorrect legal rule, to wit, "only a faulty methodology or theory, as opposed to imperfect execu-

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119. *See id.*

120. Gen. Elec. Co. v. Joiner, 522 U.S. 136, 143 (1997).

121. *See* Brief of Defendant-Appellee at 48-50, *Johnson v. Mead Johnson & Co.*, 754 F.3d 557 (8th Cir. 2014) (No. 13-1685), 2013 WL 3913931, at \*18-20.

122. *Id.*

123. 750 F.3d 1036 (9th Cir. 2014).

124. *Id.* at 1043.

125. *Id.* at 1044, 1049. The Eighth Circuit has similarly asserted that "[o]nly if the expert's opinion is so fundamentally unsupported that it can offer no assistance to the jury must such testimony be excluded." *Bonner v. ISP Techs., Inc.*, 259 F.3d 924, 929-30 (8th Cir. 2001) (quoting *Hose v. Chi. Nw. Transp. Co.*, 70 F.3d 968, 974 (8th Cir. 1996)). This was not a correct statement of the law even in 1995, much less after Rule 702 was amended in 2000.

tion of laboratory techniques, is a valid basis to exclude expert testimony.”<sup>126</sup> This error is discussed in further detail later in this Article.<sup>127</sup>

As with the Ninth Circuit in *SQM North America*, in *Milward v. Acuity Specialty Products Group, Inc.* in 2011, the First Circuit perfunctorily quoted the text of amended Rule 702 and then ignored the Rule when analyzing the admissibility of the plaintiffs’ expert testimony.<sup>128</sup> Instead of treating Rule 702 as the governing standard for the admissibility of expert testimony, *Milward* quoted a post-2000 First Circuit opinion, *United States v. Vargas*, for the proposition that “weak” expert testimony should be admitted for jury consideration.<sup>129</sup> *Vargas*, meanwhile, had not only ignored the text of amended Rule 702, but also *Daubert*, *Joiner*, and *Kumho Tire*. Instead, *Vargas* relied on a case from 1988, five years before the revolutionary changes to the admissibility of expert testimony brought about by *Daubert*.<sup>130</sup>

Even though the *Milward* court acknowledged significant weaknesses in the expert testimony at issue, and even though the court was supposed to be applying an abuse-of-discretion standard, it reversed the district court’s exclusion of the testimony.<sup>131</sup> The court explained, consistent with the state of the law in 1988, but not with amended Rule 702, “[w]hen the factual underpinning of an expert’s opinion is weak, it is a matter affecting the weight and credibility of the testimony—a question to be resolved by the jury.”<sup>132</sup>

Perhaps the worst example of a federal appellate court ignoring the language of amended Rule 702 arose in the 2006 Federal Circuit opinion in *Liquid Dynamics Corp. v. Vaughan Co.*<sup>133</sup> In this case, the court never referenced the text of Rule 702, or, for that matter, showed an awareness that Rule 702, as amended in 2000, was the governing rule for the admissibility of expert testimony.<sup>134</sup> The court cited *Daubert* as the last word on the scope of Rule 702, ignoring

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126. *SQM N. Am. Corp.*, 750 F.3d at 1048.

127. *See infra* Part III.A.

128. *See* 639 F.3d 11 (1st Cir. 2011).

129. *Id.* at 22 (quoting *United States v. Vargas*, 471 F.3d 255, 264 (1st Cir. 2006)).

130. *Id.*

131. *Id.* at 13, 20-24, 26.

132. *Id.* at 22.

133. 449 F.3d 1209 (Fed. Cir. 2006).

134. *See id.*

both the text of amended Rule 702 and *Joiner*.<sup>135</sup> To justify its ruling, the court cited a 1986 Eighth Circuit opinion for the proposition that inadequacies in expert testimony are a matter of weight, not admissibility.<sup>136</sup> The court also cited an equally wrongheaded post-2000 Eleventh Circuit opinion that relied on the same 1986 precedent to state that an objection to the reliability of an expert's testimony goes only to weight, not admissibility.<sup>137</sup>

Speaking of the Eleventh Circuit, in a 2011 case, *Rosenfeld v. Oceania Cruises, Inc.*, the court quoted a 2004 case, which in turn quoted a 1998 case, as establishing the following test for the admissibility of expert testimony:

(1) the expert is qualified to testify competently regarding the matters he intends to address; (2) the methodology by which the expert reaches his conclusions is sufficiently reliable as determined by the sort of inquiry mandated in *Daubert*; and (3) the testimony assists the trier of fact, through the application of scientific, technical, or specialized expertise, to understand the evidence or to determine a fact in issue.<sup>138</sup>

If the court was aware that amended Rule 702 had since established by statute a different test for the admissibility of expert testimony, it is not apparent from the opinion.

District court judges, whom one would expect to be especially familiar with the vagaries of the Federal Rules of Evidence, also at times have ignored the existence of amended Rule 702. In a multi-district litigation (MDL) case decided in 2012, *In re Chantix (Varenicline) Products Liability Litigation*, the court stated that "Rule 702, Federal Rules of Evidence, as construed by the Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, requires expert scientific evidence to be both reliable and relevant pursuant to Rule 702, such that it appropriately assists the trier of fact."<sup>139</sup> Of

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135. *Id.* at 1220-21.

136. *Id.* at 1221 (citing *Wilmington v. J.I. Case Co.*, 793 F.2d 909, 920 (8th Cir. 1986)).

137. *Id.* (citing *Quiet Tech. DC-8, Inc. V. Hurel-Dubois UK Ltd.*, 326 F.3d 1333, 1343-44 (11th Cir. 2003))

138. 654 F.3d 1190, 1193 (11th Cir. 2011) (quoting *United States v. Frazier*, 387 F.3d 1244, 1260 (11th Cir. 2004) (quoting *City of Tuscaloosa v. Harcros Chems., Inc.*, 158 F.3d 548, 562 (11th Cir. 1998))).

139. 889 F. Supp. 2d 1272, 1279 (N.D. Ala. 2012) (citation omitted).

course, the 2012 version of Rule 702 could not have been construed in *Daubert*, given that *Daubert* was decided more than seven years before that Rule came into existence. Not surprisingly, the court never cited the text of Rule 702, despite many citations to other material.<sup>140</sup>

In another recent case, a judge supervising MDL cited a circuit court case from 1999 as a binding interpretation of Rule 702 and ignored the language of the current Rule.<sup>141</sup> The MDL judge stated:

Federal Rule of Evidence 702 reads: “[I]f scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient fact or data, (2) the testimony is the product of reliable principles and methods; and (3) the witness has applied the principles and methods reliably to the facts.” The Third Circuit has distilled this rule to two essential inquiries: 1) is the proffered expert qualified to express an expert opinion; and 2) is the expert opinion reliable?<sup>142</sup>

Of course, in the 1999 case, the Third Circuit could not have distilled amended Rule 702's language into that test, because Rule 702 had yet to be amended. So one can only assume that the MDL judge was unaware that Rule 702 had been completely rewritten.

### III. CONTINUED DIVISIONS IN THE COURTS OVER THE SCREENING OF EXPERT TESTIMONY

Due in part to many courts' resistance to the 2000 amendments to Rule 702, the conflicts over *Daubert* that the Advisory Committee sought to resolve have continued to fester. Moreover, in recent years, a number of courts have strayed dramatically afield from the

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140. *See id.* at 1272-1304.

141. *In re Avandia Mktg., Sales Practices & Prods. Liab. Litig.*, No. 2007-MD-1871, 2011 WL 13576, at \*1-2 (E.D. Pa. Jan. 4, 2011).

142. *Id.* at \*1 (alteration in original) (quoting *In re TMI Litig.*, 193 F.3d 613, 664 (3d Cir. 1999)).

core principles of expert reliability embraced in the *Daubert* trilogy. This Section focuses on three key areas of continued division in the courts.

