Evaluating the Reliability of Nonscientific Expert Testimony: A Partial Answer to the Questions Left Unresolved by Kumho Tire Co. v. Carmichael

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I. INTRODUCTION

For almost three-quarters of a century, the venerable standard announced in Frye v. United States1 governed the admissibility of scientific evidence. The Court of Appeals for the District of Columbia handed down the Frye decision in 1923. Under Frye, the proponent of testimony had to demonstrate that the expert’s testimony was based on a generally accepted theory or technique.2 However, in 1993—seventy years after the rendition of the Frye decision—another court sitting in Washington, the United States Supreme Court, overturned the standard. The Court did so in its now celebrated Daubert v. Merrell Dow Pharmaceuticals3 decision.

In the interim between Frye and Daubert, Congress enacted the Federal Rules of Evidence.4 The statutory scheme includes Federal Rule of Evidence 702, reading: “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

In Daubert, the Court held that to be admissible, purportedly scientific testimony must qualify as reliable “scientific . . . knowledge” within the meaning of that expression in Rule 702.6 Drawing heavily on several amicus briefs filed by scientific organizations,7 Mr. Justice Blackmun adopted an essentially methodological definition of science. He described science as a process of formulating hypotheses about phenomena and then subjecting the hypotheses to experimentation and observation for falsification or verification.8 The thrust of Daubert is an empirical validation test; the admissibility of scientific testimony turns on the extent and caliber of the experimentation and observation verifying the underlying hypothesis.9 Justice Blackmun elaborated on the factors which trial judges should

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1. 293 F. 1013 (D.C. Cir. 1923).
7. See id. at 589-90.
8. See id. at 590.
consider in applying the test to decide if the empirical validation is adequate: whether the hypothesis is testable; 10 whether it has been tested; 11 how large is the known or potential error rate; 12 whether there are standards controlling the technique’s operation; 13 whether the theory or technique has gained general acceptance; 14 and “whether the theory or technique has been subjected to peer review and publication.” 15 Justice Blackmun added that publication is not “a sine qua non of admissibility.” 16 He also emphasized that this list of factors was not intended as “a definitive checklist or test.” 17 Rather, the factors merely serve as circumstantial indicia of the quality of the empirical validation underpinning the scientific theory or technique.

Although Daubert gave the lower courts extensive guidance on how to gauge the admissibility of scientific testimony, in a footnote the Court pointed out that it was not prescribing standards for the introduction of nonscientific expert testimony such as opinions by musicians or automotive mechanics. 18 The Court stated: “Rule 702 also applies to ‘technical, or other specialized knowledge.’ Our discussion is limited to the scientific context because that is the nature of the expertise offered here.” 19 That footnote left open the question of whether, and if so to what extent, Daubert applied to nonscientific expert testimony. Did Daubert apply at all? Did Daubert apply only in the limited sense that the proponent of nonscientific expert testimony must make a foundational showing of the general reliability of the testimony? Or were the specific factors enumerated in Daubert equally applicable to nonscientific expertise? These questions badly divided the lower courts. 20

That split of authority set the stage for the Supreme Court’s 1999 decision in Kumho Tire Co. v. Carmichael. 21 Kumho Tire was a products liability action against a tire manufacturer. 22 The plaintiff called an engineer named Carlson as an expert to establish the existence of a defect in the tire. 23 The plaintiff offered the engineer’s testimony as nonscientific expertise, based primarily on personal experience, rather than as scientific evidence. 24 Carlson asserted that he was relying on his extensive experience in the tire field, including ten years of work at Michelin. 25 Writing for

10. See Daubert v. Merrell Dow Pharm., Inc., 509 U.S. at 593.
11. See id.
12. See id. at 594.
13. See id.
14. See id.
15. Id. at 593.
16. Id.
17. Id.
18. See id. at 590 n.8.
19. Id.
22. See id. at 1171.
23. See id.
24. See id. at 1173.
25. See id. at 1176.
the majority, Justice Breyer ruled that nonscientific expertise must qualify as reliable “knowledge” rather than speculation. Even purportedly nonscientific expert testimony is subject to “Daubert-style scrutiny.” The Justice highlighted the problem of the so-called self-validating expert discipline; he stressed that even if the proponent of testimony based on “astrology or necromancy” characterized the testimony as nonscientific, the testimony would be inadmissible because “the discipline itself lacks reliability.” It is not enough that the self-proclaimed experts who practice these disciplines accept the premises and techniques of the discipline. There must be some independent, objective indicium of the reliability of the discipline.

After ruling that the general Daubert reliability test extends to nonscientific expert testimony, Justice Breyer turned to the question of whether the specific factors listed in Daubert apply in the context of nonscientific expertise. The Justice reiterated the Daubert majority’s statement that the trial judge’s assessment must be “flexible.” According to the Court, the trial judge must have “considerable leeway” in selecting the factors which “are reasonable measures of the reliability of [the proffered] expert testimony.”

We can neither rule out, nor rule in, for all cases and for all time the applicability of the factors mentioned in Daubert, nor can we now do so for subsets of cases categorized by category of expert or by kind of evidence. Too much depends upon the particular circumstances of the particular case at issue.

Justice Breyer did add, though, that the trial judge must ensure that the “expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.”

26. Id. at 1174.
27. Id. at 1179.
30. Id.
31. At the lower court level, the issue most commonly litigated is whether clinical ecology falls within the category of self-validating disciplines. Clinical ecologists sometimes attempt to opine on multiple chemical sensitivity (MCS). Many critics have contended that there is no independent proof of the existence of MCS and that the diagnosis rests solely on the claims of clinical ecologists. See Kenneth Foster & Peter Huber, Judging Science: Scientific Knowledge and the Federal Courts 59 (1997); Michael I. Luster et al., Chemical Pollutants and “Multiple Chemical Sensitivity,” in Phantom Risk: Scientific Inference and the Law 379-99 (K. Foster et al., eds. 1993). For the most part, the courts have accepted that contention and excluded the evidence as unreliable. See Summers v. Missouri Pac. R.R. Sys., 132 F.3d 599, 603-04 (10th Cir. 1997); Coffin v. Orkin Exterminating Co., 20 F. Supp.2d 107, 110-11 (D. Me. 1998).
33. Id. at 1176.
34. Id. at 1175.
Like Daubert,36 Kumho Tire is certain to generate a massive amount of commentary. If anything, Kumho Tire may spawn a larger body of commentary. The Daubert opinion at least gave the lower courts extensive guidance on the factors to utilize in assessing the admissibility of tendered scientific evidence. In contrast, the Kumho Tire Court adamantly refused to rule in or out specific factors in particular cases.37 Kumho Tire leaves so many unanswered questions that it invites commentators to attempt to fill the gaps in the opinion. In the aftermath of Daubert, many commentators attempted to deduce a grand vision of science underlying Justice Blackmun’s opinion.38 There may be similar, ambitious efforts to extract from Kumho Tire a metatheory of the reliability of expert testimony.

