

1991

## Expert Evidence

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### Recommended Citation

Gross, Samuel R. "Expert Evidence." *Wis. L. Rev.* 1991 (1991): 1113-232.

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# ARTICLES

## EXPERT EVIDENCE

SAMUEL R. GROSS\*

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\* Professor of Law, University of Michigan Law School. In writing this article, I was helped by comments and suggestions from many people, including the late John Kaplan, Jo Cecil, Phoebe Ellsworth, Jack Friedenthal, Paul Goldstein, John Langbein, Richard Lempert, Miguel Mendez, Robert Mnookin, Paul Reingold, Nicholas Rine, Jack Weinstein, Thomas Willging, and the participants at presentations at the 1986 Law and Society Meeting and to the University of Michigan law faculty. I also received extensive assistance from Terry Adams of the Institute for Social Research and Terrence Dungworth of the Rand Corporation, and useful information from Gordan Gains, Mark Heyrman, and Daniel Rubinfeld. Dorothy Kelly, Moanna Kutsche, and Marcea Metzler typed and retyped the manuscript, and several research assistants helped me greatly along the way, especially in compiling the data that are partly reported here: Patrick Adair, Thomas Byrne, Kenneth Dintzer, Heidi Glance, Yonkel Goldstein, Thomas Howlett, Samantha Mitty, Collen O'Brien, Jeffrey Schneider, and Tracy Thompson. Any errors, and any credit that may be left over, are my own.

## INTRODUCTION

It seems that the use of expert witnesses in common law courts has always been troublesome. In his *Treatise on the Law of Evidence*, first published in 1848, Judge John Pitt Taylor describes several classes of witnesses whose testimony should be viewed with caution, including: enslaved people (which accounts for "the lamentable neglect of truth, which is evinced by most of the nations of India, by the subjects of the Czar, and by many of the peasantry in Ireland"); women (because they are more susceptible to "an innate vain love of the marvelous"); and "foreigners and others . . . living out of the jurisdiction" (who have little fear of the consequences of perjury). But, "[p]erhaps the testimony which least deserves credit with a jury is that of *skilled witnesses* . . . . [I]t is often quite surprising to see with what facility, and to what extent, their views can be made to correspond with the wishes and interests of the parties who call them."<sup>1</sup> While others of Judge Taylor's stereotypes have not stood the test of time, this last one has been remarkably durable. It was no novelty in 1848, and with a little effort one can find an abundance of similar comments from lawyers and judges in every decade since.<sup>2</sup> In fact, we have become thoroughly accustomed to this view of experts. And yet isn't it remarkable—isn't it, in fact, shocking—that casual observers and even interested partisans are treated by the legal profession with at least reasonable respect, but trained and experienced doctors, engineers and scientists are castigated?

Reading the comments of lawyers and judges, it is easy to get the impression that expert witnesses are intruders who disrupt the judicial search for truth. This is false, of course. As Karl Menninger pointed

1. JOHN PITT TAYLOR, *TREATISE ON THE LAW OF EVIDENCE* §§ 45-50, at 65-69 (3d ed. 1858) (emphasis in original).

2. For example: "[I]t has often distressed and disturbed sensitive minds, when seeking to ascertain what the truth was, to be obliged to resort to the opinions of men who have seemed to regard their line of duty as lying in the direction of the success of the one who employed them. . . ." Emory Washburn, *Testimony of Experts*, 1 AM. L. REV. 45, 48-49 (1866); "[I]f there was any kind of testimony not only of no value, but even worse than that, it was . . . that of medical experts." *Rutherford v. Morris*, 77 Ill. 397, 405 (1875); "[N]ow that they [expert witnesses] as a class have become retained agents of parties, their utterances have lost all judicial authority." *Persons v. State*, 16 S.W. 726, 727 (Tenn. 1891) (excerpt from the trial court's charge to the jury, quoting FRANCIS F. WHARTON, 1 A COMMENTARY ON THE LAW OF EVIDENCE IN CIVIL ISSUES § 454, at 425 (1888)); "Of all the cant that's canted in this canting world, expert medical cant is the most pernicious. . . ." Frank S. Rice, *The Medical Expert as a Witness*, 10 GREEN BAG 464 (1898); "The expert witness evil, which is a blight on judicial administration and a discredit to the medical profession, must sooner or later be faced." *Lowder v. Standard Auto Parts Co.*, 287 N.W. 211, 215 (Neb. 1939) (opinion of Johnsen, J., concurring in part and dissenting in part).

out, the expert "is not self invited to these parties. He is not a trespasser. He is called, then he is questioned, criticized, disputed, attacked, suspected, disregarded and ridiculed."<sup>3</sup> The expert witness that lawyers vilify is a creature of their own creation.

Needless to say, the contempt this process generates is not one-sided. Experts in other fields have equally strong feelings about the use to which their knowledge is put in court. In 1923 Wigmore wrote: "Professional men of honorable instincts and high scientific standards look upon the witness box as a golgotha, and disclaim all respect for the law's methods of investigation."<sup>4</sup> This was not a novel observation either; similar sentiments have been expressed regularly for over a century.<sup>5</sup> To put it bluntly, in many professions service as an expert witness is not generally considered honest work. As one doctor explained: "Within the medical profession, where there is a reluctance to testify in court, there are sometimes heard derogatory remarks concerning those who testify frequently as expert witnesses. The attitude seems to be that such men must be hard pressed financially to be coerced into this duty . . . ."<sup>6</sup>

In fact, these two points of view are complementary aspects of a common description of the use of expert evidence in American courts. Experts in other fields see lawyers as unprincipled manipulators of their disciplines, and lawyers and experts alike see expert witnesses—those members of other learned professions who will consort with lawyers—as whores. The best that anyone has to say about this system is that it is not as bad as it seems, and that other methods may be worse.

In the face of these unflattering descriptions, one would expect pressure and suggestions for change, and there have been many. Indeed, a review of the literature on expert evidence uncovers three long-term

3. KARL MENNINGER, *THE CRIME OF PUNISHMENT* 140 (1968).

4. JOHN HENRY WIGMORE, *EVIDENCE IN TRIALS AT COMMON LAW* § 563, at 760 (Chadbourne rev. 1979) [hereinafter WIGMORE].

5. For example: "Medical evidence delivered in our courts of law has of late become a public scandal and a professional dishonour." E. S. TURNER, *CALL THE DOCTOR: A SOCIAL HISTORY OF MEDICAL MEN* 205 (1958) (quoting *BRIT. MED. J.* (May 2, 1963)); see also Clemens Herschel, *Services of Experts in the Conduct of Judicial Inquiries*, 21 *AM. L. REV.* 571, 572-73 (1887); Henry Smith Williams, *Medical Experts and the Homicide*, 164 *N. AM. REV.* 160 (1897); Frederic E. Elliott & Ramsey Spillman, *Medical Testimony in Personal Injury Cases*, 2 *LAW & CONTEMP. PROBS.* 466, 466-67 (1935); Harry E. Mock, *Medical Testimony*, 1 *AM. J. MED. JURISPRUDENCE* 119 (1938); Manfred S. Guttmacher, *Problems Faced by the Impartial Expert in Court: The American View*, 34 *TEMP. L.Q.* 369 (1961); Lawrence S. Kubie, *The Ruby Case: Who or What Was on Trial?*, 1 *J. PSYCHIATRY & LAW* 475 (1973); Clinton L. Compere, *Unbiased Medical Evaluation*, 1967 *NAT'L MEDICOLEGAL SYMP., PROC.*, 14, 15 (1967); Curran, *Uncertainty in Prognosis of Violent Conduct: The Supreme Court Lays Down the Law*, 310 *MED. INTELLIGENCE* 1651 (1984).

6. Samuel R. Gerber, *Expert Medical Testimony and the Medical Expert, in PHYSICIAN IN THE COURTROOM* 65, 72 (Oliver Schroeder, Jr. ed., 1957).

fixtures: (1) expert testimony is regularly said to be a weak point in the system of adversarial fact finding—in fact, a disgrace—and at the same time an increasingly important element of litigation;<sup>7</sup> (2) expert testimony is a constant candidate for proposed reforms, usually ones based on the use of neutral or court-appointed experts;<sup>8</sup> and (3) not much changes. This Article is addressed to the questions that are inevitably suggested by this seemingly frozen debate: How do we use expert evidence? Is our method of doing so as bad as it seems? If so, why has it not been changed? And should it be changed now, and in what ways?

These are important questions for several reasons. The most obvious is that expert evidence does play a large (and perhaps growing) role in litigation. Whole categories of cases are dominated by issues that can only be resolved with expert knowledge. In addition, the use of expert evidence in litigation has important implications outside the legal system. In a sense this is true for any information that is used in evidence, but for lay evidence these effects are spread unsystematically among the assortment of people who happen to get caught up in litigation. Expert evidence, by contrast, is generated at the intersection between the law and other specialized disciplines, and its use has direct and concentrated effects on these disciplines.

Finally, the use of expert evidence is only an example of a general issue of great importance. Judging the historical facts of common events is a particular (if not an exclusive) province of litigation, but evaluating expert information is not. Expert information is used by countless decision-makers, from patients when they choose between competing medical options to Congress when it considers proposed weapons systems. In each case, the decision-maker must come to terms with the need to act on the basis of information that she is not competent to fully understand.

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7. E.g., *Thorn v. Worthing Skating Rink Co.*, L. R., 6 Ch. D. 415, 416 (1876); CHARLES T. MCCORMICK, *HANDBOOK OF THE LAW OF EVIDENCE* § 17, at 34-38 (1954); TAYLOR, *supra* note 1 (1848); 2 WIGMORE, *supra* note 4, § 563; Learned Hand, *Historical and Practical Considerations Regarding Expert Testimony*, 15 HARV. L. REV. 40 (1901); Mason Ladd, *Expert Testimony*, 5 VAND. L. REV. 414 (1952); Jack B. Weinstein, *Improving Expert Testimony*, 20 U. RICH. L. REV. 473 (1986).

8. See, e.g., Washburn, *supra* note 2, at 61; Hand, *supra* note 7; WIGMORE, *supra* note 4, § 563; Charles T. Beuschel, *The Use of Experts by the Courts*, 54 HARV. L. REV. 1105 (1941); MCCORMICK, *supra* note 7; ASSOCIATION OF THE BAR OF THE CITY OF NEW YORK, COMMITTEE ON THE MEDICAL EXPERT TESTIMONY PROJECT, *IMPARTIAL MEDICAL TESTIMONY* (1956) [hereinafter NEW YORK BAR]; F. Hastings Griffin, Jr., *Impartial Medical Testimony: A Trial Lawyer in Favor*, 34 TEMP. L.Q. 402 (1961); Note, *The Doctor in Court: Impartial Medical Testimony*, 40 S. CAL. L. REV. 728 (1967); Theodore I. Botter, *The Court-Appointed Impartial Expert*, in *USING EXPERTS IN CIVIL CASES* 57 (Melvin D. Kraft ed., 1977); Tihirih V. Lee, *Court Appointed Experts and Judicial Reluctance: A Proposal to Amend Rule 706 of the Federal Rules of Evidence*, 6 YALE L. & POL'Y REV. 480 (1988).

In many respects the problem is similar across fields, and successful strategies for solving it (if they can be found) may have a lot in common.

It might be helpful if I express my point of view at the outset. I do not like the common law method of using expert evidence. I think it makes poor use of scientific and other forms of specialized knowledge, at a high cost to the participants and to the legal system. Needless to say, I think this system should be changed. We ought to be able to do better.