*A. Conflict over the Requirement that an Expert Reliably Apply His Principles and Methods to the Facts of the Case*

The 2000 amendments to Rule 702 were unquestionably intended to resolve any dispute over whether trial courts must screen out testimony that does not reliably apply the expert's principles and methods to the facts of the case. The Advisory Committee identified this requirement as one of its guiding principles from its very first meeting on the potential Rule amendment in the fall of 1997,<sup>143</sup> and it reemphasized the need for such judicial scrutiny at every stage of the amendment process.<sup>144</sup> The Advisory Committee codified this requirement in Rule 702(d), and it made clear in its 2000 Advisory Committee Notes that "[t]he amendment specifically provides that the trial court *must* scrutinize not only the principles and methods used by the expert, but also whether those principles and methods have been properly applied to the facts of the case."<sup>145</sup>

The requirement that an expert witness reliably apply his methodology to the facts is essential to a trial court's gatekeeping function.<sup>146</sup> The most reliable methodology can lead to nonsensical results if applied in an erroneous fashion. Indeed, it is the ability of experts to misuse seemingly reliable methods to reach a preordained result—and the danger of unfair prejudice, confusion of the

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143. See Advisory Comm. on Evidence Rules, Minutes of the Meeting of Oct. 20-21, 1997, at 6, <http://www.uscourts.gov/rules-policies/archives/meeting-minutes/advisory-committee-rules-evidence-october-1997> [<http://perma.cc/3J6H-TBMG>].

144. See DEC. 1, 1997 REPORT, *supra* note 69, at 4; Feb. 16, 1998 Memorandum, *supra* note 72, at 1, 7; MAY 1, 1998 REPORT, *supra* note 79, at 2; DEC. 1, 1998 REPORT, *supra* note 80, at 3; Mar. 1, 1999 Memorandum, *supra* note 82, at 47; Advisory Comm. on Evidence Rules, Minutes of the Meeting of Apr. 12-13, 1999, at 5, <http://www.uscourts.gov/rules-policies/archives/meeting-minutes/advisory-committee-rules-evidence-april-1999> [<http://perma.cc/K46G-CS2S>]; MAY 1, 1999 REPORT, *supra* note 28, at 7.

145. FED. R. EVID. 702 advisory committee's note to 2000 amendment (emphasis added).

146. See Joëlle Anne Moreno, *What Happens When Dirty Harry Becomes an (Expert) Witness for the Prosecution?*, 79 TUL. L. REV. 1, 11 n.48 (2004) (criticizing a federal court for "redefining the reliability of an expert's application of his methods to the facts, which should fall squarely within the judge's purview, as a question of 'persuasiveness,'" which goes only to weight).

issues, or misleading the jury from such scientifically cloaked evidence—that caused the Supreme Court to charge district courts with a gatekeeping responsibility.<sup>147</sup> As the Supreme Court explained in *Kumho Tire*, the issue before a trial court is not simply “the reasonableness *in general*” of an expert’s methodology but also the expert’s “particular method of analyzing the data thereby obtained, to draw a conclusion regarding *the particular matter to which the expert testimony was directly relevant*.”<sup>148</sup> Indeed, *Kumho Tire* expressly endorsed the Advisory Committee’s then-draft note on this issue in the proposed amendment to Rule 702, “stressing that district courts must scrutinize whether the principles and methods employed by an expert have been properly applied to the facts of the case.”<sup>149</sup>

Notwithstanding the clear intent—and the Supreme Court’s stated approval—of this requirement in Rule 702(d), a number of courts continue to insist that the review of an expert’s application of his methodology is beyond the scope of a court’s gatekeeping power. Most notably, in *SQM North America*, the Ninth Circuit recently held that a district court *abused its discretion* by excluding an expert for failing to reliably apply his stated methodology.<sup>150</sup> The Ninth Circuit held that the district court had erred because “*only a faulty methodology or theory*, as opposed to imperfect execution of laboratory techniques, is a valid basis to exclude expert testimony.”<sup>151</sup> The Ninth Circuit allowed that its holding was in conflict with the Third Circuit’s holding in *In re Paoli* that “any step that renders the analysis unreliable ... renders the expert’s testimony inadmissible ... whether the step completely changes a reliable

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147. See FED. R. EVID. 403. Given the existence of adversarial bias, there is no reason to expect that, left unsupervised by the courts, experts hired by the parties will present testimony that represents the range of opinions one would get by consulting nonpartisan experts. See David E. Bernstein, *Expert Witnesses, Adversarial Bias, and the (Partial) Failure of the Daubert Revolution*, 93 IOWA L. REV. 451, 452-58 (2008).

148. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 153-54 (1999); see also *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 144 (1997) (rejecting plaintiff’s contention that “the only issue [was] whether animal studies can ever be a proper foundation for an expert opinion”).

149. *Kumho Tire*, 526 U.S. at 156-57 (quoting Proposed FED. R. EVID. 702 advisory committee’s note, Preliminary Draft of Proposed Amendments to the Federal Rules of Civil Procedure and Evidence: Request for Comment, 181 F.R.D. 18, 148 (1998)).

150. *City of Pomona v. SQM N. Am. Corp.*, 750 F.3d 1036, 1048-49 (9th Cir. 2014).

151. *Id.* at 1048 (emphasis added) (citing *United States v. Chischilly*, 30 F.3d 1144, 1154 (9th Cir. 1994)).

methodology or merely misapplies that methodology.”<sup>152</sup> But the court concluded that Ninth Circuit law was to the contrary, citing an earlier ruling of that court from 1994.<sup>153</sup>

As previously discussed, *SQM North America* is the poster child for judicial disregard of the 2000 amendments to Rule 702.<sup>154</sup> Not only does it rely on an opinion that pre-dates the 2000 amendments, but it completely disregards the Advisory Committee’s Note to the 2000 amendments, which expressly endorses the exact “any step” approach from *In re Paoli* that the Ninth Circuit rejects.<sup>155</sup> Unfortunately, however, while many courts have properly excluded expert testimony that does not apply a potentially reliable methodology in a reliable manner,<sup>156</sup> *SQM North America* does not stand alone.

Just two weeks after the Supreme Court approved the amendments to Rule 702 in April 2000, the First Circuit affirmed a district court’s holding that “any flaws in [the expert’s] application of an otherwise reliable methodology went to weight and credibility and not to admissibility,” noting, without any acknowledgment to the pending Rule change, that “[m]ost circuits that have spoken have agreed with this approach.”<sup>157</sup> The Third Circuit went astray in an opinion in 2002 when it agreed with a defendant’s argument that “because [plaintiff] objected to the application rather than the legitimacy of [the expert’s] methodology, such objections were more

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152. *Id.* at 1047 (quoting *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 745 (3d Cir. 1994)). Other federal circuit courts properly have endorsed the “any steps” approach. *See Paz v. Brush Engineered Materials, Inc.*, 555 F.3d 383, 387-91 (5th Cir. 2009); *McClain v. Metabolife Int’l, Inc.*, 401 F.3d 1233, 1245 (11th Cir. 2005); *Dodge v. Cotter Corp.*, 328 F.3d 1212, 1222 (10th Cir. 2003); *Amorgianos v. Nat’l R.R. Passenger Corp.*, 303 F.3d 256, 267 (2d Cir. 2002) (quoting *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 746 (3d Cir. 1994)).

153. *SQM N. Am. Corp.*, 750 F.3d at 1047-48 (citing *United States v. Chischilly*, 30 F.3d 1144, 1154 & n.11 (9th Cir. 1994)).

154. *See supra* notes 32-33, 123-26 and accompanying text.

155. FED. R. EVID. 702 advisory committee’s note to 2000 amendment. Indeed, in an article published shortly after the 2000 amendments went into effect, the Committee Reporter, Professor Capra, pointed to *In re Paoli* and its “any step” analysis as having a “profound impact” on the drafting of amended Rule 702. Stephen A. Saltzburg, Edwin J. Imwinkelried, & Daniel J. Capra, *Keeping the Reformist Spirit Alive in Evidence Law*, 149 U. PA. L. REV. 1277, 1289-90 (2001).

156. *See, e.g., Kilpatrick v. Breg, Inc.*, 613 F.3d 1329, 1343 (11th Cir. 2010) (affirming exclusion of expert testimony for unreliable application of differential diagnosis methodology notwithstanding that differential diagnosis has been recognized as a valid and reliable methodology).

