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## **What Is an Expert Witness?** (Rule 702)

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“Credence should be given to one skilled in his peculiar profession.”<sup>1</sup>

At common law, opinion testimony was disfavored, on the theory that jurors were fully capable of drawing their own inferences from factual evidence. To the extent dispute resolution required expert knowledge, courts could empanel jurors with special qualifications or seek the aid of skilled persons whose opinions the judge could adopt or reject.<sup>2</sup> A third method evolved whereby a learned person could offer an opinion directly to the jury, though judges were doubtful about the practice.<sup>3</sup> By the late eighteenth century, the practice of using experts to offer opinion testimony was established.<sup>4</sup>

Today, “expert inflation” has set in, and almost no case may proceed without expert opinion witnesses on both sides. “In modern trials the expert is as common as the lawyer. Case

after case, civil or criminal, state or federal, turns on the testimony of one or more of many kinds of experts.”<sup>5</sup> It is not surprising then that courts and counsel have focused much of their energy in litigation on defining the parameters of expert testimony: Who can serve as an expert and what opinions can the expert offer the factfinder? Because the expert’s ability to offer opinions rather than simply factual observations can be a powerful influence in trials, the definitional concern at common law and the enactment of formal rules of evidence have been how courts ensure that expert testimony is a reliable aid and not a hindrance to the factfinder’s task.

This chapter addresses the modern definition of an expert witness as established by the applicable rules of evidence, of which Federal Rule of Evidence 702 is the most important. Rule 702 defines experts not only by qualifications but also by the nature of admissible testimony, which must satisfy standards of reliability.

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## **Admissibility Standards for Expert Witness**

### ***The Rule***

#### **Q 1.1 What is an expert witness?**

An expert witness is one allowed to provide opinion testimony at trial based upon his or her specialized knowledge, training or experience, if the opinion is reliable, relevant to the issues in the case, and will help the factfinder to reach a decision. An expert witness need not

have percipient knowledge of the facts of the case. In state and federal courts, experts and their opinions must meet admissibility standards of Rule 702 of the Federal Rules of Evidence (“FRE 702” or “Rule 702”) and its state law analogs that serve to define the opinion witness.

FRE 702 provides the controlling definition for expert witnesses offering testimony in the federal courts.

**Rule 702. Testimony by Expert Witnesses**

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:

- (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;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

**Q 1.1.1 What evidentiary rules apply in state courts?**

Forty-two states have adopted rules of evidence patterned on the Federal Rules of Evidence, most using the original 1975 language for Rule 702.<sup>6</sup> Accordingly, most states generally follow the definitions and limitations for experts used in the federal courts. Although these jurisdictions control and limit the admissibility of expert opinion, their approaches differ. Only nine states have explicitly or impliedly adopted the full holdings of the U.S. Supreme Court in its consideration of the requirements of FRE 702.<sup>7</sup> See chapter 6, “Admissibility of Expert Testimony in State Courts,” for a detailed discussion of individual state requirements.

**Q 1.2 What are the basic requirements of FRE 702?**

The requirements of FRE 702 can be divided into four parts:

- qualifications;
- reliability;
- helpfulness; and
- foundation.

The proposed expert witness must be sufficiently qualified by formal training and education or by practical experience to testify on the particular matters at issue. The opinion must be reliable according to the standards of the expert's field. The opinion must be "helpful" to the factfinder—that is, the opinion must address matters relevant to the dispute that require expertise beyond the ken of ordinary lay jurors or the court. Finally, the opinion must be grounded on the type of data and information customarily relied upon by other experts in the particular field.

**Q 1.3 What is the appropriate subject matter for expert testimony?**

The subject matter of expert testimony is extremely broad, ranging from highly technical sciences to experience-based specialties such as auto mechanics. Any subject can be addressed by opinion testimony so long as it is outside the ordinary knowledge of lay jurors and judges. But an expert will not be allowed to invade the province of the factfinder by substituting his judgment of the evidence in an area that is not beyond the grasp of a lay person.<sup>8</sup> Nor may an expert merely act as an advocate by, for example, setting out conclusory arguments of a party or offering a speculative opinion as to the motives of a party.<sup>9</sup> In most cases, an expert may not offer opinions on the law, which would invade the province of the judge,<sup>10</sup> although an expert may address mixed questions of law and fact.<sup>11</sup>

## ***Helpfulness***

### **Q 1.4 What is the “helpfulness” requirement of FRE 702?**

Rule 702 requires that the expert’s testimony “assist the trier of fact” in resolving the case. The *Daubert* court determined that this helpfulness element required as a precondition of admissibility that the opinion have “a valid scientific connection to the pertinent inquiry.”<sup>12</sup> An expert’s opinion may fail to be helpful to the factfinder in several ways.