In Section I of this Article I give a brief overview of the scope of the issue. This overview is based primarily on data from an ongoing empirical research project on jury trials in California state courts. A full analysis of the data on expert witnesses will be published elsewhere; in this context, I merely provide some general information on the frequency of expert testimony, the types of experts who are called and the contexts in which they appear.

In Section II I present a short case study of a trial that illustrates many of the problems of our method of using expert evidence. Then, in Section III, I give a detailed description of the common law procedures that govern the use of expert evidence, and explain how these procedures create unparalleled opportunities for bias and manipulation. This discussion is based in part on a different sort of data: practical articles and books by trial lawyers, offering advice to their colleagues on how to use expert witnesses to best advantage. In Section IV, I discuss the most common attempted reform in the use of expert evidence—the use of neutral court-appointed experts—and explain why it has failed repeatedly in formal litigation, but works reasonably well in some administrative contexts. Finally, in Section V I review the range of possible changes in our current system of using expert information, several of which might be workable improvements. I focus in particular on two proposals that rely on court-appointed experts, but which, unlike previous procedures, make their use mandatory.

I should add a word on what this article is *not* about. One of the basic questions about expert evidence concerns novel types of expertise: how should courts decide whether to admit expert testimony on some new scientific theory or claim?<sup>9</sup> In the past decade or two, this question has been debated repeatedly in the context of a series of novel (or formerly

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9. See, e.g., *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923); Bert Black, *A Unified Theory of Scientific Evidence*, 56 *FORDHAM L. REV.* 595 (1988); Paul C. Giannelli, *The Admissibility of Novel Scientific Evidence: Frye v. United States a Half-Century Later*, 80 *COLUM. L. REV.* 1197 (1980); Edward J. Imwinkelried, *The Standard for Admitting Scientific Evidence: A Critique from the Perspective of Juror Psychology*, 28 *VILL. L. REV.* 554 (1983); Lucinda E. Minton, *Expert Testimony Based On Novel Scientific Techniques: Admissibility Under the Federal Rules of Evidence*, 48 *GEO. WASH. L. REV.* 774 (1980).

novel) types of expertise—the reliability of eyewitness testimony,<sup>10</sup> post-rape trauma syndrome,<sup>11</sup> DNA identification,<sup>12</sup> etc. I do not add my voice to those debates. Similarly, a great deal has been written about the use of experts in the peculiar and extreme context of mass tort litigation—asbestos claims,<sup>13</sup> the agent orange litigation,<sup>14</sup> bendectin cases,<sup>15</sup> and the like. I do not focus on this problem. Instead, my aim is to describe the use of ordinary expert witnesses who testify in established areas of expert evidence, in ordinary civil and criminal litigation: physicians in personal injury and medical malpractice trials, engineers in product liability trials, pathologists in homicide trials, and so forth.

### I. THE SCOPE OF EXPERT TESTIMONY

There is next to nothing to be learned from published data on the use of experts in American litigation. A few patchy studies report that

10. See, e.g., *United States v. Downing*, 753 F.2d 1224 (3rd Cir. 1985); *State v. Chapple*, 660 P.2d 1208 (Ariz. 1983); *People v. McDonald*, 690 P.2d 709 (Cal. 1984); ELIZABETH F. LOFTUS, *EYEWITNESS TESTIMONY* (1979); *EYEWITNESS TESTIMONY, PSYCHOLOGICAL PERSPECTIVES* (Gary L. Wells & Elizabeth F. Loftus eds., 1984); Fredric D. Woocher, Note, *Did Your Eyes Deceive You? Expert Psychological Testimony on the Unreliability of Eyewitness Identification*, 29 STAN. L. REV. 969 (1977).

11. See, e.g., Ernest S. Graham, *Rape Trauma Syndrome: Is It Probative of Lack of Consent?* 13 LAW & PSYCHOL. REV. 25 (1989); Patricia A. Tetreault, *Rape Myth Acceptance: A Case for Providing Educational Expert Testimony in Rape Jury Trials*, 7 BEHAVIORAL SCI. & LAW 243 (1989); D. Suzanne Baldwin, Comment, *The Use of Rape Trauma Syndrome As Evidence in a Rape Trial: Valid or Invalid?* 21 WAKE FOREST L. REV. 93 (1985).

12. See, e.g., Dan L. Burk, *DNA Fingerprinting: Possibilities and Pitfalls of a New Technique*, 28 JURIMETRICS J. 455 (1988); William C. Thompson & Simon Ford, *DNA Typing: Acceptance and Weight of New Genetic Information Tests*, 75 VA. L. REV. 45 (1989).

13. See, e.g., *In re Asbestos Litig.*, 829 F.2d 1233 (3rd Cir. 1987); Michael D. Green, *When Toxic Worlds Collide: Regulatory and Common Law Prescriptions for Risk Communication*, 13 HARV. ENVTL. L. REV. 209 (1989). See generally PAUL BRODEUR, *OUTRAGEOUS MISCONDUCT: THE ASBESTOS INDUSTRY ON TRIAL* (1985).

14. See, e.g., *In re "Agent Orange" Prod. Liab. Litig.*, 611 F. Supp. 1223 (E.D.N.Y. 1985) (Weinstein, C. J.); PETER H. SCHUCK, *AGENT ORANGE ON TRIAL, MASS TOXIC DISASTERS IN THE COURTS* 140, 227-42 (1986); Black, *supra* note 9, at 674-76; Jack L. Landau & W. Hugh O'Riordan, *Of Mice and Men: The Admissibility of Animal Studies to Prove Causation in Toxic Tort Litigation*, 25 IDAHO L. REV. 521, 560-61 (1989).

15. See, e.g., *Richardson v. Richardson-Merrell, Inc.*, 857 F.2d 823 (D.C. Cir. 1988); *Ealy v. Richardson-Merrell, Inc.*, 897 F.2d 1159 (D.C. Cir. 1990); Black, *supra* note 9, at 679-81; Landau & O'Riordan, *supra* note 14, at 561-62.

experts are used in a sizeable minority of felony prosecutions,<sup>16</sup> and that they are more likely to be called by the prosecution.<sup>17</sup> There are no systematic studies of the use of experts in civil cases. The data described here will begin to fill that gap. They are based on reports on 529 civil trials that led to jury verdicts in California State Superior Courts in 1985 and 1986. For the present, I will confine myself to a brief sketch of the most conspicuous patterns in the use of experts in these cases.<sup>18</sup>

1. *The frequency of expert testimony.* Experts testified in 86% of these civil jury trials. Overall, there were an average of 3.3 experts per trial; in the trials in which any experts appeared, there were an average of 3.8. Most trials with experts had two, three, four or five of them. Plaintiffs called more expert witnesses than defendants—about 64% of the total.

2. *The specialties of expert witnesses.* Half of the experts in our data were medical doctors, and an additional 9% were other medical professionals—clinical psychologists, rehabilitation specialists, dentists, etc. Engineers, scientists and related experts made up the next largest category, nearly 20% of the total. The only other sizeable categories were experts on various aspects of business and finance (11%), and experts in reconstruction and investigation (8%).

3. *The cases in which experts appear.* Over 70% of these trials concerned claims of wrongful death or personal injury. As a group, these trials involved more experts than the remainder. There were expert appearances in nearly 95% of the personal injury or death trials, an average of 3.8 witnesses per case. Looking at smaller categories, the highest rates of use were in: (i) medical malpractice cases (97% of trials, an average of five witnesses per trial), where almost all the witnesses were medical experts and (ii) products liability cases (100% of trials, an average of 4.7 witnesses per trial), where an unusually high proportion of the witnesses (1.8 per trial) were engineers, scientists and the like.

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16. HARRY KALVEN, JR. & HANS ZEISEL, *THE AMERICAN JURY* 137, 139, 142-43 (1966); Martha A. Myers, *Rules Departures and Making Law: Juries and Their Verdicts*, 13 *LAW & SOC'Y. REV.* 781 (1979); MICHAEL J. SAKS & RICHARD VAN DUIZEND, *THE USE OF SCIENTIFIC EVIDENCE IN LITIGATION*, 5-6 (1983) (citing O. Schroeder, *The Forensic Sciences in American Criminal Justice: A Legal Study Concerning the Forensic Science Personnel* (Forensic Science Foundation, undated)).

17. KALVEN & ZEISEL, *supra* note 16.

18. For a more detailed description see Samuel R. Gross, *Some Data on the Use of Expert Witnesses in California Civil Trials* (1990) (unpublished manuscript, University of Michigan Law School). The data are drawn from reports published in *Jury Verdicts Weekly*, a statewide California jury verdict reporter. Other findings based on the same data are discussed in Samuel R. Gross & Kent D. Syverud, *Getting To No: A Study of Settlement Negotiations and the Selection of Cases for Trial*, 90 *MICH. L. REV.* 319 (1991).



4. *Conflicts between opposing experts.* In nearly three quarters of the trials in which experts testified (or 63% of all trials) there were experts on both sides. In two-thirds of the trials with expert testimony (57% of all trials) there were opposing experts in the same general area of expertise—most often, opposing medical experts. Similarly, for over two-thirds of the appearances by expert witnesses, there were opposing experts in the same general area. Again, such conflicts were particularly common for medical witnesses—their testimony was opposed by other medical witnesses 78% of the time. In sum, most expert witnesses were disputed by similar experts for the opposing side, and most juries had to resolve such disputes.

5. *The testimonial experience of expert witnesses.* Most expert testimony is given by repeat players. Nearly 60% of the appearances by expert witnesses in California Superior Court civil jury trials were by witnesses who testified in such cases at least two times over a six-year period.<sup>19</sup> For a particular appearance before a jury, the average number of times the same expert testified over a six-year period was 9.4; the median was 2.2. It is important to note that these numbers greatly underrepresent the experts' total experience in litigation. They do not, for instance, include testimony in criminal trials or in civil trials in courts other than California State Superior Courts. More important, the numbers do not catch the many cases in which the same experts were consulted, wrote reports, or even testified in depositions, but failed to testify in court because the cases were settled or dismissed before trial.

One way to put the trial experience of witnesses in perspective is to compare it to that of trial lawyers. Judging from 1985-86 cases, when an attorney examines an expert witness in a civil jury trial in California, the expert is twice as likely to have testified in another such case in the preceding six months as the attorney is to have tried one (42% to 21%).<sup>20</sup>

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19. My own data include too few cases to catch many repeat performances by the expert witnesses. The data reported in this paragraph are based on a set of over 6,500 California civil jury trials, from 1980 through 1985, that were coded from *Jury Verdicts Weekly* by the Institute for Civil Justice of the Rand Corporation. These data were made available through the courtesy of Dr. Terrance Dungworth and the Rand Corporation. Ultimately, the entire *Rand Jury Verdicts Weekly* data set will be placed in the public domain under Grant No. SES-87-10503 from the Law and Social Science Program of the National Science Foundation.

20. This comparison is based on data drawn from the two semi-annual indices for Volume 30 (1986) of *Jury Verdicts Weekly*, each of which lists appearances by attorneys and by expert witnesses in the cases reported in the preceding six months.