This Article eschews that ambition. The development of such a metatheory may prove to be impossible:

In the long term, we may discover that Daubert addressed the easier part of the problem of expert testimony; it was a relatively straightforward matter for the Daubert Court to deduce objective reliability standards from the nature of the process of experimental Newtonian science. However, . . . the epistemology of nonscientific expert knowledge is quite different from that of scientific propositions. . . . [T]he development of [universally applicable] objective validation standards for nonscientific opinion is likely to prove to be a more difficult task than the formulation of such tests for scientific testimony.39

This Article has a far more limited objective. Its goal is to identify two specific factors which trial judges may find useful in many cases in which they face the task of ruling on the admissibility of nonscientific expert testimony.

Part II of this Article describes the Kumho Tire opinion in detail. Part III evaluates the opinion and concludes that the Kumho Tire opinion is wanting. Part III goes on to argue that the opinion not only gives the lower courts less guidance than Daubert but, even worse, furnishes the courts no useful guidance at all on handling the problems posed by self-validating disciplines.

Part IV of the Article endeavors to furnish some of the guidance missing in Kumho Tire. This section urges that when the foundational evidence is available, trial judges applying Kumho Tire should consider two factors: first, empirical studies indicating that the expert can make the relevant decision more reliably than lay triers of fact, and second, evidence that groups other than the proponents of the discipline generally rely on the theory or technique. Part IV initially contends that these two factors can help judges discharge their gatekeeping responsibility in subjecting nonscientific testimony to “Daubert-style” scrutiny.40 Part IV also argues that the information about these factors is admissible evidence that may be submit-

36. Entire symposia devoted to Daubert appeared in print almost before the ink was dry on the opinion. See, e.g., Symposium, Scientific Evidence After the Death of Frye, 15 CARDOZO L. REV. 1745 (1994).
37. See Kumho Tire Co. v. Carmichael, 119 S. Ct. at 1175.
ted to jurors. Reliance on these factors will help ensure that neither the trial judge nor the jurors must accept the bald assertions of the expert. In its 1997 decision in *General Electric Co. v. Joiner,*41 the Supreme Court stressed that the lower courts need not "admit" or accept "opinion evidence which is connected to [the] data only by the *ipse dixit* of the expert."42 In that light, in administering *Kumho Tire,* the lower courts should search for factors which can both advance the judicial inquiry into reliability and be supported by evidence capable of being submitted to the jury. Hopefully, this Article will further that search.

II. A DESCRIPTION OF THE SUPREME COURT'S DECISION IN *KUMHO TIRE*

A. The Threshold Question of Whether Federal Rule of Evidence 702 Requires the Proponent of Nonscientific Expert Testimony to Make a Foundational Showing of the Reliability of the Testimony

In *Kumho Tire Co. v. Carmichael,*43 the Supreme Court confronted two questions. The initial decision the Court faced was whether to extend some version of *Daubert's*44 reliability requirement to nonscientific expert testimony. As previously stated, *Daubert* involved purportedly scientific evidence. Thus, the question posed in *Daubert* was whether the statutory text, "scientific . . . knowledge,"45 imposed on the proponent of scientific testimony a burden to establish the reliability of the underlying theory or technique. As the Court remarked in a footnote, strictly speaking the *Daubert* decision was precedent only in the case of scientific testimony, because that was "the nature of the expertise offered" in *Daubert.*46

However, the text of Rule 702 is worded in the alternative, "scientific, technical or other specialized knowledge."47 The question of statutory interpretation was whether the reliability requirement is confined to purportedly "scientific . . . knowledge" or whether it is also applicable to nonscientific "technical or other specialized knowledge."48 Under the old *Frye*49 regime, nonscientific testimony enjoyed a general exemption from scrutiny into its reliability.50 By its terms, the *Frye* test was restricted to novel "scientific" testimony; and there was no need to establish the general acceptance of the principles and techniques underlying nonscientific expert evidence. The question naturally arose as to whether there would be a parallel exemption for nonscientific evidence from *Daubert's* reliability and validation requirements.

42. Id. at 146.
43. 119 S. Ct. 1167 (1999).
47. Fed. R. Evid. 702.
48. Id.
49. Frye v. United States, 293 F. 1013 (D.C. Cir. 1923).
The *Kumho Tire* Court answered that question in the negative. The Court cited three reasons for its conclusion. To begin with, the Court noted that on its face, Rule 702 makes “no relevant distinction” among the specified types of expertise.51 As one commentator argued shortly after the rendition of *Daubert*:

In *Daubert*, the Court construed Rule 702’s reference to “scientific knowledge” as requiring that trial judges serve as gatekeepers screening out unreliable scientific testimony. In virtually the same breath, Rule 702 also mentions “technical, or other specialized knowledge.” If the mention of scientific knowledge suffices to mandate reliability standards for scientific testimony, *a fortiori* the mention of nonscientific expert knowledge should compel the courts to seek to formulate reliability standards for that type of expert evidence as well.52

Justice Breyer then turned back to the *Daubert* opinion. His reading of the opinion convinced him that the noun “knowledge” had been the textual basis for imposing a reliability requirement. The proffered testimony must rest on validated knowledge rather than unsubstantiated, subjective speculation.53 Thus, whether the proponent characterizes his or her testimony as “scientific,” “technical,” or merely “specialized,” the proponent must satisfy “a standard of evidentiary reliability.”54

In addition, Justice Breyer advanced a policy argument for extending the reliability requirement to nonscientific expertise:

Neither is the evidentiary rationale that underlay the Court’s basic *Daubert* “gatekeeping” determination limited to “scientific” knowledge. *Daubert* pointed out that federal Rules 702 and 703 grant expert witnesses testimonial latitude unavailable to other witnesses on the “assumption that the expert’s opinion will have a reliable basis in the knowledge and experience of his discipline.” . . . The Rules grant that latitude to all experts, not just to “scientific” ones.55

In some circumstances, Federal Rule of Evidence 703 permits all types of experts—not just scientists—to base opinions on hearsay reports from third parties.56 Hence, experts need not rest the opinions exclusively on facts which they have firsthand or personal knowledge of under Federal Rule 602.57 The normal showing of personal knowledge is one of the most fundamental guarantees of the reliability submitted to the trier of fact.58 If Article VII of the Federal Rules frees all types of experts from this normal safeguard of reliability, it makes sense to demand that the proponent of every type of expert testimony make a compensating showing of the trustworthiness of the basis of the expert’s opinion.