- The opinion may be based on assumptions that do not “fit” the actual facts of the case.<sup>13</sup>
- The opinion may not be sufficiently related to or derived from the expert’s stated factual foundation, assumptions and reasoning—the problem of the analytical gap.<sup>14</sup>
- The opinion may simply state the obvious or attempt to rehash the evidence—matters within the ability of the lay factfinder.<sup>15</sup>

## ***Qualifications***

### **Q 1.5 What qualifies an expert under FRE 702?**

The qualifications language of Rule 702 is expansive, and an expert may establish adequate qualifications through formal education and training as well as through sufficient experience in a specific trade or activity.

#### **Q 1.5.1 What level of “knowledge, skill, experience, training, or education” is required?**

The expert must have specialized knowledge; that is, ability beyond that common to the factfinder.<sup>16</sup> The expert need not be the best in his field and, indeed, need meet only a minimum standard to satisfy the rule. Most courts now apply a liberal standard for the review of expert qualifications.<sup>17</sup> Nevertheless, if the subject matter is specific and narrow, a witness with only general credentials in a field of study may be rejected.<sup>18</sup>

**Q 1.5.2 Can an expert qualify solely based on practical experience?**

Yes, in many fields the nature of an expert's specialized knowledge may only derive from experience.<sup>19</sup> The Supreme Court in *Kumho Tire* cited perfume testers as an example of experience-based experts.<sup>20</sup> That does not mean that the experience-based witness may simply cite his practical background, then state a bald opinion without explaining his analysis. The advisory note to the 2000 amendments to Rule 702 provides that "the witness must explain how that experience leads to the conclusion reached, why that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts."<sup>21</sup> See Appendix B for the 2000 amendment to Rule 702, plus advisory notes.

***Reliability and Foundation*****Q 1.6 What foundational facts or data are required for expert testimony?**

An expert's opinion must have supporting facts or data that reasonably comport with the evidence in the case. Rule 703 of the Federal Rules of Evidence ("FRE 703" or "Rule 703") requires that this background information be "of a type reasonably relied upon by experts in the particular field." For example, an automobile accident reconstructionist could not rely solely on statements of bystanders.<sup>22</sup> A psychiatrist could not rely on phases of the moon to determine a person's proclivity to behave irrationally.<sup>23</sup> This foundational data must be accurate and accurately reflect the undisputed circumstances of the case.<sup>24</sup>

**Q 1.6.1 What was the effect of the 2000 amendments on FRE 702?**

In 2000, Rule 702 was amended to add a section (b) that expressly required the testimony to be "based upon sufficient facts or data." The purpose of the amendment was to clarify the relationship between Rules 702 and 703. The analysis of the reliability of an expert's opinion is to be determined within the framework of Rule 702, and the

determination of whether the expert has sufficient facts or data is part of that reliability review. See Appendix B for the 2000 amendment to FRE 702.

### **Q 1.6.2 What are “sufficient” facts or data?**

The formal rules governing expert witnesses in federal court and in most state courts do not expressly specify the quantum of evidence needed as a foundation for admissibility. That is appropriate because the analysis is dependent on the particular field of expertise at issue. Some expert opinions, such as those derived from experience, may require only a review of the circumstances of the case. Some fields, such as epidemiology or toxicology, have more precisely defined requirements for reliable support.<sup>25</sup> The sufficiency requirement does not mean that the admissibility of expert opinion is dependent on which version of the facts the expert accepts. Experts may reach differing conclusions based on competing fact scenarios.<sup>26</sup> If an expert relies upon factual assumptions that are unfounded or plainly inaccurate, however, then the factual predicate is insufficient, and the opinion should be excluded.<sup>27</sup>

### **Q 1.6.3 What is meant by “reliable” principles and methods?**

*Daubert*, which dealt with medical science, defined the standard for evidentiary reliability as “ground[ed] in the methods and procedures of science.”<sup>28</sup> More generally, the requirement is that an expert’s methodology be appropriately grounded in the methods and procedures of her specific field. *Daubert* set out certain suggested indicia for evaluating the opinions *sub judice*, but the factors to be applied in each case will vary with the discipline involved.