## II. THE NATURE OF THE PROBLEM: A CASE STUDY

*Wells v. Ortho Pharmaceutical Corporation*<sup>21</sup> is a products liability case. The main plaintiff, Katie Laurel Wells, was born with severe birth defects; her mother had used Ortho-Gynol Contraceptive Jelly—a spermicide manufactured by the defendant—both before and after Katie Wells' unplanned conception. Katie Wells and her parents sued, alleging (1) that Ortho-Gynol contraceptive caused her birth defects, and (2) that the manufacturer had been negligent in failing to warn her mother that such birth defects were a risk of its product. By consent of the parties, the case was tried to the court without a jury in "an exhaustive two-week trial." The presiding judge, the Honorable Marvin Shoob of the Northern District of Georgia, clearly took his task seriously and did a conscientious job. Ultimately, he filed a detailed and carefully justified opinion holding the defendant liable for \$5.1 million in damages. The United States Court of Appeals for the Eleventh Circuit reduced the damage award to slightly more than \$4.7 million and otherwise affirmed;<sup>22</sup> the Supreme Court denied certiorari.<sup>23</sup>

The contested issues in the *Wells* case turned entirely on conflicting expert testimony. Judge Shoob explained carefully how he evaluated this evidence:

[T]he Court considered each expert's background, training, experience, and familiarity with the circumstances of this particular case; and the Court evaluated the rationality and internal consistency of each expert's testimony in light of all the evidence presented. The Court paid close attention to each expert's demeanor and tone. Perhaps most important, the Court did its best to ascertain the motives, biases, and interests that might have influenced each expert's opinion.<sup>24</sup>

This careful and methodical analysis led directly to the judgment: "With few exceptions, the Court found the testimony of plaintiffs' experts generally to be competent, credible, and directed to the specific circumstances of this case. The testimony of defendant's experts, in contrast, often indicated bias or inconsistency."<sup>25</sup>

For example, the plaintiffs' "primary expert witness"<sup>26</sup> was Dr. Bruce Buehler. "The Court found Dr. Buehler to be the most credible of

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21. 615 F. Supp. 262 (N.D. Ga. 1985).

22. *Wells v. Ortho Pharmaceutical Corp.*, 788 F.2d 741 (11th Cir. 1986).

23. 479 U.S. 950 (No. 86-513, Nov. 10, 1986).

24. *Wells*, 615 F. Supp. at 267.

25. *Id.*

26. *Id.* at 269.

all the witnesses presented in this case."<sup>27</sup> His credentials were impressive; he had personally examined the child plaintiff, and he gave a "detailed explanation" of how he ruled out other possible causes of her birth defects, demonstrating "a careful, methodical reasoning process . . . ." <sup>28</sup> Most of all, "his demeanor as a witness was excellent: he answered all questions fairly and openly in a balanced manner, translating technical terms and findings into common, understandable language, and he gave no hint of bias or prejudice."<sup>29</sup>

On the other side, Judge Shoob disregarded the defense experts because of bad demeanor and apparent bias. For example, although Dr. Paul Stolley had impressive credentials, the court "assign[ed] little weight" to his opinions because his "responses on cross-examination and his overall demeanor and manner indicated a degree of bias," and because of "the difference between his apparent certainty on direct examination and his less-than-certain tone on cross."<sup>30</sup> Similarly, Dr. Robert L. Brent's credentials were "most impressive," but "he was not a convincing or credible witness." The "absolute terms in which he expressed his conclusions" suggested an "unwarranted" degree of confidence; "[h]is criticisms of plaintiffs' attorneys and of expert witnesses who testify for plaintiffs in malformation lawsuits strongly suggest a distinct prejudice . . . ." <sup>31</sup>

In most respects, Judge Shoob's opinion in *Wells* is a first rate specimen of judicial craft. It is clear, detailed and carefully reasoned. In form and manner, it is a model of what common law judges are supposed to do when they decide cases. Its content, however, is another matter. Unfortunately, Judge Shoob's decision is absolutely wrong. There is no scientifically credible evidence that Ortho-Gynol Contraceptive Jelly ever causes birth defects.

The primary question in *Wells* was whether this spermicide is a teratogen, a substance that causes fetal deformities. This question had been studied extensively by the time of the *Wells* trial, and the answer was no secret in the medical community: "The overwhelming body of evidence indicates that spermicides are not teratogenic."<sup>32</sup> Babies born to mothers who used spermicides are no more likely to have birth defects than other babies. In 1983, a panel of the U.S. Food and Drug Administration reviewed the scientific evidence on this issue and concluded that spermicide manufacturers need not warn consumers that their products

27. *Id.* at 272.

28. *Id.* at 273.

29. *Id.*

30. *Id.* at 286.

31. *Id.* at 291.

32. James L. Mills & Duane Alexander, *Teratogens and "Litogens,"* 315 NEW ENG. J. MED. 1234, 1235 (1986).

might cause birth defects.<sup>33</sup> Judge Shoob knew about this finding but discounted it in part because one of the defense experts in *Wells* had acted as a consultant to the Food and Drug Administration panel.<sup>34</sup>

The scientific specialty that concerns the occurrence and causes of disease is epidemiology. The experts who persuaded Judge Shoob included four pharmacists and one teratologist—an expert in birth defects—but no epidemiologist.<sup>35</sup> Their opinions were based on their own inexpert reading of the epidemiological literature, and on their physical examinations of the plaintiff. This means, as Drs. James Mills and Duane Alexander explained, that "[l]egal cases can now be decided on the type of evidence that the scientific community rejected decades ago."<sup>36</sup>

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33. Food and Drug Administration, National Center for Drugs and Biologics, Minutes of the Fertility and Maternal Health Drug Advisory Committee meeting, Bethesda, Md., December 15-16, 1983.

34. *Wells*, 615 F. Supp. at 294.

35. Dr. Paul Stolley, who testified for the defendant, is a distinguished epidemiologist, but his demeanor made a bad impression on the court. *Id.* at 286.

36. Mills & Alexander, *supra* note 32, at 1235. It is, apparently, theoretically possible that Ortho-Gynol did cause Katie Wells birth defects, despite the complete absence of scientific evidence. As Judge Shoob is careful to point out, the defendant's experts conceded that despite the negative epidemiological data, "a small increase [in birth defects] cannot be ruled out" because it would be extremely difficult to detect. *Wells*, 615 F. Supp. at 286. This is undoubtedly true but it hardly justifies the judgment, for three reasons: (1) The fact that the possibility of a risk "cannot be ruled out" is nothing close to proof by a preponderance of the evidence that it exists. (2) Even if Ortho-Gynol does cause a "small increase" in the rate of birth defects, it would still be true, by definition, that the great majority of birth defects in an exposed population would have occurred regardless of the use of this product. A small increment in risk is not very probative of causality. (3) Even if this small and unlikely risk did in fact cause Katie Wells' injuries, the defendant could hardly be faulted for failing to warn its customers of this unknown, unobserved and improbable danger.

Judge Shoob and the Court of Appeals for the Eleventh Circuit were aware of the prevailing scientific opinion on this issue. This did not faze them. There is a strain in American case law of distrust, if not hostility, to scientific authority. Perhaps the worst example of this genre is *Barefoot v. Estelle*, 463 U.S. 880 (1983), in which the Supreme Court held that psychiatric predictions of dangerousness are sufficiently "reliable" to provide useful guidance to juries in capital sentencing hearings, despite the warning of the American Psychiatric Association that a large body of research shows that such predictions are dangerously misleading. See Curran, *Uncertainty in Prognosis of Violent Conduct: The Supreme Court Lays Down the Law*, 310 MED. INTELLIGENCE 1651 (1984); Phoebe C. Ellsworth, *Unpleasant Facts, The Supreme Court's Response to Empirical Research on Capital Punishment*, in CHALLENGING CAPITAL PUNISHMENT: LEGAL AND SOCIAL SCIENCE APPROACHES 177 (Kenneth C. Haas & James A. Inciardi eds., 1988); Murray Levine, *The Adversary Process and Social Science in the Courts: Barefoot v. Estelle*, J. PSYCHIATRY & LAW, 1984, 147 (1984). Perhaps this distrust of science in general is a by-product of the distrust of expert witnesses that is so endemic in American courts.

Errors, even serious ones, can occur in any type of case under any rules of procedure. I certainly do not mean to claim that the error in *Wells* is in itself a judgment against our method of using expert evidence. What makes the *Wells* case unusual and interesting is that its workings are so plainly exposed, in two senses. First, the court's error is patent. As a result, and because the issue is important, the case provoked a substantial response both in medical journals<sup>37</sup> and in the general press, including an editorial in the *New York Times* condemning the decision as wrong, harmful and "an intellectual embarrassment."<sup>38</sup> Second, the route the court took to reach this erroneous conclusion is uncommonly well marked. It is this second form of exposure that makes this case an instructive example for this article.

If *Wells* had been a jury trial, the decision-making process would have been hidden behind an impenetrable general verdict or, at most, several terse special verdicts. Instead, we have a detailed opinion from a judge, presumably a more sophisticated factfinder than a panel of lay jurors. The opinion shows that Judge Shoob evaluated the testimony of the witnesses in the case honestly and carefully, in the manner that is expected of common law judges. How then did he go so wrong?<sup>39</sup>

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37. Mills & Alexander, *supra* note 32.

38. *Federal Judges v. Science*, N. Y. TIMES, Dec. 27, 1986, at A22 (unsigned editorial).

39. A similar question could be asked about the Court of Appeals for the Eleventh Circuit, which affirmed Judge Shoob's decision (although in this article I am not concerned with appellate evaluation of expert evidence). The court of appeals based its opinion in large part on the rule that the district court's factual findings must be upheld unless they are "clearly erroneous." *Wells*, 788 F.2d at 743. See Fed. R. Civ. P. 52(a); *Anderson v. City of Bessemer City*, 470 U.S. 564 (1985). It is easy to understand why the circuit court judges did not want to reconsider Judge Shoob's extensive findings on the credibility, demeanor, motives and biases of the expert witnesses. *Wells*, 788 F.2d at 745 n.8. Nonetheless, they reached the wrong decision. First, Judge Shoob's opinion is "clearly erroneous" in the traditional sense. This is not a case in which "there are two permissible views of the evidence," *Anderson*, 470 U.S. at 574; there simply is no credible scientific evidence that Ortho-Gynol is a teratogen, and there is certainly no credible evidence of a danger that was or ought to have been known to the defendant in the early 1980s. Second, two of the determinative issues in dispute are not unique facts about Katie Wells's case but questions of general application, issues of "legislative fact": the nature of the product, and the scientific evidence of danger at the time it was used. It is doubtful at best whether the "clearly erroneous" standard even applies to trial court determinations of legislative facts, since that is an area in which appellate courts have traditionally exercised broad fact-finding authority. See *Lockhart v. McCree*, 476 U.S. 162, 168 n.3 (1986).

### III. THE STRUCTURE OF ADVERSARIAL EXPERT EVIDENCE

To understand how we use expert evidence it is helpful to compare expert testimony to the type of evidence for which the common law method of developing evidence is most appropriate—for example, the testimony of an eyewitness to an automobile accident. Others have argued forcefully that our system of adversarial fact finding is flawed even with respect to lay evidence;<sup>40</sup> I will not address that question. Rather, I will assume that ours is a reasonable method for determining facts on the basis of lay evidence, and then show how poorly this system works for expert evidence. In essence, I claim that expert evidence is inherently different from other types of evidence, and that it makes no sense to try to force it into a mold that was built for other purposes. Certainly the way we now achieve this transformation produces extremely peculiar results. I will develop this argument by considering each of four stages that evidence passes through: the witness must be located and induced to testify; the witness must be prepared for testifying; the testimony must be presented; and the testimony must be evaluated.

At the outset, a brief preview is in order. Imagine how adversarial fact finding would function under the following regime: the lawyers on each side of a dispute, acting in secret, choose people from an almost indefinitely large array and designate them as the witnesses; these witnesses are paid handsomely for their testimony; lawyers can preemptively hire witnesses in order to keep them from testifying when their honest testimony might help the other side; many witnesses make a business of testifying, and advertising their services; the attorneys control the information and the issues on which their witnesses testify; witnesses are allowed to testify to matters beyond their personal knowledge and to evaluate, as well as, to present information; the existing rules of pre-trial discovery are curtailed so that the identity and the evidence of many potential witnesses can be concealed from the opposing party; the usual rules of evidence are inapplicable at trial; and, finally, the subject matter of the testimony by these witnesses is intrinsically confusing, if not incomprehensible, to judges and jurors.