Finally, Justice Breyer argued that any other approach would be judicially unmanageable. He wrote:

[I]t would prove difficult, if not impossible, for judges to administer evidentiary rules under which a gatekeeping obligation depended upon a distinction between

54. *Id.* (quoting *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589-90 (1993)).
55. *Id.* (citation omitted).
56. See Fed. R. Evid. 703.
57. See Fed. R. Evid. 602.
“scientific” knowledge and “technical” or “other specialized” knowledge. There 
is no clear line that divides the one from the others. Disciplines such as engineer-
ing rest upon scientific knowledge. Pure scientific theory itself may depend for 
its development upon observation and properly engineered machines. And con-
ceptual efforts to distinguish the two are unlikely to produce clear legal lines 
capable of application in particular cases.59

It was not simply that it would complicate the trial judge’s task to make a prelimi-
nary classification of the proffered testimony as scientific, technical, or other spe-
cialized knowledge. Justice Breyer was frankly skeptical that the courts could 
successfully develop criteria for distinguishing among the three types of expert 
opinion. In his earlier opinion in Daubert, Chief Justice Rehnquist had queried 
whether “Rule 702 actually contemplate[s] that the phrase ‘scientific, technical, or 
other specialized knowledge’ be broken down into numerous subspecies of expertise, 
or did its authors simply pick descriptive language covering the sort of expert 
testimony which courts have customarily received?”60 Justice Breyer concluded 
that the latter interpretation of Rule 702 is correct. He rejected the construction 
that “Rule 702 creates a schematism that segregates expertise by type . . . .”61

Under Justice Breyer’s approach, trial judges need not attempt to map the domain 
of expert testimony, drawing precise boundaries between the various types of ex-
pert opinion.62

In the course of his opinion, Justice Breyer went out of his way to mention one 
of the reliability problems that has troubled the lower courts—namely, the prob-
lem of the self-validating discipline.63 He singled out the fields of astrology and 
necromancy.64 There certainly are theories and techniques which are “generally 
accepted” by the practitioners of astrology and necromancy.65 However, the wide-
spread internal acceptance of those principles is an insufficient basis for admitting 
testimony from those practitioners because, in both cases, “the discipline itself 
lacks reliability.”66 The ipse dixit of the discipline itself does not warrant the 
admission of the opinions of the discipline’s practitioners.67 The assertions of 
self-proclaimed experts do not constitute an objective guarantee of the reliability 
of their opinions.

B. The Question of the Specific Factors Trial Judges Should Consider in Evaluating 
the Reliability of Proffered Nonscientific Expert Testimony

In Daubert, after announcing the general reliability requirement, Justice 
Blackmun enumerated several factors for trial judges to weigh in assessing the 
trustworthiness of proffered scientific evidence.68 He did so over the dissent of

60. Daubert v. Merrell Dow Pharm., Inc., 509 U.S. at 600 (Rehnquist, C.J., concurring in 
part, dissenting in part).
62. See id.
63. See id. at 1175.
64. See id.
65. Id.
66. Id.
Chief Justice Rehnquist. The Chief Justice protested that it was unnecessary to include Justice Blackmun’s “general observations” about the factors. Strictly speaking, the Chief Justice was correct. As he pointed out, the petition for certiorari in Daubert was granted only on questions related to whether Frye was still good law in federal practice. The grant had not expressly raised the questions of whether Rule 702 prescribed a substitute test and, if so, how the trial judiciary should administer the new test. Yet, in a practical sense, Justice Blackmun did the right thing. The trial judiciary would have been adrift if the Court had said only that Frye was superseded. Justice Blackmun sensed that the trial judges needed and deserved both a new test and some concrete insight into the application of the new test.

Once the Kumho Tire Court decided that a reliability requirement applies across the board to all species of expert testimony, the question arose as to what guidance the Court could give the trial judiciary about the application of the requirement to nonscientific expertise. In Kumho Tire, there was no dissent over the need to afford the trial judiciary some guidance. With no protest, Justice Breyer shifted the focus of his opinion to address the guidelines that trial judges ought to follow in ruling on the reliability of proffered nonscientific expert testimony.

Early in this phase of the opinion, Justice Breyer harked back to the list of factors set out in Daubert. However, Justice Breyer immediately acknowledged that the list of factors was intended to guide the trial judiciary’s evaluation of scientific testimony and that in a given case, one, some, or all of these factors might prove inappropriate for assessing nonscientific expertise. That acknowledgment was sensible. The factors are traceable to the Newtonian model of science. As the Solicitor General’s amicus brief noted, the range of nonscientific expert testimony spans such diverse fields as “experts in drug terms, handwriting analysis, criminal modus operandi, land valuation, agricultural practices, railroad procedures, [and] attorney’s fee valuation,”—topics that do not neatly lend themselves to analysis by classic Newtonian methodology. For that reason, Justice Breyer explained that it would be unduly “rigid[]” to bar nonscientific expert testimony solely on the ground of “a failure to satisfy any one of” the factors mentioned in Daubert. Simply stated, a court cannot find a square peg in a round hole. Those factors “may or may not” be pertinent to the evaluation of the reliability of a particular type of nonscientific expertise. As the Introduction to this Article noted, the Justice expressly stated that the Court “can neither rule out, nor rule in, for all cases . . . the applicability of the factors mentioned in Daubert . . . .”

Just as the Daubert majority sensed that the trial judiciary needed some guidance as to the administration of the new validation test, the Kumho Tire majority

69. See id. at 598 (Rehnquist, C.J., concurring in part, dissenting in part).
70. Id.
71. See id.
73. See id.
74. See Imwinkelried, The Next Step, supra note 39, at 2289.
75. Kumho Tire Co. v. Carmichael, 119 S. Ct. at 1175.
76. Id. at 1179.
77. Id. at 1175.
78. Id.
evidently felt obliged to say more than that the Daubert factors might be inapplicable in a particular case involving nonscientific expertise. In 1997, in General Electric Co. v. Joiner,\textsuperscript{79} the Court ruled that trial judges have a measure of discretion in applying the Daubert factors to gauge the reliability of scientific testimony.\textsuperscript{80} In Kumho Tire, the majority announced that in cases involving nonscientific expertise, the trial judiciary has another, more fundamental type of discretion. In Justice Breyer’s words, the trial judge must be accorded “broad latitude”\textsuperscript{81} and “considerable leeway”\textsuperscript{82} in selecting the factors to consider in evaluating the trustworthiness of nonscientific expertise. The trial judge should wield “discretionary authority”\textsuperscript{83} in identifying “the specific factors . . . [that] are reasonable measures of the reliability of” nonscientific expert testimony.\textsuperscript{84}

In a crucial passage though, the Kumho Tire majority appeared to single out one factor that they apparently believed is always pertinent. The majority emphasized that the trial judge must “make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.”\textsuperscript{85} Turning to the specific facts of the case, the majority found the foundation for Carlson’s opinion deficient. The majority illustrated the importance of “the same intellectual rigor” factor by commenting that “no one has argued that Carlson himself, were he still working for Michelin, would have concluded in a report to his employer that a similar tire was similarly defective on grounds identical to those upon which he rested his conclusion here.”\textsuperscript{86}

In short, while Justice Breyer’s opinion generally provided little guidance to the trial judiciary as to the relevant factors, the opinion did seem to underscore one factor. The factor of whether the expert had employed “the same level of intellectual rigor” customary in practice figured prominently in the opinion.\textsuperscript{87} Justice Breyer not only expressly mentioned the factor, he also made it clear that he meant what he said about the importance of that factor. He relied squarely on that factor in upholding the trial judge’s ruling excluding Carlson’s testimony.