157. *United States v. Shea*, 211 F.3d 658, 668 (1st Cir. 2000) (citing *United States v. Johnson*, 56 F.3d 947, 952-53 (8th Cir. 1995)).

appropriately addressed on cross-examination and no *Daubert* hearing was required.”<sup>158</sup> The Eleventh Circuit likewise erred in a 2003 opinion in which the court found it “important to be mindful of a distinction ... between the reliability of [a methodology] generally and of [the expert’s] application of [the methodology] in this case”<sup>159</sup> and then rejected a *Daubert* challenge based on the latter, relying remarkably on a Supreme Court opinion that pre-dated *Daubert* by seven years.<sup>160</sup> And the Eighth Circuit has also “drawn a distinction between, on the one hand, challenges to a scientific methodology, and, on the other hand, challenges to the *application* of that scientific methodology.”<sup>161</sup> Relying on preamendment authority, the Eighth Circuit imposed an additional hurdle to challenges to an expert’s application of his method that is found nowhere in amended Rule 702: “[W]hen the *application* of a scientific methodology is challenged as unreliable under *Daubert* and the methodology itself is otherwise sufficiently reliable, outright exclusion of the evidence in question is warranted only if the methodology was so altered by a deficient application as to skew the methodology itself.”<sup>162</sup>

Surveying this and other authority, a federal district court in 2013 noted a split of authority, but concluded that “[w]ell-reasoned caselaw holds that a court should not review the application of a reliable methodology under the same *Daubert* analysis as the methodology itself.”<sup>163</sup> The court thus adopted what it called the “narrowest reading of *Daubert*,” under which “the trial judge decides the scientific validity of underlying principles and methodology” and that “once that validity is demonstrated, other reliability issues go to the weight—not the admissibility—of the evidence.”<sup>164</sup> Numerous other federal district courts likewise have squarely held that the reliability of an expert’s application of his methodology is an issue reserved solely for the jury.<sup>165</sup>

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158. *Walker v. Gordon*, 46 F. App’x 691, 696 (3d Cir. 2002).

159. *Quiet Tech. DC-8, Inc. v. Hurel-Dubois UK Ltd.*, 326 F.3d 1333, 1343 (11th Cir. 2003).

160. *Id.* at 1343-46.

161. *United States v. Gipson*, 383 F.3d 689, 696 (8th Cir. 2004).

162. *Id.* at 697 (alteration in original).

163. *United States v. McCluskey*, 954 F. Supp. 2d 1224, 1247-48 (D.N.M. 2013).

164. *Id.* at 1254 (quoting 29 CHARLES ALAN WRIGHT & VICTOR JAMES GOLD, FEDERAL PRACTICE AND PROCEDURE § 6266, at 289 (1997 & Supp. 2012)).

165. *See, e.g., Procter & Gamble Co. v. Haugen*, No. 1:95-CV-94 TS, 2007 WL 709298, at \*2 (D. Utah Mar. 5, 2007) (“Where the Court has determined that Plaintiffs have met their

These rulings cannot be reconciled with the clear language of Rule 702(d) requiring trial courts to determine that “the expert has reliably applied the principles and methods to the facts of the case.”<sup>166</sup> The Ninth Circuit’s express rejection in *SQM North America* of the “any step” approach to *Daubert* suggests, however, that some courts mistakenly believe they have discretion to admit expert testimony even if one or more of the four steps set forth in Rule 702 are not satisfied.<sup>167</sup> Rule 702 should be amended to correct this misimpression.

*B. Conflict over the Requirement that an Expert’s Testimony Be Based upon Facts that Reliably Support His Opinion*

The Supreme Court has repeatedly made clear that a trial court’s gatekeeping responsibility in screening unreliable expert testimony requires the court to assess the reliability of the factual foundations of such testimony. In *Daubert*, the Court explained that “the Rules of Evidence ... assign to the trial judge the task of ensuring that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand.”<sup>168</sup> The Court noted that “a judge assessing a proffer of expert scientific testimony under Rule 702 should also be mindful of [Rule 703],” which then provided—as it continues to provide today with only stylistic revision—“that expert opinions based on otherwise inadmissible hearsay are to be admitted only if the facts or data are ‘of a type reasonably relied upon by experts in

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burden of showing that the methodology is reliable, the expert’s application of the methodology and his or her conclusions are issues of credibility for the jury.”); *Oshana v. Coca-Cola Co.*, No. 04 C 3596, 2005 WL 1661999, at \*4 (N.D. Ill. July 13, 2005) (“Challenges addressing flaws in an expert’s application of reliable methodology may be raised on cross-examination.”); *United States v. Adam Bros. Farming*, No. CV-00-7409 CAS (RNBx), 2005 WL 5957827, at \*5 (C.D. Cal. Jan. 25, 2005) (“Defendants’ objections are to the accuracy of the expert’s application of the methodology, not the methodology itself, and as such are properly reserved for cross-examination.”).

166. FED. R. EVID. 702(d).

167. See also *McCluskey*, 954 F. Supp. 2d at 1247 (concluding that the “any step” requirement is directed solely at whether there is a sufficient connection between the conclusions and data, which is “a different issue from the level of scrutiny for reviewing the application of a reliable methodology”).

168. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 597 (1993).

the particular field in forming opinions or inferences upon the subject.”<sup>169</sup>

Four years later, in *Joiner*, the Court undertook its own detailed analysis of the reliability of the factual predicate of expert testimony, separately scrutinizing and finding unreliable the animal studies and four epidemiology studies upon which the plaintiffs’ experts based their opinion that PCBs caused small-cell lung cancer.<sup>170</sup> And in *Kumho Tire*, the Court stated that “where [an expert’s] testimony’s *factual basis, data, principles, methods, or their application* are called sufficiently into question ... the trial judge *must determine whether the testimony has ‘a reliable basis in the knowledge and experience of [the relevant] discipline.’*”<sup>171</sup> The Court thus reversed a circuit court opinion that had rejected a trial court’s exclusion of factually unfounded expert testimony.<sup>172</sup> In reinstating the trial court’s holding, the Court expressly upheld that court’s findings of faulty factual predicates to the expert’s opinion.<sup>173</sup>

It is clear that the Advisory Committee in its 2000 amendments likewise intended for trial courts to assess the reliability of the factual foundation of expert testimony.<sup>174</sup> The Committee believed, however, that proposed Rules 702(c), 702(d) and 703 adequately addressed the requirement of a reliable factual foundation. As Professor Capra stated, “it is hard to see what kind of unreliable basis of information might slip through the cracks.”<sup>175</sup> The Committee accordingly focused in Rule 702(b) on the quantitative question of whether expert testimony “is based on *sufficient* facts or data.”<sup>176</sup>

Fifteen years later, it is clear that this drafting decision was a mistake. Despite the direction in *Daubert* that Rule 702 be read in

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169. *Id.* at 595.

170. *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 144-46 (1997).

171. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 149 (1999) (emphasis added) (quoting *Daubert*, 509 U.S. at 592).

172. *Id.* at 154, 157-58.

173. *See id.* at 154 (expert opinion as to alleged tire defect predicated on the fact that the tire was not abused “despite some evidence of the presence of the very signs [of abuse] for which he looked (and two punctures)”; *id.* at 155 (pointing to expert’s statement that the remaining tread depth on the tire “‘was 3/32 inch,’ though the opposing expert’s (apparently undisputed) measurements indicate[d] that the tread depth taken at various positions around the tire actually ranged from .5/32 of an inch to 4/32 of an inch”) (citation omitted).

174. *See supra* note 31 and accompanying text.

175. *See* Mar. 1, 1999 Memorandum, *supra* note 82, at 31.

176. FED. R. EVID. 702(b) (emphasis added).

tandem with Rule 703, Rule 703 is frequently ignored in *Daubert* analyses. And, as noted above, many courts do not follow the plain language of Rule 702(d), let alone the Advisory Committee's intent that a trial court's review of the reliability of the application of an expert's methodology encompass a review of the expert's factual predicate. As a result, while many courts properly exclude expert testimony based upon a lack of a reliable factual foundation, other courts routinely allow such unfounded testimony to be admitted before the jury.