Odd as it may seem, this is an accurate thumbnail sketch of the present mode of using expert information in American courts.

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40. See, e.g., Marvin E. Frankel, *The Search for Truth: An Umpireal View*, 123 U. PA. L. REV. 1031 (1975); John H. Langbein, *The German Advantage in Civil Procedure*, 52 U. CHI. L. REV. 823 (1985).

### A. Obtaining Witnesses

The central feature of adversarial fact finding is that the parties are entirely responsible for the factual investigation of a case. This procedure has the advantage of assigning the responsibility for an investigation to those with the greatest incentive to conduct it thoroughly. Each side in a common personal injury lawsuit will be anxious to locate any eyewitness who supports its theory of liability, and each side will also want to know what witnesses are likely to be presented in opposition so that it can evaluate its prospects at trial. It is sometimes said that this system maximizes the evidence that is available to the fact finder, since the adversaries, between them, will be motivated to try to locate and present all relevant evidence.<sup>41</sup> A more limited and precise claim is that (at least in civil disputes) the system permits the parties to *define* the scope of relevant evidence: the parties are presumed to be able to look after their own interests, and the court is presumed to have no independent interest in reviewing evidence that the parties do not present.

This arrangement has serious drawbacks. It is inefficient because it produces duplicate investigations; it depends entirely on the competence of the parties' attorneys; it may be strained when the parties have unequal resources; and in some contexts--collusive law suits that affect the interests of outside parties, for example--it breaks down entirely. Perhaps the most important goals served by this method are, essentially, political: by privatizing the investigation of civil cases it limits public involvement in private disputes, and limits the power of the judiciary in all cases.<sup>42</sup> This leaves the attorneys with an extraordinary amount of power. It is they who investigate the facts, and who compel witnesses to appear in court (or at depositions) to testify under oath.

For ordinary lay witnesses, however, the power of attorneys is limited both by the facts of the case and by the structure of litigation. The only possible eyewitnesses in a car accident case are those who happened to see the crash; both sides are forced to seek their evidence from this closed, and often well known, set of people. In addition, the power to compel testimony from this limited group is symmetrical: each side knows that the other can present the witnesses it chooses to ignore. Finally, although a party can use the court's subpoena power to compel an eyewitness to testify, it may not offer the witness any fee or other

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41. E.g., STEPHAN LANDSMAN, *THE ADVERSARY SYSTEM: A DESCRIPTION AND DEFENSE* 45 (1984). See generally Samuel R. Gross, *The American Advantage: The Value of Inefficient Litigation*, 85 MICH. L. REV. 734, 742-43 (1987).

42. Gross, *supra* note 41, at 744-45.

inducement to do so beyond the minimal fee provided by court rules.<sup>43</sup> In short, the paradigmatic eyewitness is a stranger to the dispute who happened to be present when an accident happened, whose testimony is equally available to both sides, and who must give that testimony as a civic duty for a nominal fee and no more.

Some lay witnesses do not fit this description. Some are parties to the litigation, and others have less extreme reasons to favor one side over the other. Biased witnesses, of course, can still be compelled to testify, but they might not cooperate evenly with all parties and they might shade their testimony to suit their biases. One of the major claims for our system is that biases of this sort, at least the strong ones, can be brought out on cross-examination and effectively evaluated by the trier of fact. Also, in some cases a party may have some power to determine the character of its lay witnesses by choosing from among many potential witnesses who could all testify to the same facts. If, for example, several dozen people witnessed a car crash and said that the defendant went through a red light, the plaintiff could decide which ones to use on the basis of their likely demeanor and impact. But this limited room for maneuvering is insignificant compared to the latitude the same plaintiff will have in her choice of medical experts to testify to the nature of her injuries. For that task, the usual limitations on the power of a litigant to choose witnesses simply do not apply.

An expert witness need not have any previous contact with a case. In most cases, any minimally qualified practitioner of the expert discipline at issue is eligible to testify;<sup>44</sup> the expert's entire knowledge of the case may be obtained after she has been enlisted as a witness.<sup>45</sup> This is the

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43. See, e.g., MODEL RULES OF PROFESSIONAL CONDUCT Rule 3.4(b) and cmt. (1987); STANDARDS RELATING TO THE ADMINISTRATION OF CRIMINAL JUSTICE, The Prosecution Function, Standard 3.2(a) (1980); STANDARDS RELATING TO THE ADMINISTRATION OF CRIMINAL JUSTICE, The Defense Function, Standard 4.3(a) (1980); see generally 8 WIGMORE, § 2203, at 143 (3d ed.); 81 AM. JUR. 2d Witnesses § 27, at 51. It is a felony to offer or demand any consideration for lay testimony, beyond statutory witness fees and expenses. 18 U.S.C. § 201(c) (1988).

44. See *infra* note 139 and accompanying text.

45. Some experts do not fit this description. The doctor who treated an accident victim in an emergency room (or the mechanic who checked her car a week earlier) is an "occurrence expert"—one "whose information was not acquired in preparation for trial but rather because he was an actor or viewer with respect to transactions that are part of the subject matter of the lawsuit." FED. R. CIV. P. 26(b)(4), advisory committee's note on 1970 amendment, 48 F.R.D. 487, 503 (1970). Such experts are, in most respects, more similar to lay witnesses than to expert witnesses: the parties have little or no control over their identity, and some of the special rules that govern expert evidence do not apply to them. See Michael H. Graham, *Discovery of Experts Under Rule 26(b)(4) of the Federal Rules of Civil Procedure: Part One, An Analytical Study*, 1976 U. ILL. L.F. 895, 941.

Throughout this article (except in quotations or where the text refers to a specific person), I will arbitrarily refer to attorneys and defendants as male, and to plaintiffs,



single biggest difference between expert and lay testimony. In most common contexts it gives the parties unparalleled power to select their witnesses from a large pool, and to do so on the basis of the content and the manner of their testimony.

In addition to the power to select, the process of obtaining expert witnesses has two other distinctive features. First, expert opinion witnesses cannot, as a practical matter, be compelled to testify. The old English common law rule on this point was absolute; an expert, unlike an ordinary witness, was immune to compulsory process.<sup>46</sup> Some American jurisdictions retain this rule, but most have modified it, at least in theory.<sup>47</sup> In practice, however, the formal rules on this issue make little difference; expert opinion testimony is hardly ever compelled.<sup>48</sup> Since

experts, and judges as female.

46. The leading case on this issue is *Webb v. Page*, 1 Carr. & K. 23, 23-24 (1843), in which Mr. Justice Maule held that, "[t]here is a distinction between the case of a man who sees a fact and is called to prove it in court, and a man who is selected by a party to give his opinion on a matter on which he is peculiarly conversant from the nature of his employment in life. The former is bound, as a matter of public duty, to speak. . . . The latter is under no such obligation; there is no . . . necessity for his evidence, and the party who selects him must pay him."

47. See Horace L. Bomar, Jr., *The Compensation of Expert Witnesses*, 2 LAW & CONTEMP. PROBS. 510 (1935); Marjorie P. Lindblom, Note, *Compelling Experts to Testify: A Proposal*, 44 U. CHI. L. REV. 851 (1977).

48. Although there is a substantial body of case law on the power of courts to compel expert testimony, it is, on the whole, orthogonal to the issue here. Most of the cases in the area deal with attempts to compel testimony from experts who "were already involved in the litigation, either as observers of the underlying events or as expert witnesses employed by one of the parties." Lindblom, *supra* note 47, at 851. One group of these cases concerns "occurrence experts," *supra* note 45, experts whose position in most ways resembles that of lay witnesses. Most of the remainder of this body of law deals with a party's right to compel testimony from experts hired by the opposition, usually in order to obtain pre-trial discovery of the opponent's case. As amended in 1970, Rule 26(b)(4) of the Federal Rules of Civil Procedure provides for discovery of the prospective testimony of experts who are to be called as witnesses, by interrogatories and depositions, see *infra* notes 81-91 and accompanying text. By implication, Rule 26(b)(4) also makes it possible to compel trial evidence from the opposition's designated testifying experts, since, if they cannot be subpoenaed, their depositions can be used in evidence under Rule 32(a)(3)(C) of the Federal Rules of Civil Procedure, which governs the use of depositions at trial, and Rule 804(b)(1) of the Federal Rules of Evidence, which provides a hearsay exception for former testimony at a deposition. The power provided by these rules, however, is not so much to compel testimony from a witness as to exact concessions from an opponent. See Lindblom, *supra* note 47, at 864.

Several reported cases after 1970 involve attempts to compel testimony from experts who were not already involved in the case. *Buchanan v. American Motors Corp.*, 697 F.2d 151 (6th Cir. 1983); *Kaufman v. Edelstein*, 539 F.2d 811 (2d Cir. 1976); *Karp v. Coolley*, 493 F.2d 408 (5th Cir. 1974); *Carter-Wallace, Inc. v. Otte*, 474 F.2d 529 (2d Cir. 1972); *Wright v. Jeep Corp.*, 547 F. Supp. 871 (E.D. Mich. 1982); *Commonwealth v. Vitello*, 327 N.E.2d 819 (Mass. 1975); *In re Estate of Rothko*, 362 N.Y.S.2d 673 (Sup. Ct. 1974). Most of these attempts were unsuccessful (*Buchanan*, *Karp*, *Vitello*,

opinion testimony is almost infinitely malleable, an unfriendly expert can usually hurt a litigant (even without misrepresenting her views) and may well want to do so; she will almost certainly be unwilling to cooperate in preparing the type of presentation that is most effective. More important, there is rarely a need to run the risk of calling an unwilling expert—substitutes are almost always available,<sup>49</sup> and if the work of a particular person is of special significance, other experts can generally rely on it as a basis for their own opinions and testimony.<sup>50</sup>

Second, expert witnesses are paid witnesses. It is illegal, in general, to bargain for testimony. Ordinary witnesses may not be paid anything beyond nominal statutory witness fees and expenses. All common law jurisdictions, however, have retained the old English rule that experts may contract for special fees for their testimony.<sup>51</sup> Hence, the old joke that expert testimony is "a safe legal way to buy a verdict."<sup>52</sup>

This process of selecting expert witnesses has several major consequences, most of them bad. The most important is that expert

*Rothko*), and, of those that did succeed most occurred in unusual and marginal situations: in *Carter-Wallace* a party was allowed to use the recorded testimony of experts in a previous related case where those experts were beyond the subpoena power of the court; in *Wright* a defendant was permitted to depose the author of an adverse study in a case in which that expert was not expected to testify but other experts were expected to rely on his work. See generally Virginia G. Maurer, *Compelling the Expert Witness: Fairness and Utility Under the Federal Rules of Civil Procedure*, 19 GA. L. REV. 71 (1984).