III. A CRITICAL EVALUATION OF THE SUPREME COURT’S DECISION IN KUMHO TIRE: THE MAJORITY’S FAILURE TO PROVIDE THE TRIAL JUDICIARY WITH ADEQUATE GUIDANCE

After the Court handed down its decision in Daubert,\textsuperscript{88} a number of lower courts professed that they found the task of evaluating the reliability of scientific testimony “daunting”\textsuperscript{89} or “difficult.”\textsuperscript{90} The lower courts encountered that degree

\begin{itemize}
  \item \textsuperscript{79} 522 U.S. 136 (1997).
  \item \textsuperscript{80} See id. at 139.
  \item \textsuperscript{81} Kumho Tire Co. v. Carmichael, 119 S. Ct. at 1176.
  \item \textsuperscript{82} Id.
  \item \textsuperscript{83} Id.
  \item \textsuperscript{84} Id.
  \item \textsuperscript{85} Id.
  \item \textsuperscript{86} Id. at 1179.
  \item \textsuperscript{87} Id. at 1176.
  \item \textsuperscript{88} Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579 (1993).
  \item \textsuperscript{89} Daubert v. Merrell Dow Pharm., Inc., 43 F.3d 1311, 1315 (9th Cir.), cert. denied, 516 U.S. 869 (1995).
  \item \textsuperscript{90} Ruiz-Troche v. Pepsi Cola of Puerto Rico Bottling Co., 161 F.3d 77 (1st Cir. 1998).
\end{itemize}
of difficulty even though in his opinion, Justice Blackmun went to some length to identify factors that the lower courts should consider. In all likelihood, the lower courts will experience greater difficulty applying Kumho Tire because, in both a relative and an absolute sense, Justice Breyer's opinion fails to give the lower courts adequate guidance.

In a relative sense, Kumho Tire gives the trial judges less guidance than Daubert. As previously stated, in Daubert Justice Blackmun listed six factors to inform the trial judiciary's discretionary assessment of the reliability of purportedly scientific testimony. Justice Blackmun assigned trial judges a new "gatekeeping" or "screening" task, but he did his best to equip them with conceptual tools to perform the task. In sharp contrast, the majority opinion in Kumho Tire does not even undertake to develop a similar list of considerations to guide the trial judges faced with the gatekeeping task of gauging the reliability of nonscientific expert testimony. The guidance from the majority opinion is essentially negative in nature. The Kumho Tire majority states that it cannot "rule out, nor rule in, for all cases . . . the applicability of . . . [particular] factors mentioned in Daubert . . . ." Like Daubert, Kumho Tire assigns the trial judiciary a gatekeeping responsibility, but unlike Daubert, with the exception of a solitary remark, the Kumho Tire Court gives the trial judiciary little insight into the proper method of discharging that responsibility.

Even that remark illustrates an absolute weakness in the opinion. That remark is the majority's comment that in fulfilling his or her gatekeeping responsibility for proffered nonscientific expertise, it is mandatory that the trial judge "make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." This mandate reinstates a version of the traditional Frye general acceptance standard—the standard which Daubert overturned. The rub is that this factor is nonresponsive to the reliability problem that the Kumho Tire majority itself highlighted—namely, the self-validating discipline. A practitioner of such a discipline may very well "employ[] in the courtroom the same level of intellectual rigor that characterizes the practice" of his or her field outside the courtroom; but as the Kumho Tire majority observed, "the discipline itself" might "lack[] reliability." Perhaps a showing of the expert's use of "the same level of intellectual rigor" can be

93. See Daubert v. Merrell Dow Pharm., Inc., 509 U.S. at 593-94.
94. Id. at 597.
95. Id. at 589.
96. Kumho Tire Co. v. Carmichael, 119 S. Ct. at 1175.
97. See id. at 1176.
98. Id.
101. See Kumho Tire Co. v. Carmichael, 119 S. Ct. at 1175.
102. Id. at 1176.
103. Id. at 1175.
104. Id. at 1176.
viewed as a necessary condition to the admissibility of the expert's testimony. However, if the problem of the self-validating discipline is a genuine one, as the *Kumho Tire* majority evidently believed, that showing cannot be treated as a sufficient foundation for the admissibility of nonscientific expert testimony. The expert might have complied with the internal conventions of his or her discipline, but without more, that compliance does not furnish any assurance of the objective reliability of the testimony. In other words, there is a virtually complete disconnect between the one factor the *Kumho Tire* majority stressed (employment of the "same level of intellectual rigor" in the courtroom) and the reliability problem the majority accentuated (the challenge posed by self-validating disciplines).

The upshot is that if a conscientious trial judge searches through *Kumho Tire* to learn how he or she is to discharge his or her new gatekeeping responsibility for nonscientific expertise, the judge will find minimal help—much less guidance—compared to the assistance that *Daubert* gave the trial judge in passing on the admissibility of scientific testimony. Worse still, the one bit of guidance the majority does furnish is of no assistance to a judge faced with an opponent's argument that the proponent's expert is merely a practitioner of a self-validating discipline.

IV. AN ATTEMPT TO PROVIDE THE TRIAL JUDICIARY WITH SOME GUIDANCE: AN IDENTIFICATION OF TWO FACTORS THAT TRIAL JUDGES CAN SOMETIMES WEIGH IN EVALUATING THE RELIABILITY OF PROFFERED NONSCIENTIFIC EXPERT TESTIMONY

As previously stated, even in the long term it may prove impossible to develop a single model or theory for assessing the reliability of nonscientific expert testimony. However, even if it proves impossible to formulate a grand theory, it may be possible to identify discrete factors which will be helpful to the trial courts in many cases.

To be helpful, a factor must satisfy two criteria. First, the factor must assist trial judges in evaluating the reliability of nonscientific expert testimony. The factor must constitute a rational basis to support a finding that proffered nonscientific testimony is trustworthy. Second, the information about the factor must be admissible to the jury. If the proponent's foundation convinces the trial judge that the nonscientific expertise satisfies *Kumho Tire*, ultimately the testimony will be submitted to the trier of fact.