Cases from the Second, Third, and Sixth Circuits properly understand that Rule 702 requires trial courts to analyze the facts underlying expert testimony. As these circuits have explained, the "suggestion that the reasonableness of an expert's reliance on facts or data to form his opinion is somehow an inappropriate inquiry under Rule 702 results from an unduly myopic interpretation of Rule 702 and ignores the mandate of *Daubert* that the district court must act as a gatekeeper."<sup>177</sup> These cases properly recognize that:

In deciding whether a step in an expert's analysis is unreliable, the district court should undertake a rigorous examination of the facts on which the expert relies, the method by which the expert draws an opinion from those facts, and how the expert applies the facts and methods to the case at hand.<sup>178</sup>

Trial courts "may, indeed must, look beyond the conclusions [of the experts] to determine whether the expert testimony rests on a reliable foundation."<sup>179</sup> For these courts, "when an expert opinion is based on data, a methodology, or studies that are simply inadequate to support the conclusions reached, *Daubert* and Rule 702 mandate the exclusion of that unreliable opinion testimony."<sup>180</sup> Litigants are thus assured that "expert testimony based on assumptions lacking factual foundation in the record [will be] properly excluded."<sup>181</sup>

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177. *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254, 294 (3d Cir. 2012).

178. *Amorgianos v. Nat'l R.R. Passenger Corp.*, 303 F.3d 256, 267 (2d Cir. 2002).

179. *Kalamazoo River Study Grp. v. Rockwell Int'l Corp.*, 171 F.3d 1065, 1072 (6th Cir. 1999) (citing *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993)).

180. *Ruggiero v. Warner-Lambert Co.*, 424 F.3d 249, 255 (2d Cir. 2005) (quoting *Amorgianos*, 303 F.3d at 266).

181. *Meadows v. Anchor Longwall & Rebuild, Inc.*, 306 F. App'x 781, 790 (3d Cir. 2009).

Decisions from other circuit courts stand on the opposite side of this divide. Courts such as the First Circuit maintain that “[t]he soundness of the factual underpinnings of the expert’s analysis and the correctness of the expert’s conclusions based on that analysis are factual matters to be determined by the trier of fact.”<sup>182</sup> District courts are instructed that “[t]he reliability of data and assumptions used in applying a methodology is tested by the adversarial process and determined by the jury; the court’s role is generally limited to assessing the reliability of the methodology—the framework—of the expert’s analysis.”<sup>183</sup> Fatally misconstruing *Daubert*, these courts have concluded that “the factual basis of an expert opinion goes to the credibility of the testimony, not the admissibility, and it is up to the opposing party to examine the factual basis for the opinion in cross-examination.”<sup>184</sup> Indeed, these courts have held that “[t]he district court usurps the role of the jury, and therefore *abuses its discretion*, if it unduly scrutinizes the quality of the expert’s data and conclusions rather than the reliability of the methodology the expert employed.”<sup>185</sup>

These latter courts’ disregard of their gatekeeping responsibility to screen out expert testimony lacking a reliable factual foundation indicates that the current language of Rules 702 and 703 is insufficient to fulfill the mandate of the *Daubert* trilogy. Rule 702(b) should be amended to clarify this reliability requirement.

Moreover, the 2000 amendments to Rule 702(b) have been ineffective in securing a consistent quantitative analysis of the facts underlying an expert opinion. In requiring that expert testimony be based on “sufficient facts or data,” the Advisory Committee intended, at the very least, to ensure that an expert “had not excluded something from his consideration that he should have included.”<sup>186</sup> But many federal courts have allowed expert witnesses to ignore the

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182. *Milward v. Acuity Specialty Prods. Grp.*, 639 F.3d 11, 22 (1st Cir. 2011) (quoting *Smith v. Ford Motor Co.*, 215 F.3d 713, 718 (7th Cir. 2000)).

183. *Manpower, Inc. v. Ins. Co. of Pa.*, 732 F.3d 796, 808 (7th Cir. 2013).

184. *Bonner v. ISP Techs., Inc.*, 259 F.3d 924, 929 (8th Cir. 2001) (quoting *Hose v. Chi. Nw. Transp. Co.*, 70 F.3d 968, 974 (8th Cir. 1996)).

185. *Manpower, Inc.*, 732 F.3d at 806 (emphasis added) (citing *Stollings v. Ryobi Techs., Inc.*, 725 F.3d 753, 765 (7th Cir. 2013)).

186. Mar. 1, 1999 Memorandum, *supra* note 82, at 32.

scientific method and consider only studies or other data that support their side's case.<sup>187</sup>

When an expert witness selectively considers scientific studies that support one party's theory of the case, while ignoring—without adequate explanation—studies that contradict his conclusion, that expert is not engaging in objective scientific analysis, but is instead acting in a biased, partisan manner. Given that expert witnesses are hired by parties to litigation, it is safe to assume that in most cases experts who engage in such cherry-picking are trying to reach a predetermined result favored by their employer, and thus are acting not as experts but as advocates.

Some courts have recognized the impropriety of experts cherry-picking favorable information and ignoring the contrary when analyzing an issue, even before the 2000 amendments to Rule 702. For example, in *Lust v. Merrell Dow Pharmaceuticals, Inc.*, the court affirmed the exclusion of testimony by an expert who “[saw] fit to ‘pick and chose’ [sic] from the scientific landscape and present the Court with what he believes the final picture looks like. This is hardly scientific.”<sup>188</sup>

A series of post-2000 decisions similarly rejected expert testimony when the expert seemed to assume a conclusion, and then selectively relied on studies supporting that conclusion, while ignoring contrary data.<sup>189</sup> As district court Judge Lewis Kaplan explained,

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187. See *infra* notes 191-94 and accompanying text.

188. 89 F.3d 594, 596 (9th Cir. 1996).

189. See, e.g., *EEOC v. Freeman*, 798 F.3d 463, 466-67 (4th Cir. 2015); *Bricklayers & Trowel Trades Int'l Pension Fund v. Credit Suisse Sec. (USA) LLC*, 752 F.3d 82, 92 (1st Cir. 2014); *Rimbert v. Eli Lilly & Co.*, 647 F.3d 1247, 1252 (10th Cir. 2011), *aff'g and remanding on other grounds* No. Civ 06-0874 JCH/LFG, 2009 WL 2208570, at \*13 (D.N.M. July 21, 2009) (“Even more damaging ... is [the expert's] failure to grapple with any of the myriad epidemiological studies that refute her conclusion.”); *Greater New Orleans Fair Hous. Action Ctr. v. U.S. Dep't of Hous. & Urban Dev.*, 639 F.3d 1078, 1086 (D.C. Cir. 2011); *Miller v. Pfizer, Inc.*, 356 F.3d 1326, 1335 (10th Cir. 2004) (upholding the exclusion of testimony by an expert witness who failed to explain why he ignored research contrary to his conclusion); *Barber v. United Airlines, Inc.*, 17 F. App'x 433, 437 (7th Cir. 2001) (“[S]elective use of facts fails to satisfy the scientific method and *Daubert*.”); *In re Denture Cream Prods. Liab. Litig.*, No. 09-2051-MD, 2015 WL 392021, at \*26 (S.D. Fla. Jan. 28, 2015) (rejecting expert opinion derived from “cherry-picked data and flawed methodology”); *In re Zoloft (Sertraline Hydrochloride) Prods. Liab. Litig.*, No. 12-md-2342, 2015 WL 314149, at \*3 (E.D. Pa. Jan. 23, 2015) (rejecting expert opinion based on “the cherry-picking of studies and data within studies”); *Reed Constr. Data Inc. v. McGraw-Hill Cos.*, 49 F. Supp. 3d 385, 400 (S.D.N.Y. 2014) (holding that “[w]hen constructing a benchmark statistic [for purposes of an expert's regression analysis], the

“[A]ny theory that fails to explain information that otherwise would tend to cast doubt on that theory is inherently suspect,” and “courts have excluded expert testimony ‘where the expert selectively chose his support from the scientific landscape.’”<sup>190</sup>

As the initial wave of post-*Daubert* publicity about the courts’ gatekeeping role has worn off, however, courts have increasingly allowed experts to cherry-pick studies. In 2012, for example, the Eighth Circuit reversed a trial court that excluded the testimony of an expert who offered an opinion that ignored contrary studies—not to mention the witness’s own past opinions.<sup>191</sup> The court acknowledged that the expert ignored several studies supporting the defendant’s contrary position, but concluded that “it is not the province of the court to choose between the competing theories when both are supported by reliable scientific evidence.”<sup>192</sup> The court thus confused “choosing between competing theories” with ensuring that an expert has reached his conclusion by fairly considering all of the relevant evidence, rather than starting with the conclusion and looking for evidence supporting it.