49. This is not true for "occurrence" experts. See *supra* note 45.

50. See, e.g., FED. R. EVID. 705.

51. See Bomar, *supra* note 47, at 519-20; 8 WIGMORE, *supra* note 4, § 2203, at 137-43 (McNaughton rev. 1961). In some states such a contract may only be enforceable to the extent that it provides compensation for services in addition to testifying, Bomar, *supra*; Lindblom, *supra* note 47, at 854-59, but that is a minor restriction since most of an expert's work is inevitably preparation rather than testimony itself. In any event, the significant point is not that such contracts are enforceable, but that there is no prohibition against making the payments. For example, 18 U.S.C. § 201(c)(2) (1988) makes it a crime to offer or accept "anything of value . . . for or because of testimony under oath given or to be given . . . as a witness upon a trial . . . ." Subsection 201(d) provides, however, that section 201(c) "shall not be construed to prohibit the payment of witness fees provided by law . . . or in the case of expert witnesses, a reasonable fee for time spent in the preparation of such opinion, and in appearing and testifying." 18 U.S.C. 201(d) (1988) (Emphasis added). See also STANDARDS RELATING TO THE ADMINISTRATION OF CRIMINAL JUSTICE The Prosecution Function, Standard 3.2(a) (1980) ("It is unprofessional conduct to compensate a witness, other than an expert, for giving testimony . . .") (emphasis added); STANDARDS RELATING TO THE ADMINISTRATION OF CRIMINAL JUSTICE, The Defense Function, Standard 4.3(a) (1980) (same); MODEL RULES OF PROFESSIONAL CONDUCT Rule 3.4(b) cmt. ("[I]t is not improper to pay a witness's expenses or to compensate an expert witness . . . . The common law rule in most jurisdictions is that it is improper to pay an occurrence witness any fee for testifying . . .") (emphasis added).

52. Thomas W. Shelton, *Greater Efficacy of the Trial of Civil Cases*, 32 LAW NOTES 45 (1928).

witnesses are too readily available. If eyewitness testimony is inconsistent with a party's theory of liability for a car crash, the issue may have to be conceded. As the Supreme Court has observed, this is rarely necessary for expert issues:

Experience has shown that opposite opinions of persons professing to be experts may be obtained to any amount; and it often occurs that not only many days, but even weeks, are consumed in cross-examinations, to test the skill or knowledge of such witnesses and the correctness of their opinions, wasting the time and wearying the patience of both court and jury, and perplexing, instead of elucidating, the questions involved in the issue.<sup>53</sup>

The confusion that the Court complains of is not restricted to expert testimony. It is a common vice of fact finding, and often it is unavoidable. The problem is that this method of obtaining witnesses creates unnecessary, excessive confusion. An attorney is supposed to fight for his side by any legitimate means, and the power to hire whatever experts he chooses provides an extraordinary opportunity to recruit allies to that cause. *Some* expert can almost always be found to testify to any plausible (and many implausible) expert opinions; if nothing else, a friendly expert can serve to undermine any expert who testifies for the opposition. As a result, the legal battle between the parties tends to generate courtroom battles between experts. Disputes in fields of expert knowledge are overemphasized at the expense of areas of general agreement, and it is difficult, or impossible, for the trier of fact to learn the consensus in a field. The *Wells* case, for example, generated a battle of experts in court where none existed in the field.

Occasionally, however, expert witnesses are artificially *unavailable*. Some experts, of course, are simply unwilling to testify in court, but the unavailability of experts is not always fortuitous. A litigant, obviously, may not go around preemptively retaining the eyewitnesses to an accident to prevent them from cooperating with the opposition; that is obstruction of justice, a criminal offense. But litigants can and do preempt experts in a field by retaining them, even when they have no intention of using their testimony—a practice that is sometimes called "parking" experts. In extreme cases, one side may be able to corner all or nearly all of the useful experts on an issue. More commonly, a party will succeed in

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53. *Winans v. New York & Erie R.R.*, 62 U.S. (21 How.) 88, 101 (1858).

denying its opponent access to the best available experts.<sup>54</sup> The old "conspiracy of silence" in medical malpractice cases was a variant of this problem. In jurisdictions in which a malpractice plaintiff was required to present expert testimony from a local physician, malpractice defendants did not need to *retain* all available experts. All eligible doctors identified with the defense on their own, and were unwilling to work with plaintiffs—and, of course, they could not be compelled to do so.<sup>55</sup>

Because experts are paid to testify, and because they can be hired repeatedly to work on cases with similar or identical issues, they can become professional witnesses. Many do just that—they advertise their services (a practice that is unimaginable for lay witnesses), and earn substantial sums from this line of work. Every recent issue of the *National Law Journal*, for example, includes over a full page of small and medium-sized ads in columns titled "TESTIMONY," with headings ranging alphabetically from "ADDICTIONOLOGIST" ("Physician certified in medicine's new specialty"), to "NEUROLOGY" ("Expert in general neurology, behavioral disorders, Alzheimer's disease"), to "WARNING LABELS" ("An Analysis of the Readability and Communication Effectiveness on Any Product").<sup>56</sup> Similarly, the classified advertisements of a typical issue of *Trial* magazine consist of over four pages of ads for expert testimony (including listings such as, "A record \$2,250,000 security negligence settlement after testimony . . .")—and a single listing under the heading "Position Available"—while the body

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54. Lawyers do not generally admit to this practice, but it is no secret. For example, an acquaintance of mine in San Francisco—an accomplished test-case litigator—once told me how, at the planning stages of a case, he organized a conference of the most prominent national experts in a field primarily in order to keep any of them from working for the opposition. Occasionally lawyers will tell how opposing counsel have tried to do this sort of thing. Thus, for example, Gerald M. Stern, the lead attorney for the plaintiffs in the Buffalo Creek disaster class action, has described how the defense attorneys retained two experts—a climatologist and an engineer—for the purpose of suppressing their testimony. GERALD M. STERN, *THE BUFFALO CREEK DISASTER* 253-56 (1976). Once in a while, a lawyer will even admit publicly to doing this sort of thing: "I have, on occasion, retained an expert in design professional cases simply to keep him from testifying for the other side." Robert P. Karr, *Open Forum, An Analysis and Demonstration of the Use of Experts in Professional Liability Litigation*, 50 *INS. COUNS. J.* 67, 68 (1983) (transcribed oral comments of symposium participant).

55. See David E. Seidelson, *Medical Malpractice and the Reluctant Expert*, 16 *CATH. U. L. REV.* 158, 159-62 (1966). There is evidence of a similar but milder problem in a very different area of law. A recent study of school desegregation litigation found that the defendants had a hard time obtaining useful expert evidence because many scholars were unwilling to testify for their side in these cases. MARK A. CHESLER, ET AL., *SOCIAL SCIENCE IN COURT, MOBILIZING EXPERTS IN THE SCHOOL DESEGREGATION CASES 72-74* (1988).

56. *NAT'L. L.J.*, Mar. 6, 1989, at 63-65. See also *Expert Witnesses: Booming Business for Specialists*, *N.Y. TIMES*, Jul. 5, 1987, at 1.

of the magazine includes dozens of larger advertisements for expert witnesses.<sup>57</sup>

Recently, a new layer has been added to this process: referral services that put attorneys in touch with expert witnesses, for a fee, and publish their own advertisements touting the effectiveness of their experts. For example, "[T]he Medical Quality Foundation promises that its '1,150 board certified, eminently qualified' medical experts 'can effectively double the monetary value of your case.'"<sup>58</sup> Some of these outfits have obviously become quite sophisticated at serving their lawyer clients. For example, one mentions that a specialist will "contact attorney with oral opinion," and only "if requested . . . prepare and sign a written report and be available for testimony,"<sup>59</sup> neatly tailoring their work to the manipulative opportunities of the rules regulating pre-trial discovery of expert evidence.<sup>60</sup> Another company offers not only "financial assistance" and "reasonable fee options from \$150," but also "free books, including one with a foreword by Melvin Belli."<sup>61</sup> My personal favorite is an advertisement for "MEDI-LEGAL SERVICES" that features the caption "Heavy Weight Medical Malpractice Experts Available" above a photograph of a silver-haired gentleman in a white lab coat, wearing boxing gloves, facing the camera with his arms raised in a pugilistic stance.<sup>62</sup>

There is nothing wrong, of course, with professionalism in fact finding or in any other undertaking. It is simply a form of expertise that makes the professional more effective and efficient at the tasks she is hired to perform. The problem is professional partisanship. Experts whose incomes depend on testimony must learn to satisfy the consumers who buy that testimony; those who do not will not get hired. In some cases experts may distort their views to suit the interests of their clients, perhaps even lie outright, but that is probably not the major problem. Litigants are not likely to choose experts who must lie—they would rather use experts who give helpful testimony *and* believe it, and such people can usually be found. In any event, less extreme adjustments can be all too effective: choosing what to emphasize, what to underplay, and what to omit. The fact that experts are often repeat performers makes partisan selection much easier, since their inclinations become known. It is common, for example, in many jurisdictions, for some physicians to be

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57. *E.g.*, TRIAL, Dec. 1985, at 103-07.

58. Gary Hanauer, *Choosing a Medical Expert*, CAL. LAW., May 1985, at 53.

59. NAT'L. L. J., *supra* note 56.

60. *See infra* notes 81-91 and accompanying text.

61. *Id.*

62. JURY VERDICTS WEEKLY, Oct. 1985, at inside rear cover.

identified as "plaintiffs' doctors" and others as "defendants' doctors."<sup>63</sup> Once these labels are attached, these doctors are retained repeatedly by the sides with which they are identified, a process which solidifies their biases.

Some manipulations are possible, of course, with lay testimony, but there are three distinctions. First (as we will see), the scope of permissible testimony, and hence the room for manipulation, is far greater for expert than for lay testimony. Second (to return to our car crash case), it is possible, even likely, that none of the eyewitnesses will be interested in shading her testimony to help one side or the other. When expert testimony is at stake, on the other hand, each party will almost always be able to hire some expert who is willing to do this, if necessary. Third, expert witnesses can become expert courtroom performers; they can learn by repeated practice to present their testimony to achieve maximum effect. Attorneys, for their part, can select expert witnesses by the same criteria—they can (and do) shop around for those experts with the best testimonial manner and the most appealing credentials, and they avoid those experts (however knowledgeable) who look bad, speak poorly, or have insufficiently impressive diplomas.<sup>64</sup> As one attorney explains:

Usually, I like my expert to be around 50 years old, have some gray in his hair, wear a tweedy jacket and smoke a pipe . . . . You must recognize that jurors have prejudices and you must try to anticipate these prejudices . . . . Some people may be geniuses, but because they lack training in speech and theater, they have great difficulty conveying their message to a jury.<sup>65</sup>

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63. Lee M. Friedman, *Expert Testimony, Its Abuse and Reformation*, 19 YALE L.J. 247, 253 (1910); Larry W. Myers, "The Battle of the Experts: A New Approach To An Old Problem In Medical Testimony," 44 NEB. L. REV. 539, 552-54 (1965).

64. A 1967 survey of judges, lawyers and doctors in the Los Angeles area found that "[o]ver three-quarters of the attorneys responding . . . indicated that some factor other than medical expertise—usually an impressive 'courtroom manner'—often determines the choice of an expert witness." Note, *supra* note 8, at 728-29.