These criteria are distinct. Even if information is admissible to the judge and convinces the judge that the proffered nonscientific expertise is reliable, the information might not be admissible and capable of being submitted to the jury. As the Supreme Court noted in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, the judge's admissibility ruling on proffered expert testimony falls under Federal Rule of Evidence 104(a). Rule 104(a) is one of the provisions governing preliminary fact-finding. Rule 104(a) states:

105. *Id.*
106. See *id.* at 1175.
110. See *id.* at 592.
Questions of admissibility generally. Preliminary questions concerning the qualification of a person to be a witness, the existence of a privilege, or the admissibility of evidence shall be determined by the court. In making its determination, it is not bound by the rules of evidence except those with respect to privileges.\footnote{111}

Consider the last sentence. In its 1987 decision in Bourjaily v. United States,\footnote{112} the Supreme Court held that by virtue of that sentence the hearsay rule is inapplicable to foundational testimony submitted to the trial judge.\footnote{113} At first blush, it might seem heretical for an evidence code to dispense with compliance with evidentiary rules. However, the last sentence of Rule 104(a) makes sense. The Advisory Committee Note to Rule 104(a) states the conventional wisdom that the traditional exclusionary rules of evidence such as hearsay are “the child of the jury system,”\footnote{114} that is, the common-law courts evolved these rules "because the judges feared that unsophisticated lay jurors would attach undue weight to such evidence.”\footnote{115} However, the judge is the decision maker under Rule 104(a); the judge rather than the jury rules on these questions. The judge can rule at an out-of-court hearing in the jury’s absence.\footnote{116} For that matter, the judge can rule on the issue as an \textit{in limine} matter before a jury is even selected.\footnote{117} Because the exclusionary rules are inspired by doubts about lay jurors’ competence, there is no logical necessity to apply the rules at the foundational stage to the judge’s determination. In the words of the Advisory Committee, “Sound sense backs the view that . . . the judge should be empowered to hear any relevant evidence, such as . . . reliable hearsay.”\footnote{118}

The difficulty arises because Rule 104(a) is inapplicable to the testimony submitted to the trier of fact on the merits of the case. Consequently, even if the judge may consider a particular item of foundational information when he or she passes on the admissibility of proffered nonscientific expert testimony, that information is not necessarily admissible in open court; the jury might not gain the benefit of the information. However, the rules governing the admissibility of expert testimony should put the trier of fact in a position to make intelligent decisions as to whether to believe the testimony and how much weight to ascribe to the testimony.\footnote{119} The rules ought to be structured to force the proponent to educate the trier of fact rather than permitting the proponent to invite the trier of fact to simply defer to the expert.\footnote{120} Like the trial judge, the jury should not be expected to

\footnote{111} Fed. R. Evid. 104(a).
\footnote{112} 483 U.S. 171 (1987).
\footnote{114} Fed. R. Evid. 104(a) advisory committee’s note.
\footnote{116} See Fed. R. Evid. 103.
\footnote{118} Fed. R. Evid. 104 advisory committee’s note.
\footnote{120} See id.
accept an expert’s unsubstantiated *ipse dixit*. In short, together the two criteria form a both/and proposition: The factor must both assist the trial judge and be in admissible form, submissible to the jurors. Only then will the factor both facilitate the judicial performance of the gatekeeping duty under *Kumho Tire* and enable the jury to make an informed decision as to the weight of any evidence admitted under *Kumho Tire*.

It is submitted that there are at least two factors that satisfy these criteria. One factor is an empirical study showing that practitioners of the nonscientific expertise in question can resolve factual questions more reliably than laypersons. The second is a showing of extensive third party reliance on this type of nonscientific opinion—reliance by competent persons other than the practitioners of the nonscientific discipline. The immediately following subsection contends that both of these factors satisfy the first criterion, namely, assisting the trial judge in evaluating the reliability of the proffered testimony. The ensuing subsection argues that these factors also meet the second criterion. The subsection identifies a potential hearsay objection to proof of third party reliance but then explains why that objection is not well taken under the Federal Rules of Evidence.

A. The Consideration of These Factors Will Help Trial Judges Evaluate the Reliability and Admissibility of Proffered Nonscientific Expert Testimony

1. Proof of Expert Decision-making Ability Superior to That of Laypersons

The first proposed factor, an empirical study demonstrating the nonscientific expert’s superior decision-making ability, is directly relevant to the question of the reliability of the nonscientific expertise. The issue is whether the expert technique in question accurately does what the proponent claims, usually a claim that the use of the technique enables the expert to reach a correct opinion about a factual issue. In *Daubert*, Justice Blackmun indicated that to be admissible, expert opinion must be both reliable in the sense that the technique allows the expert to reach the correct opinion and must “assist the trier of fact to understand or determine a fact in issue.” If a properly designed, well-conducted empirical study indicates that the use of the technique allows an expert to resolve the factual question much more accurately than the average lay trier of fact, the study is directly relevant to the judge’s decision.

A post-*Daubert* questioned document case, *United States v. Starzecpyzel*, is illustrative. The defendants, Roberta and Eileen Starzecpyzel, were charged with conspiring to steal artwork and jewelry from Roberta’s aunt. The prosecution contemplated calling a questioned document examiner at trial. The examiner was prepared to testify that the defendants had forged the aunt’s signature on two documents. Before trial, the defendants moved in limine to exclude the

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123. *Id.* at 592.
125. *See id.* at 1028.
126. *See id.*
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examiner’s testimony. The trial judge convened a Daubert hearing. At the hearing, the defense called several witnesses who challenged the adequacy of the experimental verification of many of the basic premises of questioned document examination.127

On the one hand, the testimony at the pretrial hearing persuaded the trial judge that questioned document examination does not qualify as “scientific . . . knowledge” under Daubert and Federal Rule of Evidence 702.128 The trial judge reviewed the factors that Justice Blackmun listed in his Daubert opinion.129 At the end of the review, the judge concluded that although questioned document examination possesses some “trappings of science,” its premises have not been “rigorously confirmed” by empirical methodology.130

On the other hand, the judge ruled that with a cautionary instruction,131 the questioned document examiner could testify as a nonscientific expert.132 In issuing that ruling, the judge relied in part on research by Dr. Moshe Kam of Drexel University.133 In the article summarizing his research, Dr. Kam bemoaned the small number of empirical investigations into the reliability of questioned document expertise.134 According to the court, Dr. Kam compared “the relative skills of FDEs [forensic document examiners] and lay” persons.135 Dr. Kam found that: “In our tests, the professional document examiners performed significantly better than [the lay] members of the control group. . . . Although these modest sample sizes may limit the significance of the computed probabilities, the differences in performance between the two groups are striking.”136 In a later published study, Dr. Kam reported that the false match rate for professional examiners was 6.5% but that the corresponding rate for laypersons was 38.3%.137 In a third study, Dr. Kam discovered that questioned document examiners significantly outperform laypersons even when the layperson has a monetary incentive to accurately perform the identification task.138

Several things are clear. To begin with, there is no strict necessity for admitting questioned document testimony even as nonscientific expertise. The Federal Rules of Evidence recognize that lay opinion testimony is admissible for the purpose of identifying a particular author’s handwriting style.139 There is not even a