Other courts have taken an even more explicitly hands-off approach to disputes over whether expert witnesses have improperly discounted or ignored studies that might undermine their

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regression analyst may not ‘cherry-pick’ the time-frame or data points”) (citing *Bricklayers*, 752 F.3d at 89); *Fail-Safe, LLC v. A.O. Smith Corp.*, 744 F. Supp. 2d 870, 889 (E.D. Wis. 2010) (“In fact, it is readily apparent that [the expert] all but ‘cherry picked’ the data he wanted to use, providing the court with another strong reason to conclude that the witness utilized an unreliable methodology.”) (citing *Barber*, 17 F. App’x at 437); *In re Bausch & Lomb, Inc. Contact Lens Prods. Lia. Litig.*, No. 2:06-MN-77777-DCN, 2009 WL 2750462, at \*14 (D.S.C. 2009) (holding that “failure to address ... contrary data renders plaintiffs’ theory inherently unreliable”); *In re Bextra & Celebrex Mktg. Sales Practices & Prod. Liab. Litig.*, 524 F. Supp. 2d 1166, 1176, 1179 (N.D. Cal. 2007) (deploring cherry-picking of an expert who “ignores the vast majority of the evidence in favor of the few studies that support her conclusion”); *LeClercq v. Lockformer Co.*, No. 00 C 7164, 2005 WL 1162979, at \*4 (N.D. Ill. Apr. 28, 2005) (noting that “cherry-pick[ing]” and otherwise “selective use of facts fail[s] to satisfy the scientific method and *Daubert*”) (second alteration in original); *Holden Metal & Aluminum Works, Ltd. v. Wismarq Corp.*, No. 00 C 0191, 2003 WL 1797844, at \*2 (N.D. Ill. Apr. 3, 2003) (“Essentially, the expert ‘cherry-picked’ the facts he considered to render his opinion, and such selective use of facts failed to satisfy the scientific method and *Daubert*.”) (citing *Barber*, 17 F. App’x at 437).

190. *In re Rezulin Prods. Liab. Litig.*, 369 F. Supp. 2d 398, 425 (S.D.N.Y. 2005) (quoting *Carnegie Mellon Univ. v. Hoffman-LaRoche, Inc.*, 55 F. Supp. 2d 1024, 1039 (N.D. Cal. 1999)).

191. *Kuhn v. Wyeth, Inc.*, 686 F.3d 618, 633 (8th Cir. 2012).

192. *Id.*; accord *In re NuvaRing Prods. Liab. Litig.*, No. 4:08-MD-1964 RWS, 2013 WL 791787, at \*2-3 (E.D. Mo. Mar. 4, 2013).

conclusions. An Alabama district court judge, for example, asserted that why an expert “chose to include or exclude data from specific clinical trials is a matter for cross-examination, not exclusion under *Daubert*.”<sup>193</sup> Other federal courts have made similar pronouncements.<sup>194</sup>

*C. Conflict over the Requirement that an Expert’s Methodology Be Objectively Testable*

In *Daubert*, the Supreme Court held that scientific testimony is not admissible unless it is based on “scientific knowledge.”<sup>195</sup> The Court explained that “[t]he adjective ‘scientific’ implies a grounding in the methods and procedures of science. Similarly, the word ‘knowledge’ connotes more than subjective belief or unsupported speculation.”<sup>196</sup> The Court then gave guidance on how trial courts, as gatekeepers, should determine whether an expert’s testimony constitutes scientific knowledge: “[I]n order to qualify as ‘scientific knowledge,’ an inference ... must be derived by the scientific method.”<sup>197</sup> The Court defined the scientific method as follows: “Scientific methodology today is based on generating hypotheses and testing them to see if they can be falsified; indeed, this methodology is what distinguishes science from other fields of human inquiry.”<sup>198</sup> Thus,

193. *In re Chantix (Varenicline) Prods. Liab. Litig.*, 889 F. Supp. 2d 1272, 1288 (N.D. Ala. 2012).

194. *See, e.g., In re Celexa & Lexapro Prods. Liab. Litig.*, 927 F. Supp. 2d 758, 763 (E.D. Mo. 2013) (declining to decide whether plaintiffs’ expert engaged in improper cherry-picking when he relied on certain studies to the exclusion of others, holding instead that this is an issue for cross-examination); *In re Urethane Antitrust Litig.*, No. 04-1616-JWL, 2012 WL 6681783, at \*3 (D. Kan. Dec. 21, 2012), *aff’d*, 768 F.3d 1245 (10th Cir. 2014) (“The extent to which [an expert] considered the entirety of the evidence in the case is a matter for cross-examination.”); *Rich v. Taser Int’l, Inc.*, No. 2:09-CV-02450-ECR-RJJ, 2012 WL 1080281, at \*6 (D. Nev. Mar. 30, 2012) (holding that which studies an expert chooses to rely upon is an issue for cross-examination, not admissibility); *Bouchard v. Am. Home Prods. Corp.*, No. 3:98 CV 7541, 2002 WL 32597992, at \*7 (N.D. Ohio May 24, 2002) (“If [the plaintiff] believes that [the expert] ... ignored evidence that would have required him to substantially change his opinion, that is a fit subject for cross-examination, not a grounds for wholesale rejection of the expert opinion.”).

195. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589-90 (1993).

196. *Id.* at 590.

197. *Id.*

198. *Id.* at 593 (quoting Michael D. Green, *Expert Witnesses and Sufficiency of Evidence in Toxic Substances Litigation: The Legacy of Agent Orange and Bendectin Litigation*, 86 NW. U. L. REV. 643, 645 (1992)). The Supreme Court cited two philosophical texts on the nature of

the Court explained, “a key question to be answered in determining whether a theory or technique is scientific knowledge that will assist the trier of fact will be whether it can be (and has been) tested.”<sup>199</sup>

The Supreme Court provided further clarification on the importance of testability in *Joiner*.<sup>200</sup> In *Joiner*, the district court excluded plaintiffs’ experts’ opinions that PCBs could cause lung cancer after carefully reviewing and rejecting as scientifically unreliable each of the individual pieces of evidence upon which the experts relied.<sup>201</sup> The Eleventh Circuit then reversed, holding that the district court abused its discretion in failing to credit the experts’ testimony that the weight of these individually unreliable pieces of evidence provided a scientifically reliable whole.<sup>202</sup> The Eleventh Circuit explained:

Opinions of any kind are derived from individual pieces of evidence, each of which by itself might not be conclusive, but when viewed in their entirety are the building blocks of a perfectly reasonable conclusion, one reliable enough to be submitted to a jury along with the tests and criticisms cross-examination and contrary evidence would supply.<sup>203</sup>

The Eleventh Circuit did not offer any objective means by which the experts’ purported weighing of the evidence could be tested. Rather, under the Eleventh Circuit’s reasoning, the district court was required to simply accept the expert’s assurances that he had weighed the evidence in a scientifically reliable manner.

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scientific evidence. See *id.* (citing C. HEMPEL, PHILOSOPHY OF NATURAL SCIENCE 49 (1966) (“[T]he statements constituting a scientific explanation must be capable of empirical test.”); K. POPPER, CONJECTURES AND REFUTATIONS: THE GROWTH OF SCIENTIFIC KNOWLEDGE 37 (5th ed. 1989) (“[T]he criterion of the scientific status of a theory is its falsifiability, or refutability, or testability.”)).

199. *Id.*; see also Joe G. Hollingsworth & Eric G. Lasker, *The Case Against Differential Diagnosis: Daubert, Medical Causation Testimony, and the Scientific Method*, 37 J. HEALTH L. 85, 89-97 (2004) (analyzing the testability of various types of scientific evidence proffered as support for general or specific causation expert testimony).

200. See *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 145-47 (1997).

201. See *Joiner v. Gen. Elec. Co.*, 864 F. Supp. 1310, 1319-27 (N.D. Ga. 1994), *rev’d*, 78 F.3d 524 (11th Cir. 1996), *rev’d*, 522 U.S. 136 (1997).