65. Hyman Hillenbrand, *The Effective Use of Expert Witnesses*, BRIEF, Fall 1987, at 48, 49. This type of candid description is not exceptional; it is a staple of "how to" articles by experienced litigators: "[T]he selection process involves more than securing an expert who will render a favorable opinion. The credibility and persuasiveness of an expert are equally important concerns." Thomas V. Harris, *A Practitioner's Guide To The Management And Use of Expert Witnesses in Washington Civil Litigation*, 3 U. PUGET SOUND L. REV. 159, 161 (1979). "The best expert is one . . . who has . . . qualities that give a certain 'glow' to an otherwise acceptable position. In fact, the best expert testimony in the world may be utterly useless unless it is presented by someone whose other attributes can add a ring of truth to it." Albert Momjian, *Preserving Your Witness's Stellar Testimony*, FAM. ADVOC., Summer 1983, at 8. "[A]n imposing list of publications will carry great weight." E. Eugene Miller & Charles M. Kolb, *The Penologist as Expert Witness*, LITIG., Summer 1982, at 30, 31. "He must exude confidence, create empathy,

Again, the general features of this problem are not restricted to expert testimony, but here they are played out in a unique context. Manner and background always play a role in the evaluation of oral testimony, and they may mislead. The foul-mouthed biker with three drug convictions may provide a more accurate account of a car accident than the reserved Presbyterian minister; the calm confident witness may be less trustworthy than the one who fidgets and mumbles. I am willing to assume, however, that these facts add some useful information to the fact finding process—that judges and juries, on the whole, are able to judge lay testimony more accurately with this sort of information than without it. Even for expert testimony, it is possible that the qualities lawyers seek in expert witnesses—verbal fluency, ease of manner, the appearance of humility, stellar credentials, etc.—are all related to truth, *in the abstract*. If expert witnesses were selected by chance or by some other unbiased procedure, we might be right to give weight to these factors. In practice, however, the correlation between these attributes and truth is eliminated by the process of selecting expert witnesses. To put the problem in the strongest possible terms, the value of these qualities as signals of truth is destroyed when they become commodities that are bought and sold in the market for effective testimony. The confident expert witness is less likely to have been chosen because she is right, than to have been chosen because she is confident whether or not she is right. The fact that a biologist from Harvard testifies that vitamin C is a cure for cancer does not mean that most biologists from Harvard believe that; it means that the lawyer who called her was able to find a biologist who both works at Harvard and agrees with that proposition.

Cases like *Wells* may be explained in part by this selection process. If a party seeks and presents the best experts in a field, it will be stuck with whatever limitations of manner and background those people possess. Such people are not likely to be deeply interested in the techniques of effective presentation; indeed, they may be offended by the whole process. They may be unattractive or ineffective testifiers, and they will certainly be at a severe disadvantage competing with opposing witnesses who devote much of their time and attention to perfecting their courtroom demeanor. The litigant may have consulted with them in the past; this is praiseworthy for a responsible person or company, but it will be interpreted as creating a bias for the expert. On the other hand, a party that ignores the actual quality of its expert witnesses can easily find

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and seem and be completely sincere and convincing." Stephen E. Nagin, *Economic Experts in Antitrust Cases*, LITIG., Winter 1982, at 36, 37. "Battlefield experience is enormously helpful. An expert who has been cross-examined before may sense traps and be better able to avoid them . . . ." Miller & Kolb, *supra*, at 32. "Look for an expert with some 'fighter' spirit . . . ." Jonathan R. Crane, *What Difference Does An Expert Make?*, MICH. B. J., Dec. 1981, at 966, 967.

plausible, articulate experts with excellent demeanor and no embarrassing connections. In *Wells*, these factors may have put the defense at a disadvantage, since it was forced to rely in large part on the experts it had used to develop and test its product, while the plaintiffs could construct their case from whole cloth.

One of the most unfortunate consequences of our system of obtaining expert witnesses is that it breeds contempt all around. The contempt of lawyers and judges for experts is famous. They regularly describe expert witnesses as prostitutes, people who live by selling services that should not be for sale. They speak of maintaining "stables" of experts, beasts to be chosen and harnessed at the will of their masters.<sup>66</sup> No other category of witnesses, not even parties, is subject to such vilification. This attitude is not compatible with the serious attention to evidence these presumably untrustworthy witnesses provide. On the other side, some of the best experts in many fields have a contempt for legal proceedings that goes beyond the low regard for law and lawyers that is common in our society. They believe, correctly, that experts who agree to testify are subject to strong pressures to become partisans of the side that calls them. They also feel (again correctly) that not only is the process of providing evidence difficult and time consuming, but that they are treated in a demeaning manner, and that their evidence is poorly used. As a result, these experts refuse to be witnesses, leaving the field to those with fewer

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66. Thus for example, Saks and Van Duizend found that the lawyers they interviewed frequently described expert witnesses as "prostitutes" or "whores," and that these terms were often used by the very lawyers who hired and used the experts. SAKS & VAN DUIZEND, *supra* note 16, at 73.

A *Yale Law Journal* article published eighty years ago includes the observation that "an expert is . . . a kind of intellectual prostitute ready to sell his opinion and enlist in the service of the side that pays him." Lee M. Friedman, *Expert Testimony, Its Abuse and Reformation*, 19 *YALE L.J.* 247, 247 (1910). The author attributes this sentiment to juries, but the article in which this statement appears was written by a lawyer. If jurors do feel this way it is a reflection of what judges and lawyers say and do. An earlier article by Judge William Foster is closer to the mark. He quotes a closing argument in which an attorney said "there are three kinds of liars,—the common liar, the d - d liar, and the scientific expert," and adds that this characterization is similar to those regularly bestowed "by eminent members of the legal profession, both lawyers and judges . . . ." William L. Foster, *Expert Testimony—Prevalent Complaints and Proposed Remedies*, 11 *HARV. L. REV.* 169 (1897). Eighty-four years later I heard an expert witness insulted to his face, in court, with the same dreary phrase.



scruples or fewer options.<sup>67</sup> Thus, to some extent, the common legal contempt for expert witnesses is a self-fulfilling prophecy.

### *B. Preparing Witnesses*

The typical witness in an adversarial trial is prepared for testimony by the lawyer who intends to call her. In our car crash case, for example, the lawyer who intends to present an eyewitness will, if possible, meet with the witness in advance, discuss the witness's testimony, explain the process of examination, go over lists of questions and answers, anticipate lines of likely cross-examination, identify or prepare any helpful exhibits, and (if the witness is willing) offer advice on the form, if not the content, of the testimony. A neutral process of pre-trial review might improve the accuracy or the completeness of a witness's recollection, but this form of witness preparation is far from neutral. On the contrary, it seems designed to bias the witness, consciously or unconsciously, and to produce partisan testimony—this process is, in fact, one of the conspicuous drawbacks of our system of litigation.<sup>68</sup> Within that system, however, the problem is inevitable. Partisan preparation is inherent in our method of adversarial fact finding.

The lawyer in our adversarial system is the purveyor of evidence. It is his responsibility to present the evidence, and only the evidence, that favors his side, and to do so with intelligence and (yes) cunning. This requires the lawyer to determine in detail what each potential witness may say, and to organize that evidence to best advantage—a task of locating

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67. See, e.g., Gerber, *supra* note 6; NEW YORK BAR, note 8. One sign of this self-selection process is the fact that experts who write about forensic issues frequently exhort their colleagues to "overcome their traditional reluctance to provide testimony . . ." Mills & Alexander, *supra* note 32, at 1235. See also Harry E. Mock, Medical Testimony, AM. J. MED. JURIS., Oct. 1938, at 119, 120. ("If the honest, ethical physician continues [to refuse to testify] . . . it only means greater opportunity for the professional expert witness. Honest medical opinions and testimony . . . is a duty we owe our profession."). Reluctance or unwillingness to testify is not restricted to doctors and other experts in other areas that are frequently used, but extends to disciplines whose contact with legal proceedings is sporadic and marginal. Thus, for example, one philosopher describes how "a large number of philosophers of science" refused to testify in a landmark "creation science" case "simply because they did not want to appear in court." Michael Ruse, *Commentary: The Academic As Expert Witness*, SCI. TECH. & HUM. VALUES, Spring 1986, at 68, 69.

68. It is not surprising that partisan preparation of witnesses is a target of critics of the adversarial system, e.g., JEROME FRANK, COURTS ON TRIAL: MYTH AND REALITY IN AMERICAN JUSTICE 86 (1949); John H. Langbein, *The German Advantage in Civil Procedure*, 52 U. CHI. L. REV. 823, 833 (1985), but equally strong criticisms also come from strong advocates of adversarial fact finding, e.g., Stephen Landsman, *Reforming Adversary Procedure: A Proposal Concerning the Psychology of Memory and the Testimony of Disinterested Witnesses*, 45 U. PITT. L. REV. 547 (1984).

and learning and shaping the evidence that inevitably entails preparing the witnesses' testimony. We can hardly assign this role to lawyers and then cripple their ability to execute it; if we try, the restrictions will be circumvented or ignored.

Worse, our system of presenting evidence at trial presupposes advance preparation. A common law trial is almost always a single continuous event. Each witness gives evidence once, orally, in the physical presence of the trier of fact, and is subject to immediate cross-examination. This sort of testimony is a performance that has some aspects of the theater, although the resemblance can be misleading. One similarity, however, is telling: like any other live performance, such testimony should be carefully prepared, perhaps even rehearsed. If it is not, problems are likely: events will be forgotten, documents will be left at home, the witness will panic, the presentation will ramble and become incoherent, inadmissible evidence will be inadvertently presented, etc. In the absence of an investigating judge, the only participants who can possibly prepare and direct this performance are the lawyers, and we rely on them to do that. Our rules of procedure provide no other method of managing trials, and our rules of evidence assume (except in the case of a hostile witness) that a lawyer will be able to anticipate the answer to each question he asks on direct examination.<sup>69</sup> In general that means preparing the witness directly.

Inevitable does not mean immutable. The fact of partisan preparation of testimony may be inherent in adversarial fact finding; its form is not. Attorneys now have essentially unlimited license to do almost anything in the process of preparing testimony short of buying witnesses or suborning perjury. That could perhaps be changed. For example, Stephan Landsman has proposed that *ex parte* preparation of disinterested witnesses be prohibited—that attorneys be required, in effect, to prepare their witnesses in the presence of their enemies.<sup>70</sup> (Interestingly, Landsman exempts expert witnesses from this proposal on the ground that they, like litigants and employees of litigants, "clearly fall outside the disinterested classification."<sup>71</sup>) At this point, however, I am not interested in considering changes but in describing the system as it is, and currently the system contains several features that limit the damage caused by adversarial preparations to a greater or lesser extent, depending on the identity of the witness and the nature of the testimony. When the witness is an expert, however, the value of these protections is vanishingly small.

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69. See, e.g., FED. R. EVID. 611(c), 104(a)(2) (direct examiner may not ask leading questions, but must be able to make an offer of proof advising the court of the anticipated answers to his questions).

70. Landsman, *supra* note 68.

71. *Id.* at 583.

Most lay witnesses who are not parties to a case have little incentive to participate in extensive preparation for testimony. They will probably want to know in advance what will happen in court and to be prepared for the questions that will be asked, and they may be happy to assist the attorneys if it is not too much trouble. Most non-party witnesses, however, have little or no interest in the outcome of a case, and relatively little investment even in their own testimony; they believe what they say, of course, and they do not want to be contradicted or impugned, but it is not a central concern in their lives. As a result, the damage that these witnesses can sustain on cross-examination is, from their own point of view, limited. Occasionally a disinterested eyewitness will be impeached as a liar. This is unquestionably very unpleasant for the witness whether or not she has lied, but even an attack of that type (and they are rare) focuses on testimony that is peripheral to the witness's own life. The common argument against an eyewitness is much less challenging—merely that she was mistaken. This may be irritating to the witness, it may make her angry, but it is hardly devastating. Finally, since lay witnesses are not paid, they may not be able to afford to spend a great deal of time preparing for court, and they will certainly have no financial incentive to do so.

An expert witness is in an entirely different position.<sup>72</sup> The most obvious difference is financial. Since the expert is paid she can afford to spend time preparing to testify; indeed, the time spent may be quite remunerative. If the expert values the role of witness, for financial reasons or otherwise, she will have an additional motive to spend time working with the attorney who calls her: careful preparation and close collaboration are likely to increase the satisfaction of that attorney, and to make the expert more desirable as a witness in the future.<sup>73</sup> In addition, there is a special need for careful preparation of expert testimony, since the expert, unlike a lay witness, is called to testify about matters that are beyond the common knowledge of the judge or jury—and often beyond the ken of the lawyer who must examine the witness. It's one thing to get a clear story from a witness who saw two cars collide; it's quite another thing to get intelligible and persuasive testimony from a

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72. I will assume, initially, that the preparation of the expert is not restricted by limited resources, limited time or limited competence of the attorney. See *infra* notes 100-04 and accompanying text for a discussion of expert preparation in the face of such limits.