127. See id.
128. Id. at 1038 (quoting Fed. R. Evid. 702).
129. See id. at 1037-38.
130. Id. at 1038.
131. See id. at 1049.
132. See id.
134. See Moshe Kam et al., Proficiency of Document Examiners in Writer Identification, 39 J. FORENSIC SCI. 5, 5 (1994) (“[s]urprisingly, there are only a few studies that examine the reliability of writer screening by document examiners”).
139. See Fed. R. Evid. 901(b)(2) (“By way of illustration only, and not by way of limitation, the following are examples of authentication or identification conforming with the requirements of this rule: . . . Nonexpert opinion as to the genuineness of handwriting.”).
need for a lay witness; the Federal Rules expressly permit the jurors themselves to compare a questioned document with exemplars of the alleged author's handwriting.\footnote{See Fed. R. Evid. 901(b)(3).} Moreover, there is a strong case that there has been so little systematic, rigorous investigation of the essential premises of questioned document examination that the discipline cannot be described as being truly "scientific."\footnote{See D. Michael Risinger et al., \textit{Brave New "Post-Daubert World"—A Reply to Professor Moenssens,} 29 SETON HALL L. REV. 405 (1998); D. Michael Risinger & Michael J. Saks, \textit{Science and Nonscience in the Courts: Daubert Meets Handwriting Identification Expertise,} 82 IOWA L. REV. 21 (1996); D. Michael Risinger et al., \textit{Exorcism of Ignorance as a Proxy for Rational Knowledge: The Lessons of Handwriting Identification "Expertise,"} 137 U. Pa. L. Rev. 731 (1989). \textit{But see} Andre Moenssens, \textit{Handwriting Identification Evidence in the Post-Daubert World,} 66 U.M.K.C. L. REV. 251 (1998) (arguing that many of the criticisms of questioned document examination have been overstated).}

Nevertheless, when the proponent of expert testimony marshals a study such as Dr. Kam's research, it is justifiable to admit the testimony as nonscientific evidence. To be sure, as in a mainstream scientific evidence case, the judge should scrutinize the study and inquire into the adequacy of the size of the database, the composition of the database, and the test conditions.\footnote{See Edward J. Imwinkelried, \textit{The Methods of Attacking Scientific Evidence} § 10-6 (3d ed. 1997).} The judge might find the study unpersuasive if the database was too limited, its composition was unrepresentative, or the test conditions were unrealistic. However, when the proponent's foundational showing allays those concerns about the study, the study is direct evidence of the reliability of the nonscientific expertise. The study demonstrates that the expert can perform the task accurately in the vast majority of cases and that the expert's validity rate is markedly higher than that of the typical layperson—the type of person sitting on the bench and in the jury box at trial. When this type of study is available, the field is no longer a mere self-validating discipline. The trial judge has a much more solid basis for his or her reliability finding than the word of the self-proclaimed experts who practice the discipline.

2. \textit{Proof of Extensive Third Party Reliance}

Although the proponent of nonscientific expert testimony has the strongest case when he or she presents direct evidence of the expert's superior decision-making ability, that type of evidence does not exhaust the possible factors that a trial judge may appropriately rely on. Circumstantial evidence is another possibility. In general, the circumstantial evidence can take the form of a showing that a large, competent group other than the practitioners of the nonscientific technique generally relies on the technique. What specific elements should the showing include?

To begin with, the group relying must not be the proponents of the discipline. As the \textit{Kamho Tire} majority realized, the trial judge should not admit testimony based solely on the claims of a self-validating discipline. To overcome the problem of self-validation, the proponent must establish that a group other than the practitioners of the discipline relies on the technique. The group could consist either of experts\footnote{See Hammond v. State, 569 A.2d 81 (Del. 1989) (pointing to a physicians' reliance on a particular blood alcohol test for treatment decisions).} or laypersons.
Further, whether the group consists of experts or laypersons, its members must be competent to determine whether the technique is valid. If the issue is whether a specific blood alcohol test accurately determines whether a person is intoxicated, physicians are qualified to determine whether the test is accurate.\textsuperscript{144} Physicians will make treatment decisions based on the results of the test, and they can observe whether the treatment improves their patients' health. When the question is whether automobile mechanics can diagnose engine malfunctions, as a class laypersons are competent to determine whether mechanics possess that diagnostic ability. The drivers who take their cars to mechanics might be unable to identify the malfunction, but they often can determine both whether there is a malfunction necessitating a visit to the mechanic and whether the malfunction disappears after the mechanic's repair work. There is a well-settled analogy in evidence law; in cases involving alleged defects in goods, the courts frequently admit evidence of lack of complaints by other customers.\textsuperscript{145} The lay customers may lack expertise in designing safe products, but in many cases they are competent to determine whether the product is behaving in a dangerous, unsafe fashion.

Next, the group relying must be large in number. In contrast to a study directly demonstrating the superior decision-making ability of the practitioners of a nonscientific discipline, evidence of reliance is circumstantial in character. The proponent asks the judge to infer the reliability of the expertise from the group's reliance on the technique. However, individuals can have reasons for relying on the technique other than their belief that it is reliable. An expert might use a particular test because the cost of the test is much less than that of competing tests. Likewise, laypersons might utilize a discipline's services because they have such limited resources or knowledge that they have no practical alternative but to resort to that service. Because individual members of the group could plausibly be motivated by other considerations, the judge should be reluctant to draw the inference of reliability unless the number of persons relying is substantial.

Moreover, the members of the group must generally rely on the technique. Revisit Justice Breyer's opinion in \textit{Kumho Tire}. Justice Breyer cited astrology and necromancy as examples of nonscientific disciplines whose practitioners do not qualify as expert witnesses.\textsuperscript{146} If the courts take the problem of self-validating disciplines seriously, a judge should not admit either type of testimony based solely on the word of practitioners of either discipline. However, what if the proponent argued alternatively that extensive lay reliance on the discipline furnishes the requisite circumstantial guarantee of reliability? Not only do astrologers vouch for their techniques; in fact, many persons rely on astrological predictions to help them make decisions. How then can we justify excluding such testimony, as Justice Breyer's opinion indicates? Although the absolute number of persons relying on astrological predictions may be impressive, the number does not even approach a majority of the lay population. A 1999 Roper Center poll indicates that only a quarter of the populace has any faith in astrology.\textsuperscript{147} In another 1999 poll, necro-

\textsuperscript{144} \textit{See id. at 91.}
\textsuperscript{145} \textit{See 2 McCormick on Evidence § 250 (John W. Strong ed., 5th ed. 1999).}
\textsuperscript{146} \textit{See Kumho Tire Co. v. Carmichael, 119 S. Ct. 1167, 1175 (1999).}
\textsuperscript{147} \textit{Roper Center for Public Opinion Research, Question ID: USGALLUP96SEP3 R04H 1999} (only 25% of the respondents expressed belief in astrology) (on file with author).
mancy fared even more poorly than astrology. In the case of both fields, the vast majority of the lay public is unwilling to believe in, much less rely on, the claimed expertise. Again, this evidence is circumstantial in nature. Caution is warranted, and caution should dictate that the judge refuse to infer reliability from a group’s reliance if most members of the group are unwilling to rely.