### **Q 1.6.4 What is meant by “reliable application” of principles and methods to the facts of the case?**

As is discussed in detail in the following chapters, it is not sufficient for an expert to simply cite reliable principles and methods, then draw a conclusion without demonstrating how he reasoned from his methodology to his result. Even if the expert’s technique is valid, his opinion is not reliable if he misuses the methodology.<sup>29</sup> The Supreme

Court in *General Electric Co. v. Joiner*<sup>30</sup> emphasized that “conclusions and methodology are not entirely distinct from one another.”<sup>31</sup> If there is an analytical gap between the expert’s data and his opinion, then a court need not admit the testimony.

## Notes to Chapter 1

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1. “*Cuilibet in sua arte perito est credendum.*” 1 SIR EDWARD COKE, INSTITUTES OF THE LAWS OF ENGLAND; OR A COMMENT UPON LITTLETON, at 125, *quoted in* HERBERT BROOM, A SELECTION OF LEGAL MAXIMS 572 (T. & J.W. Johnson 1854).
2. Learned Hand, *Historical and Practical Considerations Regarding Expert Testimony*, 15 HARV. L. REV. 40 (1901).
3. See *Rex v. John Wright*, in WILLIAM OLDNALL RUSSELL, CROWN CASES 456 (1825).
4. The 1783 case of *Folkes v. Chadd* is held out as the progenitor of the practice, though the case apparently reflects an evolution that had been in progress. See discussion in the book review by Edward K. Cheng, *Same Old, Same Old: Scientific Evidence Past and Present*, 104 MICH. L. REV. 1387, 1388 (2006).
5. FAUST F. ROSSI, EXPERT WITNESSES 3 (1991).
6. 6 JACK B. WEINSTEIN & MARGARET A. BERGER, WEINSTEIN’S FEDERAL EVIDENCE, Table of State and Military Adaptations of Federal Rules of Evidence T-1, T-95 to T-101 (Joseph M. McLaughlin ed., Matthew Bender 2d ed. 2005).
7. See generally the discussion in DAVID H. KAYE, DAVID E. BERNSTEIN, & JENNIFER J. MNOOKIN, THE NEW WIGMORE: A TREATISE ON EVIDENCE: EXPERT EVIDENCE § 7.4.2 *Trends in State Courts* (Aspen Publishers, current through 2013); David E. Bernstein & Jeffrey D. Jackson, *The Daubert Trilogy in the States*, 44 JURIMETRICS J. 351, 357 (2004).
8. See *ID Sec. Sys. Can., Inc. v. Checkpoint Sys., Inc.*, 198 F. Supp. 2d 598 (E.D. Pa. 2002) (rejecting expert’s explanation of economic rationale—namely, the profit motive—as not beyond the grasp of the ordinary juror). The rule is long settled and well stated by the Supreme Court in *Salem v. U.S. Lines Co.*, 370 U.S. 31, 35 (1962) (quoting *U.S. Smelting Co. v. Parry*, 166 F. 407, 411, 415 (10th Cir. 1909) (“[E]xpert testimony not only is unnecessary but indeed may properly be excluded in the discretion of the trial judge ‘if all the primary facts can be accurately and intelligibly described to the jury, and if they, as men of common understanding, are as capable of comprehending the primary facts and of drawing correct conclusions from them as are witnesses possessed of special or peculiar training, experience, or observation in respect of the subject under investigation. . . .”).
9. See, e.g., *Highland Capital Mgmt., LP v. Schneider*, 379 F. Supp. 2d 461 (S.D.N.Y. 2005) (rejecting attorney expert’s opinion regarding state of mind and motivation of parties).
10. See, e.g., *DiBella v. Hopkins*, 403 F.3d 102 (2d Cir. 2005) (excluding legal conclusion that plaintiff’s actions constituted extortion); *United States v. Thanh Quoc Hoang*, 891 F. Supp. 2d 1355 (M.D. Ga. 2012) (in a criminal bank