73. This is not an abstract consideration. Lawyers who are selecting experts are advised to remember that, "[b]esides being knowledgeable, the expert must be willing during the pendency of the case to spend the time necessary to review and analyze materials provided by counsel and to do so in a timely way. The expert should be accessible to counsel both by telephone and in person." Dennis R. Suplee & Margaret S. Woodruff, *The Pretrial Use of Experts*, PRAC. LAW., Sept. 1987, at 9, 13.

doctor who examined the spinal cord injury of one of the drivers, and who has an opinion about the likely prognosis. It can be done, but it's not simple.

Finally, the preparation of an expert witness differs from that of a lay witness because of the nature of the cross-examination and rebuttal that she faces. Experts are subject to much more wide-ranging cross-examination than ordinary witnesses.<sup>74</sup> They can be impeached by all the methods available for impeaching lay witnesses, and by several others as well. They can be questioned about their training, their observations, their opinions, and the bases for those opinions—and about a host of other matters they did not consider, and materials they did not refer to. Expert witnesses are also likely to be directly contradicted by opposing experts,<sup>75</sup> and the opposing experts (unlike lay witnesses) will not be restricted to reporting their own observations and their opinions based on those observations, but may also criticize the opinions of the experts on the other side. The result is that an expert witness runs the risk of extraordinarily sharp attack. In some cases the opposing attorney may ridicule her entire discipline, or deny that any expert in that discipline can give useful evidence on the issue at hand. In all cases an expert witness risks being attacked as not merely wrong, but unqualified, ignorant, incompetent, biased, misleading or silly. Moreover, the attack is not directed to some passing observation but to her profession, her life's work.

To sum up: expert witnesses are given the means to spend time working to prepare their testimony with the attorneys who call them; there is a special need to prepare carefully, since their evidence is generally complex and technical; and they have a powerful motive to do so—the desire to construct defenses against opposing lawyers and opposing experts. The result is that the preparation of expert testimony often involves extensive detailed cooperative work by the expert and the attorneys who hired her, work that is done in anticipation of battle, under threat of attack. This type of preparation, perhaps even more than the processes of choice and payment, pushes the expert to identify with the lawyers on her side and to become a partisan member of the litigation team. The expert is not merely subject to the camaraderie that grows between co-workers on a difficult project, she is dependent on the lawyer for the preparation that will make her success possible, and for protection from a dangerous enemy.

The preparation of expert witnesses differs from that of lay witnesses in scope as well as intensity. The potential scope of the testimony of an eyewitness is as fixed as the identity of the witness; she may testify about

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74. See *infra* notes 179-90 and accompanying text.

75. See *supra* text following note 18.

her perceptions of past events to the extent that they are material to the case, and she may express some opinions that are directly based on those observations.<sup>76</sup> This imposes two limits on the preparation of the witness's testimony that are almost too obvious to mention: the process is entirely retrospective, and it is restricted to information that is within the witness's control. As obvious as they are, however, the importance of these limitations is apparent by contrast, since with expert witnesses neither applies.

An expert witness generally comes on the scene after the events have occurred and the issues have been drawn. That is also true of the ordinary lay investigators, but there is a fundamental difference. The function of investigators is simply to *collect* evidence—to locate and interview witnesses and to find relevant documents and objects. If an investigator testifies, it is to report on evidence that she has *found*. The major function of experts, however, is to *create* new evidence in the form of expert opinions; in the process they may also generate new observations by examining existing evidence or by conducting original studies and experiments. This is a unique feature of expert testimony—there is no other context in which a witness can create new evidence about past events—and it gives the expert witness a set of options that no other witness has. The expert can decide where to look and by what means, what research to conduct, which people to consult, which studies to consider, which methodology to use, and so forth. In addition, the expert may also need to spend a great deal of time instructing the lawyer on the intricacies of her field. As a result, the preparation for expert testimony can be an open-ended undertaking. Preparing the testimony of an eyewitness may be difficult, but it is circumscribed; at best the lawyer can manipulate the witness's existing recollections to a limited extent. When the witness is an anesthesiologist or an economist, however, there may be any number of possible tests to run, studies to conduct or issues to consider—there may be numerous choices that determine the scope and the structure of the testimony.

This open-ended form of preparation affects the content of expert testimony in three ways. First, doing all this work takes time, time in which the biasing effects of partisan preparation can operate. Experienced lawyers are perfectly aware of how this process operates. They counsel beginners: "Do not press the expert to reach a conclusion, even

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76. These limitations are the combined results of two rules of evidence: the rule that lay witnesses can only testify to matters within their personal knowledge, FED. R. EVID. 602; 2 WIGMORE, *supra* note 4, §§ 650-64, at 880-916; CHARLES T. MCCORMICK, HANDBOOK OF THE LAW OF EVIDENCE § 10, at 23-25 (Edward W. Cleary ed., 3d ed. 1984), and the lay opinion rule, FED. R. EVID. 701; 7 WIGMORE, *supra* note 4, §§ 1917-2028; MCCORMICK, § 11, at 26-29. See *infra* text accompanying notes 119-21.

orally, before she is thoroughly conversant with the case and an advocate of the client's cause."<sup>77</sup>

Second, the lawyer who retains an expert may be able to do more than choose his witness. Often, he can choose the issues on which the witness prepares and testifies as well. For example, a corporation facing charges of discrimination in both hiring and promotions might retain a statistician to rebut the hiring claim only—and give her data that is restricted to its hiring practices—because the lawyers are afraid that if that witness examined their promotion records, she would conclude that there is evidence of discrimination. The corporation would then use a different witness (perhaps a less sophisticated expert) on the promotion issue.

Third, the information on which an expert bases her opinion is not entirely her own. Ordinarily, much of it will come from the attorney who hired her—hardly an unbiased source.

Effective communication with experts has several objectives: to provide enough information so that the expert will be well-prepared, but to avoid providing materials that would open the door to otherwise unavailable lines of cross-examination; to give the expert leeway to develop ideas and conclusions with the requisite independence, but to provide sufficient guidance so that helpful opinions are reached; to make the expert a colleague while at the same time preserving objectivity.<sup>78</sup>

In civil cases, the manipulation of non-expert evidence is restricted by the rules governing pre-trial discovery.<sup>79</sup> Under the Federal Rules of Civil Procedure, for example, a party must reveal to its opponent, on

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77. James E. Daniels, *Managing Litigation Experts*, A.B.A. J., Dec. 1984, at 66.

78. *Id.* at 64-66. See also, e.g., Peter I. Ostroff, *Experts, A Few Fundamentals*, LITIG., Winter 1982, at 9 ("Do not disclose facts or documents to the expert unless the opposition has already learned or seen them or you do not mind if the opposition does learn or see them.").

79. Discovery in criminal cases is more limited than in civil cases. Under the Due Process Clause, the prosecutor is required to reveal potentially favorable information to the defense. *United States v. Agurs*, 427 U.S. 97 (1976); *Giglio v. United States*, 405 U.S. 150 (1972); *Brady v. Maryland*, 373 U.S. 83 (1963). Beyond that constitutional minimum, American jurisdictions vary greatly; some provide for extensive pretrial discovery of prosecutorial information by the defense, some for little or none. Some require the defendant to disclose certain information before trial—in particular, his intention to use an alibi defense or an insanity defense—and others do not. No jurisdiction, however, has provisions for pre-trial discovery in criminal cases that are nearly as extensive as the common civil discovery provisions. See generally MCCORMICK, *supra* note 76, § 3, at 6 and § 97, at 238-42 (3d ed. 1984). For a concise description of the range of rules of criminal discovery, as applied to expert information, see Paul C. Giannelli, *Observations on Discovery of Scientific Evidence*, 101 F.R.D. 622 (1983).

request, the "identity and location" of any eyewitnesses known to it, or of any other "persons having knowledge of any discoverable matter," and all such people may then be deposed.<sup>80</sup> This right of discovery makes it difficult for a party to conceal or suppress the evidence of lay witnesses. Expert witnesses, however, are subject to special and less stringent rules.

Until 1970, the Federal Rules governing discovery made no special provision for expert witnesses. Many courts interpreted this omission not as a requirement that they treat expert witnesses as other witnesses are treated, but as a license to exempt experts from discovery entirely—reflecting, perhaps, an inarticulate view that experts are not really "witnesses" at all.<sup>81</sup> In 1970, the Rules were amended to permit limited discovery of expert evidence. A party is required, on demand, "to identify each person whom [it] expects to call as an expert witness at trial, to state the subject matter on which the expert is expected to testify, and to state the substance of the facts and opinions to which the expert is expected to testify and a summary of the grounds for each opinion."<sup>82</sup> An expert who is identified as a witness may then be deposed, with leave of the court.<sup>83</sup>

In other words, a full range of discovery mechanisms is available for experts who are expected to testify, but only for those experts. Information from other experts who have been "retained or specially employed . . . in anticipation of litigation" may only be discovered "upon

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80. FED. R. CIV. P. 26(b)(1).

81. *E.g.*, *United States v. McKay*, 372 F.2d 174, 176-77 (5th Cir. 1967); *American Oil Co. v. Pennsylvania Petroleum Prods. Co.*, 23 F.R.D. 680, 685-86 (D.R.I. 1959). See FED. R. CIV. P. 26(b)(4) advisory committee's note, 48 F.R.D. 487, 503-04 (1970); Jack H. Friedenthal, *Discovery and Use of an Adverse Party's Expert Information*, 14 STAN. L. REV. 455 (1962).

82. FED. R. CIV. P. 26(b)(4)(A)(i).

83. *Id.* Some courts have refused to order depositions of experts under Rule 26(b)(4). See, *e.g.*, *Lanza v. British European Airways, Ltd.*, M.D.L. Docket No. 147 (E.D.N.Y. filed Mar. 17, 1976) (cited in Michael H. Graham, *Discovery of Experts Under Rule 26(b)(4) of the Federal Rules of Civil Procedure: Part One, An Analytical Study*, 1976 U. ILL. L.F. 895, 918). In general, "as a practical matter, although not as a matter of right, the defendant may depose the testifying expert . . ." Michael H. Graham, *Expert Witness Testimony and the Federal Rules of Evidence: Insuring Adequate Assurance of Trustworthiness*, 1986 U. ILL. L.F. 43, 78-79; see also Michael H. Graham, *Discovery of Experts Under Rule 26(b)(4) of the Federal Rules of Civil Procedure: Part Two, An Empirical Study and a Proposal*, 1977 U. ILL. L.F. 169 [hereinafter "Graham, Part Two"]; Dennis E. Vis, Note, *Dennis v. BASF Wyandotte Corporation: "Further Discovery" of Testimonial Experts Under Federal Rule of Civil Procedure 26(b)(4)(A)(ii)*, 33 S.D. L. REV. 331 (1988).

a showing of exceptional circumstances."<sup>84</sup> Thus, information from experts who have been "informally consulted" can almost never be discovered.<sup>85</sup> At least in some circumstances, an attorney is not limited to shopping for a particularly helpful expert, but may also pick and choose among that expert's opinions. One practitioner, for example, writes that "[a]ttorneys should be able to retain one expert to perform several discrete tasks and, depending on the results, designate the expert as a witness as to some tasks and not as to others."<sup>86</sup> A party that takes full advantage of these rules can "informally consult" with a dozen experts (a non-discoverable activity), retain the five experts who seem most promising (a generally non-discoverable activity), and, finally, at the last available date, designate the one of these five whose opinion is most favorable as an expert witness, and restrict that witness's testimony (and the opposition's discovery) to those issues on which she is helpful.