202. *Joiner v. Gen. Elec. Co.*, 78 F.3d 524, 532-34 (11th Cir. 1996), *rev’g* 864 F. Supp. 1310 (N.D. Ga. 1994), *rev’d*, 522 U.S. 136 (1997).

203. *Id.* at 532.

By an eight-to-one majority, the Supreme Court reversed.<sup>204</sup> Expressly affirming the district court's approach, the Court tested each of the individual pieces of scientific evidence relied on by plaintiffs' experts for scientific reliability and relevance and found them lacking.<sup>205</sup> The Court squarely rejected the Eleventh Circuit's "weight of the evidence" argument, holding that "it was within the District Court's discretion to conclude that the studies upon which the experts relied were not sufficient, *whether individually or in combination*, to support their conclusions that Joiner's exposure to PCBs contributed to his cancer."<sup>206</sup> As the Court famously explained, "nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert."<sup>207</sup> Justice Stevens, dissenting, argued to the contrary that "a 'weight of the evidence' methodology was scientifically acceptable," but he was unable to garner the support of any other member of the Court.<sup>208</sup>

The 2000 amendments did not alter Rule 702's existing requirement that scientific testimony must be based on "scientific knowledge," and there is no indication in the Advisory Committee's deliberations that it had any intent to move away from the Supreme Court's understanding of that term as requiring a scientific expert's opinion to be derived from the scientific method. To the contrary, by expressly siding with courts that had read *Daubert* as mandating "a rigorous exercise requiring the trial court to scrutinize, in detail, the expert's basis, methods, and application,"<sup>209</sup> the Advisory Committee no doubt anticipated that the "key issue" of testability would continue to guide the *Daubert* analysis. The Advisory Committee decided,

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204. See *Joiner*, 522 U.S. at 137-38.

205. See *id.* at 145-47.

206. *Id.* at 146-47 (emphasis added).

207. *Id.* at 146.

208. *Id.* at 153 (Stevens, J., concurring in part and dissenting in part). In *Kumho Tire*, the Supreme Court allowed that the "scientific method" analysis in *Daubert* might not be applicable to certain types of experienced-based, nonscientific expert testimony. See *Kumho Tire v. Carmichael*, 526 U.S. 137, 151 (1999). The Court established a different means by which trial courts may objectively test such testimony: whether the expert "employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Id.* at 152. The Court noted, moreover, that "a trial court should consider the specific factors identified in *Daubert* where they are reasonable measures of the reliability of expert testimony." *Id.*

209. MAY 1, 1999 REPORT, *supra* note 28, at 47.

however, not to delineate specific standards that courts must employ in regulating expert testimony, and it did not add any specific language about the scientific method or testability to amended Rule 702.<sup>210</sup>

This decision arguably opened the door for a renewed assault on the scientific methodology requirement for the admission of scientific testimony. In 2003, the toxic tort plaintiffs' bar used money from a fund established as part of the silicone breast implant litigation settlement to sponsor a conference in Coronado, California, that resulted in a slew of policy papers excoriating the *Daubert* gatekeeping requirement.<sup>211</sup> One paper argued that "the confusions, misconceptions, and attempts to fuse contradictory philosophies" in *Daubert* "is a cautionary tale of what happens when lay people try to opine on technical matters of another discipline, in this case jurists holding forth on the philosophy of science."<sup>212</sup> Another paper argued that "*Daubert* rests on serious misconceptions about the nature of science, the goals of legal fact-finding, and the role of the judiciary."<sup>213</sup> A third described the Court's *Daubert* ruling as "muddled" and castigated the Court's opinion in *Joiner*, saying "the Court sounded like nothing so much as a conclave of medieval logicians."<sup>214</sup> The papers repeatedly attributed to the Court some nefarious scheme to improperly stack the deck in favor of defendants:

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210. See DEC. 1, 1997 REPORT, *supra* note 69, at 4.

211. See David Michaels, *Scientific Evidence and Public Policy*, 95 AM. J. PUB. HEALTH S1, S5 (2005). Three more conferences followed. See David Michaels & Neil Vidmar, *Foreword*, 72 LAW & CONTEMP. PROBS. i, ii (2009) ("SKAPP has convened four Coronado Conferences. At each one a group of distinguished scientists, philosophers of science, judges, and policy experts presented papers and discussed issues at the intersection of science, law, and public policy."). The irony in this funding source cannot be ignored. In the 1980s and 1990s, Dow Corning was sued in multiple class action lawsuits because of the alleged adverse systemic health effects of its silicone breast implants, allegations that had no basis in sound science. See David E. Bernstein, *The Breast Implant Fiasco*, 87 CAL. L. REV. 457, 471-72 (1999) (book review). In 1998, these lawsuits resulted in a multi-billion-dollar settlement that forced Dow Corning into bankruptcy. When opt-out plaintiffs tried to pursue these same claims in court, however, their causation experts were excluded under *Daubert* because they could not present any scientifically reliable evidence that the breast implants caused any systemic injury whatsoever. See, e.g., *Allison v. McGhan Med. Corp.*, 184 F.3d 1300, 1309-22 (11th Cir. 1999).

212. David Ozonoff, *Epistemology in the Courtroom: A Little "Knowledge" Is a Dangerous Thing*, 95 AM. J. PUB. HEALTH S13, S13 (2005).

213. Sheila Jasanoff, *Law's Knowledge: Science for Justice in Legal Settings*, 95 AM. J. PUB. HEALTH S49, S49 (2005).

214. Susan Haack, *Trial and Error: The Supreme Court's Philosophy of Science*, 95 AM. J. PUB. HEALTH S66, S69 (2005).

“The *Daubert* litigation thus gave the Supreme Court an opportunity to stem the increasing flow of resource-intensive toxic tort lawsuits through a politically invisible interpretation of the words ‘scientific and knowledge’ in the obscure Federal Rules of Evidence.”<sup>215</sup>

These attacks bore fruit in 2011, when the First Circuit issued its ruling in *Milward v. Acuity Specialty Products Group, Inc.*, allowing an expert to opine as to the cause of one plaintiff’s acute promyelocytic leukemia based upon the same “weight of the evidence” methodology that the Supreme Court had rejected in *Joiner*.<sup>216</sup> The links between the Coronado Conference and the *Milward* opinion are unambiguous. In defending the plaintiffs’ expert’s “weight of the evidence” methodology, the First Circuit expressly relied on: (1) a Coronado Conference paper by Sheldon Krinsky (upon which plaintiffs’ causation expert also had relied),<sup>217</sup> which criticized *Daubert* for adopting a “corpuscular approach to expert testimony,”<sup>218</sup> and (2) plaintiffs’ “methodology expert,” Dr. Cranor,<sup>219</sup> who had contributed his own paper at the Coronado Conference in which he argued that “[t]he Court’s opinion in *Joiner* risks misleading lower courts, inviting similar mistaken rejections of particular evidence or having a chilling effect on efforts to review scientific evidence in the same way that scientists do.”<sup>220</sup>

The First Circuit’s own description of the “weight of the evidence” methodology should have ensured the exclusion of the causation expert’s testimony. The First Circuit explained that the plaintiffs’ expert’s “‘weight of the evidence’ approach to making causal determinations involves a mode of logical reasoning often described as

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215. Thomas O. McGarity, *Daubert and the Proper Role for the Courts in Health, Safety, and Environmental Regulation*, 95 AM. J. PUB. HEALTH S92, S94 (2005).

216. See 639 F.3d 11, 17-18 (1st Cir. 2011).

217. See *id.* at 17 & n.5 (citing Sheldon Krinsky, *The Weight of Scientific Evidence in Policy and Law*, 95 AM. J. PUB. HEALTH S129, S129 (2005)).

218. Sheldon Krinsky, *The Weight of Scientific Evidence in Policy and Law*, 95 AM. J. PUB. HEALTH S129, S134 (2005) (quoting Thomas O. McGarity, *Proposal for Linking Culpability and Causation to Ensure Corporate Accountability for Toxic Risks*, 26 WM. & MARY ENVTL. L. & POL’Y REV. 1, 18 (2001)).