fraud case, expert could not opine as to sufficiency of government's evidence, which is a legal conclusion); *Bauman v. Am. Family Mut. Ins.*, 836 F. Supp. 2d 1196, 1198–1202 (D. Colo. 2011) (lawyer expert's opinion that insurer was obligated to pay claim usurped function of trial judge to instruct jury on law); *FedEx Ground Package Sys., Inc. v. Applications Int'l Corp.*, 695 F. Supp. 2d 216, 221–23 (W.D. Pa. 2010) (opinions reciting general principles of copyright law and whether the parties complied with the law were outside realm of proper expert testimony); *Scottsdale Ins. Co. v. City of Waukegan*, 689 F. Supp. 2d 1018, 1022–26 (N.D. Ill. 2010) (opinions as to scope of insurance policies and duties under the policies constituted improper conclusions of law); *Sancom, Inc. v. Qwest Commc'ns Corp.*, 683 F. Supp. 2d 1043 (D.S.D. 2010) (expert not allowed to explain definitions in federal telecommunications law); *Ex parte Skelton*, 434 S.W.3d 709, 724–27 (Tex. App.—San Antonio 2014, pet. ref'd) (improper for law officer to opine as to guilt or innocence).

11. See *Mason Ladd, Expert Testimony*, 5 VAND. L. REV. 414, 424–25 (1952) (“Fairness and efficiency dictate that an expert may state an opinion on a mixed question of law and fact as long as the opinion is confined to the relevant issues and is based on proper legal concepts.”).

12. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 591–92 (1993).

13. See, e.g., *United States v. Schiff*, 602 F.3d 152, 172–76 (3d Cir. 2010) (in stock fraud case, expert failed to disaggregate confounding factors so opinion did not fit issue of materiality); *Fireman's Fund Ins. v. Canon U.S.A., Inc.*, 394 F.3d 1054 (8th Cir. 2005) (excluding fire simulation experiment that was not similar to accident conditions, thus not a “fit”); *Bogosian v. Mercedes-Benz of N. Am., Inc.*, 104 F.3d 472 (1st Cir. 1997) (excluding expert engineer's opinion regarding gear shift defect based on assumptions that did not match plaintiff's own testimony); *H.M. v. Haddon Heights Bd. of Educ.*, 822 F. Supp. 2d 439, 448 (D.N.J. 2011) (New Jersey “net opinion” rule is merely restatement of principle that expert's bare conclusions are inadmissible under the fit requirement of Rule 702); *Pritchard v. Dow Agro Scis.*, 705 F. Supp. 2d 471, 492–93 (W.D. Pa. 2010) (opinion that reports showed association of exposure to chemicals like Dursban and increased incidence of lymphoma did not fit with conclusion that Dursban actually caused plaintiff's illness).

14. See, e.g., *Knight v. Kirby Inland Marine, Inc.*, 482 F.3d 3437 (5th Cir. 2007) (toxicologist's case control studies did not support conclusion that benzene caused plaintiff's illness); *Casey v. Geek Squad® Subsidiary Best Buy Stores L.P.*, 823 F. Supp. 2d 334 (D. Md. 2011) (too great an analytical gap between facts and opinion that repair work caused electrical shock from personal computer); *McCoy v. Whirlpool Corp.*, 379 F. Supp. 2d 1187 (D. Kan. 2005) (electrical expert's theory did not explain how evidence supported his hypothesis of fire causation); *Denham v. Holmes ex rel. Holmes*, 60 So. 3d 773, 787–89 (Miss. 2011) (analytical gap in accident reconstructionist's conclusion based on lack of skid marks); *U.S. Renal Care, Inc. v. Jaafar*, 345 S.W.3d 600, 611–13 (Tex. App.—San Antonio 2011, pet. denied) (impermissible analytical gap between data and expert's calculation of unpaid accounts receivable).