Finally, the showing should take the form of proof of real world reliance on the technique rather than mere subjective belief in the technique. The traditional Frye rule necessitated proof of the general acceptance of the underlying theory or technique. That standard requires only a showing that the majority of the specialists in the field asent to or believe in the theory or technique. In contrast, the showing contemplated in this subsection entails proof that the group generally relies on the technique in the real world on a day-to-day basis; that is, in everyday life, the group turns to the practitioners of the discipline for a service other than courtroom testimony. Demanding proof of reliance—as opposed to mere belief—strengthens the foundation in three ways. First, it yields a more confident inference that the members of the group subjectively believe in the technique. It is one thing to assent to a proposition in the abstract. Doing so entails little risk or expense to the person. A person might be willing to do so even if he or she was hesitant to venture effort, time, and money on the truth of the proposition. However, if the group’s members act on the basis of the belief, the judge has greater assurance that the group is convinced of the accuracy of the technique. Second, a requirement of proof of reliance better enables the judge to infer that the group has validly concluded that the technique is accurate. If the group uses the technique in the real world—making diagnoses on the basis of the blood alcohol test or using a car after an automotive mechanic’s repair—the group is in a position to later second-guess the supposed expert’s opinions. The physician can monitor to determine whether the health of patients diagnosed on that basis improves. Similarly, the owner of the car can observe whether the operation of the automobile is enhanced. Compared to a minimal demand for proof of belief, a requirement of a showing of reliance is a stronger guarantee of the objective correctness of the group’s belief in the technique. Third, as we shall see in the next subsection, proof of reliance is essential to overcoming the potential hearsay objection when the proponent attempts to submit the evidence to the trier of fact.

**B. Evidence of These Factors Can Be Submitted to the Trial Jurors and Will Help Them Evaluate the Weight of Nonscientific Expert Testimony**

The beginning of this section identified two criteria for identifying factors to determine the reliability of nonscientific expert testimony. One criterion is that the proposed factor must aid the judge in assessing the reliability of the proffered testimony without relying solely on the claims of a self-validating discipline. Part A

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151. *See id.*

demonstrated that there are at least two factors which satisfy that criterion: direct evidence in the form of a study demonstrating the nonscientific expert's superior decision-making ability and circumstantial evidence of general reliance by a competent group other than the practitioners of the discipline.

However, to be helpful, a proposed factor must satisfy a second criterion as well. The expert testimony rules should be designed to educate the trier of fact and not merely ask the trier of fact to take an assertion by an expert on blind faith.\textsuperscript{153} Under the last sentence of Federal Rule of Evidence 104(a),\textsuperscript{154} in ruling on admissibility the trial judge may sometimes consider information that the technical exclusionary rules deny the trier of fact. Even assuming that the consideration of a factor would benefit the trial judge, admitting the testimony on the basis of that factor would be wrong-minded if the relevant information about the factor is inadmissible and cannot be tendered to the jurors. In that event, the admission of the evidence would compel the jury to either summarily reject the expert's opinion or to uncritically embrace it as \textit{ipse dixit}.\textsuperscript{155} Fortunately, as the balance of this subsection explains, both factors discussed in Part A comply with the second criterion.

\textit{I. Proof of Expert Decision-making Ability Superior to That of Laypersons}

The submission to the jury of testimony about a study such as Dr. Kam's research should present few problems. Initially, assume that the researcher appears in person as a witness. He or she will have personal or firsthand knowledge of the research. Under Federal Rule of Evidence 602,\textsuperscript{156} the witness would be competent to describe all the details of the research project which he or she recalled. Even if the witness was only one member of a larger research team, the courts ordinarily allow the witness to report on the overall findings by the team.\textsuperscript{157} Any other approach would be inconvenient in the extreme; as a practical matter, it would require the proponent to call every team member as a witness at trial.

Suppose that the witness has difficulty recalling details of the research. If the research results had been reduced to writing before trial, under Rule 612\textsuperscript{158} the witness's proponent could present the writing to the witness in an attempt to revive the witness's memory. If that attempt failed, the document might be admissible as substantive evidence under the past recollection recorded hearsay exception.\textsuperscript{159}

Assume alternatively that it is impossible or infeasible for the researcher to appear as a witness at the time of trial. Again assuming that he or she had reduced the research findings to writing, the writing might be admissible even without the researcher's sponsoring testimony. For example, the writing could qualify for introduction as a business entry.\textsuperscript{160} Under the terms of Federal Rule of Evidence 803(6), the business entry foundation can be laid by a "custodian or other qualified

\begin{itemize}
\item \textsuperscript{154} See FED. R. EVID. 104(a).
\item \textsuperscript{156} See FED. R. EVID. 602.
\item \textsuperscript{157} See 1 C. Mccormick on Evidence § 15 (John W. Strong ed., 5th ed. 1999).
\item \textsuperscript{158} See FED. R. EVID. 612.
\item \textsuperscript{159} See FED. R. EVID. 803(5); 1 Paul C. Giannelli & Edward J. Imwinkelried, \textit{Scientific Evidence} § 6-2(D) (3d ed. 1999).
\item \textsuperscript{160} See FED. R. EVID. 803(6); 1 Paul C. Giannelli & Edward J. Imwinkelried, \textit{Scientific Evidence} § 6-2(C) (3d ed. 1999).
\end{itemize}
witness," that is, any person familiar with the entity’s procedures for generating and maintaining records. If the researcher were the employee of a government agency, the writing could constitute a public record, admissible under Federal Rule 803(8). In that event, no live foundational testimony would be necessary; public records are treated as self-authenticating when proper attesting and authenticating certificates are attached.

2. Proof of Extensive Third Party Reliance

Although introducing evidence of a directly relevant empirical study should be a simple matter, presenting evidence of third party reliance may be more troublesome. Consider the chain of inferences underlying the theory of logical relevance for the evidence of reliance. The theory is that the out-of-court reliance shows that the group members believe in the technique and that, in turn, their belief is some evidence of the truth of the proposition that the technique is valid. Given that chain of inferences, the opponent might contend that the testimony amounts to inadmissible hearsay. The reliance occurs out of court, and the opponent has no opportunity to cross-examine the actor at the time of the reliance. Modernly, the primary rationale for the hearsay doctrine is that the rule safeguards the right to cross-examination. It would arguably be useful to provide the opponent with an opportunity to cross-examine the out-of-court actor. If the actor is a physician using a particular blood alcohol test, the opponent might want to question the physician about the extent of his or her diagnostic experience with intoxication. When the actor is a driver who relied on a repair by an automotive mechanic, the opponent might desire to examine the actor about how carefully he or she monitored the operation of the automobile after the repair.

This hearsay argument is not only plausible; it is the traditional English view. Under that view, the definition of hearsay extends to so-called “implied assertions” or Morgan hearsay—nonassertive conduct actuated by a belief and offered to prove the truth of the belief. Every law student is familiar with the classic English case of Wright v. Tatham. In Wright, the pivotal issue was a decedent’s testamentary capacity. The proponent of the decedent’s will proffered evidence that acquaintances of the decedent had sent him serious letters. The proponent initially argued that the writers’ conduct evidenced their belief that the addressee was mentally competent. Otherwise, it would have been a waste of their time to mail him a serious letter. Then the proponent argued that because the writers were the decedent’s acquaintances, their conduct should be treated as some

163. See Fed. R. Evid. 803(8).
164. See Fed. R. Evid. 902(1)-(4).
166. See id.
evidence of the truth of the belief, namely, that the addressee was mentally competent. Although this chain of reasoning was logical, the House of Lords concluded that the evidence ran afoul of the hearsay rule.\textsuperscript{170} In 1992, the English courts affirmed that the \textit{Wright} decision is still good law.\textsuperscript{171} There are American precedents following \textit{Wright}.\textsuperscript{172}

Although evidence of third party reliance would be objectionable as hearsay under some American and English authorities, that objection is unsound in federal practice and in the states that have patterned their evidence codes directly after the Federal Rules. The statute on point is Rule 801(a). That subsection provides: “A [hearsay] ‘statement’ is (1) an oral or written assertion or (2) nonverbal conduct of a person, if it is intended by the person as an assertion.”\textsuperscript{173} The Advisory Committee Note specifically states that the statutory language is narrow and intended to exclude nonverbal conduct which is not subjectively intended as an assertion.