219. See *Milward*, 639 F.3d at 17-18.

220. Carl Cranor, *Scientific Inferences in the Laboratory and the Law*, 95 AM. J. PUB. HEALTH S121, S123 (2005).

‘inference to the best explanation,’ in which the conclusion is not guaranteed by the premises.”<sup>221</sup> The First Circuit continued:

Unlike a logical inference made by deduction where one proposition can be logically inferred from other known propositions, and unlike induction where a general conclusion can be inferred from a range of known particulars, inference to the best explanation—or ‘abductive inferences’—are drawn about a particular proposition or event by a process of eliminating all other possible conclusions to arrive at the most likely ... one that best explains the available data.<sup>222</sup>

This methodology does not describe the derivation of scientific knowledge; it describes the process of generating hypotheses. As the First Circuit itself recognized, “[n]o scientific methodology exists for this process.”<sup>223</sup>

The First Circuit’s admission of this “weight of the evidence” testimony blatantly disregarded *Daubert*’s admonition that expert testimony must be derived by the scientific method, in other words, “based on generating hypotheses and testing them to see if they can be falsified.”<sup>224</sup> Although a trial court may—as the district court did in *Milward* and the Supreme Court did in *Joiner*—review individual lines of scientific evidence to determine whether they meet this admissibility threshold, there is no way for a court to so evaluate the “weight of the evidence” approach followed by the *Milward* expert.<sup>225</sup> As the First Circuit acknowledged, this purported “weighing” of scientific evidence cannot be tested, it cannot be falsified, and it cannot be validated against known or potential rates of error.<sup>226</sup> Ultimately, then, the court is left with nothing but the expert’s *ipse dixit* assurances that he has weighed the evidence in a scientifically appropriate manner.

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221. *Milward*, 639 F.3d at 17 (quoting *Bitler v. A.O. Smith Corp.*, 391 F.3d 1114, 1124 n.5 (10th Cir. 2004)).

222. *Id.* at 17 n.7 (quoting *Bitler v. A.O. Smith Corp.*, 391 F.3d 1114, 1124 n.5 (10th Cir. 2004)).

223. *Id.* at 18.

224. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 593 (1993).

225. *See id.*

226. *See id.*

*Milward* was incorrectly decided and should be overruled.<sup>227</sup> To the extent the First Circuit declines to do so, the holding should be limited to its facts.<sup>228</sup> Fortunately, *Milward's* endorsement of the “weight of the evidence” methodology remains a minority position.<sup>229</sup> The plaintiffs’ bar, however, is aggressively seeking to promote the *Milward* reasoning more broadly.<sup>230</sup> Shortly after the *Milward* opinion was issued, the American Association for Justice (previously known as the Association of Trial Lawyers of America) promoted a symposium, the purpose of which was to gain academic traction for the weight-of-the-evidence approach as an alternative to *Daubert*.<sup>231</sup> And a handful of courts have now cited *Milward* as support for the admission of similarly untestable expert testimony.<sup>232</sup> Rule 702 should be amended to put a stop to this abdication of the *Daubert* gatekeeping responsibility.

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227. For an exhaustive look at the various errors that the *Milward* court made, see Bernstein, *supra* note 5, at 58-66.

228. See Eric Lasker, *Manning the Daubert Gate: A Defense Primer in Response to Milward v. Acuity Specialty Products*, 79 DEF. COUNS. J. 128, 128 (2012). Indeed, in a recent opinion, the First Circuit appeared to have distanced itself from *Milward's* reasoning. See *Bricklayers & Trowel Trades Int'l Pension Fund v. Credit Suisse Sec. (USA) LLC*, 752 F.3d 82, 95 (1st Cir. 2014).

229. See *Allen v. Pa. Eng'g Corp.*, 102 F.3d 194, 198 (5th Cir. 1996) (“We are also unpersuaded that the ‘weight of the evidence’ methodology these experts use is scientifically acceptable for demonstrating a medical link between Allen’s EtO exposure and brain cancer.”); see also *Hollander v. Sandoz Pharm. Corp.*, 289 F.3d 1193, 1216 n.21 (10th Cir. 2002); *Magistrini v. One Hour Martinizing Dry Cleaning*, 180 F. Supp. 2d 584, 608 (D.N.J. 2002); *Caraker v. Sandoz Pharm. Corp.*, 188 F. Supp. 2d 1026, 1040 (S.D. Ill. 2001); *Siharath v. Sandoz Pharm. Corp.*, 131 F. Supp. 2d 1347, 1371 (N.D. Ga. 2001), *aff'd sub nom. Rider v. Sandoz Pharm. Corp.*, 295 F.3d 1194 (11th Cir. 2002); *Merck & Co. v. Garza*, 347 S.W.3d 256, 268 (Tex. 2011); *Estate of George v. Vt. League of Cities & Towns*, 993 A.2d 367, 379-80 (Vt. 2010).

230. See *infra* note 231-32 and accompanying text.

231. Nathan A. Schachtman, *Milward Symposium Organized by Plaintiffs’ Counsel and Witnesses* (Feb. 13, 2013, 7:23 AM), <http://schachtmanlaw.com/milward-symposium-organized-by-plaintiffs-counsel-and-witnesses> [<http://perma.cc/PW2V-X7TK>].

232. See *In re Fosamax (Alendronate Sodium) Prods. Liab. Litig.*, Nos. 11-5304, 08-08, 2013 WL 1558690, at \*4 (D.N.J. Apr. 10, 2013); *Harris v. CSX Transp., Inc.*, 753 S.E.2d 275, 287-89, 301-02 (W. Va. 2013). Remarkably, *Harris* also cites to Justice Stevens’s dissenting opinion in *Joiner* in support of the weight of the evidence approach without any mention of the eight-justice majority opinion to the contrary. 753 S.E.2d at 288-89.

## IV. A PROPOSED AMENDMENT TO RULE 702

Notwithstanding the rulemaking efforts of the Judicial Conference, the courts remain as divided over *Daubert*'s meaning today as they were in the 1990s.<sup>233</sup> Wayward courts continue to admit expert testimony based upon misapplied methodologies, unreliable factual foundations, and untestable *ipse dixit*.<sup>234</sup> As a result, the judicial gatekeeping responsibility set forth in the *Daubert* trilogy—and purportedly cemented with the 2000 amendments to Rule 702—is being eroded.<sup>235</sup>

The Supreme Court is ill-positioned to solve this problem. The Court can decide only issues in the context of specific cases, and even if a case cleanly presents one of the many conflicts that have arisen over *Daubert*, the other conflicts would remain.<sup>236</sup> Moreover, the Court generally is loath to grant certiorari only to affirm to lower courts that it meant what it said in an earlier opinion (as would have been the case in *SQM North America*).<sup>237</sup>

The answer lies instead with the Judicial Conference. The 2000 amendments to Rule 702 were well-intentioned and—but for the active resistance of certain courts, plaintiffs' counsel, and like-minded academics—should have led to the uniform exclusion of unreliable expert testimony in the federal courts.<sup>238</sup> As a leading commentator on the Federal Rules of Evidence has noted, however, “even when the draft of a set of court rules has been subjected to intense, prolonged scrutiny, regular monitoring is still necessary.”<sup>239</sup>

The drafters may be too close to their linguistic work product to recognize latent ambiguities, and unanticipated developments

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233. See *supra* text accompanying notes 37-42.

234. See *supra* Part III.

235. See *supra* text accompanying notes 24-34.

236. See Lasker, *supra* note 228, at 128.

237. See Edward R. Becker & Aviva Orenstein, *The Federal Rules of Evidence After Sixteen Years—The Effect of “Plain Meaning” Jurisprudence, the Need for an Advisory Committee on the Rules of Evidence, and Suggestions for Selective Revision of the Rules*, 60 GEO. WASH. L. REV. 857, 911 (1992).