15. See, e.g., *Walters v. Prince George's County*, 2013 WL 497920 (D. Md. Feb. 7, 2013) (expert's knowledge would not help jury, as any layperson could conclude that police record would impede effort to gain government employment); *Ankuda v. R.N. Fish & Son, Inc.*, 535 F. Supp. 2d 170, 174 (D. Me. 2008) (rejecting maritime expert; "statement of the obvious—which is within the ken of a lay jury or a judge presiding at a bench trial—is not a proper subject of expert testimony"); *Highland Capital*, 379 F. Supp. 2d 461 (expert's factual narrative based on record evidence not helpful to jury).

16. See 3 STEPHEN A. SALTZBURG, MICHAEL M. MARTIN, & DANIEL J. CAPRA, FEDERAL RULES OF EVIDENCE MANUAL § 702.02, at 702–09 (Matthew Bender, 10th ed. 2011) (knowledge that "red liquid coming from the body is blood" is not the type of opinion that falls under FRE 702).

17. See, e.g., *Elcock v. Kmart Corp.*, 233 F.3d 734, 742 (3d Cir. 2000) ("This court has had, for some time, a generally liberal standard of qualifying experts."); *Rushing v. Kan. City S. Ry. Co.*, 185 F.3d 496, 507 (5th Cir. 1999) ("As long as some reasonable indication of qualifications is adduced, the court may admit the evidence without abdicating its gate-keeping function.").

18. See, e.g., *Morritt v. Stryker Corp.*, 973 F. Supp. 2d 177, 187–89 (E.D.N.Y. 2013) (orthopedic surgeon not qualified to opine re alleged manufacturing defect in knee prosthesis); *Shreve v. Sears, Roebuck & Co.*, 166 F. Supp. 2d 378, 392 (D. Md. 2001) ("[A]n expert who is a mechanical engineer is not necessarily qualified to testify as an expert on any issue within the vast field of mechanical engineering."); *In re Med Diversified, Inc.*, 334 B.R. 89, 96–97 (E.D.N.Y. 2005) (experienced accountant not qualified to value "unique and highly regulated business of in-home health care"); *Forte v. Citicorp Mortg., Inc.*, 881 A.2d 386 (Conn. 2005) (expert experienced in high-end commercial banking had no expertise in procedures of residential lending).

19. See FED. R. EVID. 702 advisory committee's note, 2000 amendments [hereinafter 702 Advisory Note] ("In certain fields, experience is the predominant, if not sole, basis for a great deal of reliable expert testimony.").

20. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 151 (1999).

21. 702 Advisory Note, *supra* note 19.

22. See FED. R. EVID. 703 advisory committee's note.

23. See example cited in *Daubert*, 509 U.S. at 591.

24. See, e.g., *Slaughter v. S. Talc Co.*, 919 F.2d 304, 307 (5th Cir. 1990) (expert based opinions on examination reports that were replete with errors and that contradicted plaintiffs' own statements); *Chan ex rel. Estate of Brewer v. Coggins*, No. 3:05-CV-254 HTW-LRA, 2007 WL 2783355, at \*2–4 (S.D. Miss. 2007) (accident reconstructionist ignored turning radius of truck and testimony of eyewitnesses), *aff'd*, 294 F. App'x 939 (5th Cir. 2008).

25. See, e.g., *Daubert v. Merrell Dow Pharm., Inc.*, 43 F.3d 1311, 1320–22 (9th Cir. 1995) (to establish causation, expert must have epidemiological evidence of a relative risk greater than two); *Merrell Dow Pharm., Inc. v. Havner*, 953 S.W.2d 706, 727 (Tex. 1997) (a single epidemiologic study does not establish association); Bert Black & David E. Lilienfeld, *Epidemiologic Proof in Toxic Tort Litigation*, 52 FORDHAM L. REV. 732 (1984).

26. See 702 Advisory Note, *supra* note 19.
27. See, e.g., *Elcock*, 233 F.3d at 754–56 nn.12–13 (discussing cases excluding opinions not grounded in the facts of the case).
28. *Daubert*, 509 U.S. at 590.
29. Catherine E. Brixen & Christine M. Meis, Note, *Codifying the “Daubert Trilogy”*: *The Amendment to Federal Rule of Evidence 702*, 40 JURIMETRICS J. 527, 533 (2000).
30. *Gen. Elec. Co. v. Joiner*, 522 U.S. 136 (1997).
31. *Id.* at 146.