Other nonverbal [nonassertive] conduct, however, may be offered as evidence that the person acted as he did because of his belief in the existence of the condition sought to be proved, from which belief the existence of the condition may be inferred. This sequence is, arguably, in effect an assertion of the existence of the condition and hence properly includable within the hearsay concept. . . . Admittedly evidence of this character is untested with respect to the perception, memory, and narration (or their equivalents) of the actor, but the Advisory Committee is of the view that these dangers are minimal in the absence of an intent to assert . . . .

The situations giving rise to the nonverbal conduct are such as virtually to eliminate questions of sincerity.\textsuperscript{174} Both at early common law and under the Federal Rules, in administering the hearsay doctrine the courts focus primarily on the opportunity to cross-examine the out-of-court declarant to probe the declarant’s sincerity.\textsuperscript{175} The tendency is to exclude out-of-court statements when there are significant questions about the declarant’s sincerity while admitting such statements when those questions are absent.\textsuperscript{176} The Advisory Committee Note reasons that when a person is willing to act on the basis of his or her belief, that willingness is powerful evidence of the sincerity of their belief and, consequently, warrants removing their nonverbal action from the scope of the hearsay definition. That reasoning is why proof of the group’s real world reliance on the nonscientific expertise is so critical. A showing of that reliance not only increases the probative value of the evidence as proof of the reliability of the expertise, the fact of reliance is also the key to defeating the plausible hearsay objection to testimony about the out-of-court reliance.

Before closing this subsection, one other possibility should be mentioned. It

\textsuperscript{170} \textit{See id.; see also} 2 McCORMICK ON EVIDENCE \S 250 (John W. Strong ed., 5th ed. 1999).


\textsuperscript{172} 2 McCORMICK ON EVIDENCE \S 250 (John W. Strong ed., 5th ed. 1999).

\textsuperscript{173} Fed. R. Evid. 801(a).

\textsuperscript{174} Fed. R. Evid. 801(a) advisory committee’s note (citing Edmund M. Morgan, \textit{Hearsay Dangers and the Application of the Hearsay Concept}, 62 HARV. L. REV. 177, 214, 217 (1948)).


\textsuperscript{176} \textit{See, e.g.,} Fed. R. Evid. 803(2) (the excited utterance exception).
is realistic to think that the proponent will adduce live testimony about experts’ out-of-court reliance on a technique. However, it seems fanciful to think that the proponent would offer formal testimony that in the real world, laypersons commonly rely on automobile mechanics to repair their vehicles. In this situation, it is far more likely that the judge would obviate the need for live testimony by permitting judicial notice of such reliance. Federal Rule of Evidence 201(b)(1) allows judicial notice of facts which are “generally known within the territorial jurisdiction of the trial court.” 177 Thus, the judge could formally instruct the jury on the fact of reliance, 178 or the judge might simply permit counsel to informally refer to that fact during closing argument. 179

However, a caveat must be borne in mind. It would be proper for the judge to take notice of the proposition that in the real world most laypersons customarily rely on automobile mechanics to diagnose engine malfunctions. It would be a very different matter for the judge to take notice of the categorical proposition that automotive mechanics always correctly diagnose or do so in a certain percentage of cases. There is a well-settled parallel in the law of judicial notice. In a similar vein, courts routinely notice the existence of court records such as opinions filed by judges, but the same courts balk at going further and noticing the truth of findings of fact set forth in the opinions. 180 At most, the judge should notice the historical fact of reliance and instruct the jury that the proponent may use the reliance as “some evidence” of the reliability of the type of opinion relied upon. However, the judge should afford counsel the opportunity to argue and debate the strength of the inference of reliability from reliance.

V. CONCLUSION

On balance, we should be grateful for the Court’s decision in *Kumho Tire*. 181 A more doctrinaire Court might have handed down a disastrous opinion. For instance, the Court could have decided that even nonscientific expert testimony must run the gauntlet of the factors listed in *Daubert*. 182 That decision would have been a grave mistake, constraining nonscientific expertise with an ill-fitting straightjacket. Or the Court could have tasked the lower courts to develop *Daubert*-like sets of factors for every expert discipline. That task would have imposed an enormous

177. Fed. R. Evid. 201(b)(1).
178. See Fed. R. Evid. 201(g).
180. See Edward J. Imwinkelried et al., California Evidentiary Foundations 503-04 (2d ed. 1994) (citing Sosinsky v. Grant, 8 Cal. Rptr. 2d 552, 564 (Cal. Ct. App. 1991) (“[N]either a finding of fact made after a contested adversary hearing nor a finding of fact made after any other type of hearing can be indisputably deemed to have been a correct finding. . . . Taking judicial notice of the truth . . . would appear . . . to be tantamount to taking judicial notice that the judge’s factual finding must necessarily have been correct and that the judge is therefore infallible. We resist the temptation to do so.”); Gilmore v. Superior Court, 281 Cal. Rptr. 343, 344-45 (Cal. Ct. App. 1991); Bach v. McNeils, 255 Cal. Rptr. 232 (Cal. Ct. App. 1989)).
burden on the lower courts. However, common sense triumphed, and the Kumho Tire Court avoided both of those serious errors. In the vernacular, thanks to the Court's good sense, the law of expert testimony "dodged a bullet."

Having given the Kumho Tire opinion its due, however, we must acknowledge that the opinion gives the lower courts little guidance as to the proper approach to assessing the reliability of nonscientific expertise. While the opinion underscores the problem of self-validating disciplines, the only factor stressed in the opinion—the consideration whether the expert had used "in the courtroom the same level of intellectual rigor that characterizes the practice . . . in the relevant field"—is of no assistance to a judge struggling to decide whether the discipline in question amounts to nothing more than a self-validating field.

This Article does not attempt to sketch a universal theory for assessing the reliability of nonscientific expertise. To be blunt, it is doubtful whether such a theory will ever emerge. As some of the leading commentators, Professor David Faigman and his coauthors, have remarked, "If judges have gatekeeping responsibilities for all expert testimony, the challenge [under] Kumho will be to describe a [single] framework around which [all] the sundry forms of expertise should be evaluated. This is no easy task." This Article intends to make only a modest, limited contribution to the challenge of identifying factors that will be helpful to both trial judges and jurors. Hopefully, the lower courts will find the two proposed factors to be of some utility in their quest to separate the wheat from the chaff of expert testimony.