238. See *supra* text accompanying notes 28-31.

239. Edward J. Imwinkelried, *The Golden Anniversary of the “Preliminary Study of the Advisability and Feasibility of Developing Uniform Rules of Evidence for the Federal Courts”: Mission Accomplished?*, 57 WAYNE L. REV. 1367, 1384 (2011).

can force the courts to apply the statutory texts to unforeseen factual settings. No matter how earnestly the drafting committee has discharged its task, when the draft is promulgated monitoring and revision mechanisms should be put in place.<sup>240</sup>

As the foregoing discussion demonstrates, fifteen years of experience under amended Rule 702 teaches that revisions to the Rule are needed. These revisions need not involve wholesale changes. To the contrary, each of the three conflicts discussed above could be resolved through the following simple amendments to the current Rule:

Rule 702. Testimony by Expert Witnesses<sup>241</sup>

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 *the testimony satisfies each of the following requirements:*

- (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;
- (b) the testimony is based on ~~sufficient~~ facts or data *that reliably support the expert's opinion;*
- (c) the testimony is the product of reliable *and objectively reasonable* principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case *and reached his conclusions without resort to unsupported speculation.*

*Appeals of district court decisions under this Rule are considered under the abuse-of-discretion standard. Such decisions are evaluated with the same level of rigor regardless of whether the district court admitted or excluded the testimony in question.*

*This Rule supersedes any preexisting precedent that conflicts with any or all sections of this Rule.*

The first proposed language change would move the *In re Paoli* “any step” standard from the current Advisory Committee Note to

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<sup>240</sup>. *Id.*

<sup>241</sup>. Additions marked by italicized text; deletions marked by strikethrough.

the text of the Rule, immediately prior to the listing of the four subsection admissibility requirements. Although the Supreme Court has held that judges may consult an Advisory Committee Note as a useful guide to the meaning of a federal rule,<sup>242</sup> the Note is not part of the Rule itself and does not have the force of law.<sup>243</sup> The Ninth Circuit's ruling in *SQM North America* makes clear that the current endorsement of *In re Paoli* in the Advisory Committee Note is insufficient.<sup>244</sup> By explicitly requiring trial courts to address each of the four steps in Rule 702, the revised Rule would unambiguously reject the looser standard in place in the Ninth Circuit and would preclude courts in the future from ignoring the mandate in subsection (d) that an expert reliably apply his methodology to the facts of the case.<sup>245</sup> The proposed amendment would also incorporate *Daubert's* express rejection of "unsupported speculation"<sup>246</sup> at the end of subsection (d), and would incorporate into the language of the Rule the holding in *Joiner* that "conclusions and methodology are not entirely distinct from one another."<sup>247</sup>

The second proposed language change would place the reliability requirement for an expert's factual predicate squarely within Rule 702(b), rather than counting on trial courts to read such a requirement from a combination of Rules 702(b), 702(c) and Rule 703. At the same time, the proposed language would address the concern that some commentators raised in connection with the 2000 amendments—that the trial court not intrude upon the province of the jury to weigh the credibility of facts—by clarifying where the trial court's scrutiny should be directed.<sup>248</sup> The question under *Daubert* is not whether a specific fact is true or false.<sup>249</sup> That determination is properly left for the jury.<sup>250</sup> Rather, the question is whether a specific

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242. See *Corley v. United States*, 556 U.S. 303, 321 (2009).

243. See *United States v. Bainbridge*, 746 F.3d 943, 947 (9th Cir. 2014); see also *Tome v. United States*, 513 U.S. 150, 168 (1995) (Scalia, J., concurring) ("[T]he Notes cannot, by some power inherent in the draftsmen, change the meaning that the Rules would otherwise bear.").

244. See *City of Pomona v. SQM N. Am. Corp.*, 750 F.3d 1036, 1041, 1047-48 (9th Cir. 2014).

245. See FED. R. EVID. 702(d).

246. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 590 (1993).

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

248. See *supra* notes 28-31, 89 and accompanying text.

249. See *Daubert*, 509 U.S. at 590.

250. See *id.* at 596.

fact, or set of facts, provides a reliable basis for an expert opinion.<sup>251</sup> This question involves both a qualitative component—whether this is the type of fact upon which experts in the field would reasonably rely<sup>252</sup>—and a quantitative assessment—whether the expert considered enough of the relevant facts to reliably opine.<sup>253</sup> Thus, for example, the proven facts that a river is contaminated and that the same toxin is present at an industrial plant several thousand feet from the river’s edge do not, without more, provide a reliable basis for an expert to opine that the contaminant in the river came from the plant.<sup>254</sup> Likewise, the proven fact that a mouse injected with a massive dose of a chemical gets cancer does not provide a reliable foundation for an opinion that the chemical can cause cancer through lower-dose exposures in humans.<sup>255</sup>

The third proposed language change would incorporate the Supreme Court’s requirement of scientific methodology into the text of Rule 702(c). Absent some objective means of testing an expert’s methodology, a trial court is left with nothing but its view of the credibility of an expert’s *ipse dixit*, an assessment that, as a general matter, is outside the proper scope of a court’s gatekeeping authority.<sup>256</sup> The requirement of objective testability, by contrast, will provide an independent standard by which courts can make consistent rulings on the admissibility of expert testimony. Of course, the nature of this objective testing will depend upon the nature of the expert testimony. If the expert testifies as to scientific knowledge, his methodology should be testable according to the dictates of science, that is, “generating hypotheses and testing them to see if they can be falsified.”<sup>257</sup> If an expert testifies based upon experience, however, a court should test the opinion by determining whether the

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251. *See id.* at 589.

252. *See id.* at 595.

253. *See id.* at 597.

254. *See Kalamazoo River Study Grp. v. Rockwell Int’l Corp.*, 171 F.3d 1065, 1072 (6th Cir. 1999).

255. *See Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 144-45 (1997).

256. *See, e.g., Elcock v. Kmart Corp.*, 223 F.3d 734, 751 (3d Cir. 2000). *But see Glastetter v. Novartis Pharm. Corp.*, 107 F. Supp. 2d 1015, 1024-25 (E.D. Mo. 2000) (explaining that cross-examination of plaintiff’s expert at *Daubert* hearing was “particularly instructive” because the expert “demonstrated frequent episodes of poor or selective memory, and his answers, when challenged, demonstrate[d] the unreliability of his conclusions”), *aff’d*, 252 F.3d 986 (8th Cir. 2001).

257. *Daubert*, 509 U.S. at 593.

expert “employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.”<sup>258</sup>

Finally, the proposed amendment would add two provisions to help ensure that courts properly apply the Rule. The first provision would codify the abuse-of-discretion standard set forth in *Joiner* for district court opinions whether they admit or exclude expert testimony, and thus prevent future courts from following the erroneous path laid out in *Johnson* and *SQM North America*.<sup>259</sup> The second provision would expressly preclude courts from ignoring the plain language of Rule 702 in preference for prior judicial rulings that adopted different standards for expert admissibility. The process of amending Rule 702 for a second time should, itself, have the added benefit of focusing judicial attention on the Rule. The *Daubert* opinion, however, received a great deal of attention; the 2000 amendments much less so, to the extent that courts and commentators commonly refer to the admissibility test for expert testimony as “*Daubert*.”<sup>260</sup> The proposed added provision should end the practice of courts relying on post-1993 cases even when those cases conflict with the text of Rule 702.

Disputes over the scope of the trial court’s gatekeeping role should not be fought out with dueling citations to outdated precedent or ambiguous statements in the common law. Indeed, it is exactly this type of indeterminacy in evidence law that resulted in the enactment of the Federal Rules of Evidence in 1975.<sup>261</sup> Rule 702 sets forth the law of expert admissibility in federal courts, and it is the Rule’s provisions ultimately that govern.<sup>262</sup> We should make certain that the Rule is properly stated to accomplish its task.

#### CONCLUSION

By codifying the more rigorous and structured approach to expert admissibility envisioned in the *Daubert* trilogy, the 2000 amendments to Rule 702 sought to improve the administration of justice by resolving the debate that had emerged in the courts in the 1990s

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258. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999).

259. *See Joiner*, 522 U.S. at 143.

260. *See supra* text accompanying notes 35-41.

261. *Imwinkelried*, *supra* note 239, at 1368-69.

262. *See* FED. R. EVID. 702.

over the proper meaning of *Daubert*. Fifteen years later, however, it is clear that the Rule has only partially accomplished its objective. Many courts continue to resist the judiciary's proper gatekeeping role, either by ignoring Rule 702's mandate altogether or by aggressively reinterpreting the Rule's provisions.

Informed by this additional history of recalcitrance, the time has come for the Judicial Conference to return to the drafting table and finish the job it began in 2000. Rule 702 should be amended to secure the promise of *Daubert* and effectively protect future litigants and juries from the powerful and quite misleading impact of unreliable expert testimony.