This rule helps parties reap the benefits of their right to choose expert witnesses in the first place. Any errors in their partisan selection can be discovered and suppressed before trial.<sup>87</sup> It may also help them, where feasible, to buy up experts who may be useful to the opposition since it explicitly recognizes a litigant's right to retain non-testifying experts and to keep their identity confidential.<sup>88</sup> Finally, this rule dovetails with the process of preparing expert testimony to enable parties to select the evidence on which expert opinion testimony is based as well as the witnesses who will give it.

Consider a products liability case in which the issue is whether a defect in the defendant's product caused the accident which injured the

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84. FED. R. CIV. P. 26(b)(4)(B); *Ager v. Jane C. Stormont Hosp. and Training Sch. for Nurses*, 622 F.2d 496 (10th Cir. 1980). There is a division among federal courts as to whether a party opponent has an absolute right to discover the names of experts who have been retained but who are not to be used as witnesses. Compare *Ager*, 622 F.2d at 502, with *Baki v. B.F. Diamond Constr. Co.*, 71 F.R.D. 179 (D. Md. 1976). The argument against permitting free discovery of their names is based in large part on the desire not to burden or discourage experts, particularly doctors. *Ager*, 622 F.2d at 502-03. See Note, *Discovery of Retained Nontestifying Experts' Identities Under the Federal Rules of Civil Procedure*, 80 MICH. L. REV. 513 (1982); Michelle Tapken, Note, *Kuster v. Harner: A New Interpretation of Federal Rule of Civil Procedure 26(b)(4)(B)*, 33 S.D. L. REV. 352 (1988).

85. *Ager*, 622 F.2d at 502-03; FED. R. CIV. P. 26(b)(4) advisory committee's note, 48 F.R.D. 487, 504.

86. Bloom, *Protecting Expert Reports*, 8 L.A. LAW. 22, 23 (1985).

87. This may require advanced planning. Therefore, attorneys are advised, "[l]ike a prudent driver, keep a spare. . . . You do not want to start searching for a new expert if your expert goes flat or leaves you in a lurch far down the road to trial. . . . Their views may become incompatible with your trial strategy either because they reach the 'wrong' conclusion or their opinions do not coincide with other witnesses' testimony." Ostroff, *supra* note 78, at 8-9.

88. See *supra* notes 54-55 and accompanying text.



plaintiff. The defendant's lawyer might want to consider using an accident reconstruction expert to testify on this point. Under current rules the attorney can retain an expert, ask her to run the reconstruction tests, and then wait until the results are in before he decides what to do next. If the results are good, the attorney will produce the expert. If they are bad, he will not call the expert; the fact that these tests were run will be suppressed, and the defense will rely on other evidence. If a particular expert witness is important to a party's case, asking her to conduct such tests can pose a problem since, "[i]f the results of the work do not support the proponent's position, it will be necessary to refrain from calling that witness."<sup>89</sup> The problem, however, is not insoluble:

[S]uppose defendant's counsel had engaged a consultant-expert to perform and report only to counsel on such tests. Having received the unhappy results of the tests, counsel will not ask defendant's trial expert to perform them. It is then very unlikely that plaintiff's counsel will discover the consultant-expert's work. . . . Ideally, the trial expert should not even know that the consultant-expert exists.<sup>90</sup>

Similarly, a lawyer in a personal injury case may send his client to four different doctors, and use the one with the most pessimistic evaluation. This is not merely a refinement of the process of selecting experts on the basis of their predilections. Different diagnostic procedures may produce different results; by consulting several doctors who use different methods the lawyer can add that choice to his repertoire. To the extent that the lawyer needs advice to orchestrate these experts, he can get it from a consulting expert, and can even pay the consulting expert to run all the tests herself before the lawyer ever talks to any potential testifying experts.

Finally, there is the operation of chance. The plaintiff's condition may vary from day to day. By sending her to several doctors, the lawyer can choose a doctor who happened to see her on a bad day rather than

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89. Thomas V. Harris, *A Practitioner's Guide to the Management and Use of Expert Witnesses in Washington Civil Litigation*, 3 U. PUGET SOUND L. REV. 159, 164 (1979).

90. Suplee & Woodruff, *supra* note 73, at 11. See also Ostroff, *supra* note 78, at 9 ("If you do decide to retain an expert solely as a consultant, be sure to insulate him from your expert witnesses so that your communications with the consultant and his work product will not be discoverable.").

those who saw her on good days.<sup>91</sup> In an extreme case, a trademark infringement plaintiff could commission several surveys by different experts, in the plausible hope that by chance or the operation of minor methodological quirks one of them will show a high likelihood of public confusion between her product and that of the defendant. The presentation of expert evidence in this selective manner can be misleading, to say the least, but as long as the different experts are isolated from each other, the practice of consulting a series of experts in the hope that one will report something useful is both legal and nondiscoverable. The only concealment is by the lawyer, who is permitted to do such things.

Frequently attorneys do more than limit and select the information that their experts receive; they shape the experts' work product as well. One common practice is to avoid producing evidence. In a system that depends on oral evidence, written statements by a witness often serve primarily to restrict her flexibility and to arm the opposing attorney. Therefore, practice manuals and articles regularly tell lawyers to "[d]iscourage the expert from preparing written reports" because they "are rarely useful to counsel, except to your adversary in cross-examination."<sup>92</sup> Attorneys are also urged to advise the expert that if she keeps notes "opposing counsel probably will ask to see those notes at deposition or at trial," but that there "is nothing wrong with the expert discarding notes as they become useless if that is her normal practice . . . ."<sup>93</sup>

But these are merely defensive measures. To be effective, the attorney must produce affirmatively favorable testimony. Almost every

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91. Rule 35 of the Federal Rules of Civil Procedure limits a party's opportunities to manipulate medical testimony a bit. Under Rule 35, an opposing party may obtain an order requiring a party whose medical condition is at issue to submit to an examination by a doctor chosen by the opponent. The person examined is entitled to a detailed report of this examination, but if she requests and receives such a report, her opponent will then be entitled to receive "a like report of any examination, previously or thereafter made, of the same condition . . . ." FED. R. CIV. P. 35(b). In other words, if a party wants to engage in the sort of medical opinion shopping I have described, she must forfeit her right to receive Rule 35(b) reports from the opposition. No similar provision applies outside the context of medical examinations.

92. Daniels, *supra* note 77, at 66. See also, e.g., Douglas Danner, *Expert Testimony in Medical Malpractice Cases*, FOR DEF., June 1983, at 14-15 (1983) ("[I]t is suggested that the expert *not* reduce his opinions to writing, because counsel should avoid any negative material being available to the other side."); Harris, *supra* note 65, at 165 ("In most cases such a report should *not* be written. A report unnecessarily commits an expert witness to a particular position and to the factual data upon which he has relied") (footnote omitted); Robert Payne Karr, *Open Forum, An Analysis and Demonstration of the Use of Experts in Professional Liability Litigation*, 50 INS. COUNS. J. 67, 68 (1983) ("[I]f the expert feels that he is morally or ethically bound to set forth the weakness in your case in his report, then you have got some serious questions to answer in terms of whether you ask him to submit a written report.").

93. Suplee & Woodruff, *supra* note 73, at 20-21.

aspect of the preparation of experts is designed in part to bring this about. The only question is how far lawyers may (and do) go to achieve that goal. Attorneys are not allowed to counsel a witness to testify falsely; to do so would violate rules of professional conduct and criminal statutes prohibiting the subornation of perjury.<sup>94</sup> But what do these restrictions mean in practice? A panel of six lawyers interviewed by Robert Goldstein agreed that it is unethical for a lawyer to try to persuade a psychiatrist to misrepresent her actual opinion about a plaintiff's mental history, but that "it is permissible to actually suggest to a witness the particular words to use in testimony, or even certain items of testimony he may have forgotten, disregarded or minimized . . . ."<sup>95</sup> Another lawyer recognizes that "[t]here exists somewhere a line between good preparation and falsification of [the] evidence."<sup>96</sup>

That means that if trial counsel wants the expert to change something in a draft report, the question is not simply, "will you change this?" but "will your conclusions be valid if you change this? Can you testify under oath comfortably with the change?"<sup>97</sup>

The possibility of improper influence is inherent in adversarial preparation of *all* witnesses. The most susceptible witnesses, no doubt, are the parties themselves, and those closely associated with them. Among witnesses who are unaffiliated at the outset, however, experts are far easier to manipulate than lay witnesses. Not only are the chances of success greater, but the risks are much smaller. Lay witnesses have less freedom to shape their testimony, and most of them have less incentive to do so. Moreover, if the attempt fails it is more likely to backfire. An uncooperative expert can be concealed during discovery, but a recalcitrant lay witness cannot; while the lines separating perjury from mistake and preparation from falsification are always faint, for experts they are virtually undetectable.<sup>98</sup> Finally, the low regard that many attorneys have for expert witnesses may make them willing to manipulate expert testimony in a manner they would never consider ethically acceptable for lay testimony.

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94. 18 U.S.C. § 1622 (1948); MICH. COMP. LAWS ANN. § 750.424 (West 1968); CAL. PENAL CODE § 127 (Deering 1985); MODEL RULES OF PROFESSIONAL CONDUCT Rule 3.4(b); MODEL CODE OF PROFESSIONAL RESPONSIBILITY DR 7-102(A)(6); MODEL PENAL CODE § 241.6(1) (Proposed Official Draft 1962).

95. Robert L. Goldstein, *Hiring the Hired Gun: Lawyers and Their Psychiatric Experts*, 11 LEGAL STUD. F. 41, 48 (1987).

96. Bloom, *supra* note 86, at 25.

97. *Id.*

98. See *infra* note 202 and accompanying text.

All this hiding and manipulating comes at a cost. For it to work, the lawyer must remain firmly in charge, the director of the project, with the expert witness more or less following orders. This limits the value of the expert's contribution. Obviously, fact finding suffers, but the attorney himself may also receive worse expert advice and assistance than he would if the witness were treated as a partner rather than a tool.<sup>99</sup>

Thus far in my description of the process of preparing expert testimony I have tacitly assumed that the lawyer who retains the expert has the time, the resources and the drive to do all the things that can be done with this instrument. This assumption, of course, is often false, but it is useful for a description of the entire range of problems that can occur in any case that includes expert witnesses. In practice, of course, there is an enormous range in the time and money that lawyers devote to expert evidence.<sup>100</sup>

Some cases are large enough to warrant the full treatment, and, because of their size, they are uncommonly important: mammoth antitrust cases, major products liability cases, etc. In other cases, both sides invest heavily in expert evidence, but within limits. Large personal injury and medical malpractice cases fall into this category. In yet other cases, one party has far better access to expert assistance and expert witnesses than the other. In criminal cases, for example, the prosecution often has a virtual monopoly in forensic chemistry<sup>101</sup> (a particularly troubling state of affairs, considering telling evidence that forensic chemists are very often wrong).<sup>102</sup> Similarly, in some civil rights and school desegregation cases the plaintiffs have dominated the development

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99. See Henry R. Pihler et al., *Product Liability and the Technical Expert*, 186 SCIENCE 1089, 1091 (1974).

100. In their 1983 book, *The Use of Scientific Evidence In Litigation*, Michael Saks and Richard Van Duizend present a collection of nine case studies of trials that used expert witnesses, six criminal and three civil. These trials are hardly representative of the run of litigation, but they illustrate the vast disparities between cases. In a Title VII case, for example, "[e]ach side employed a contingent of experts presenting complex statistical analyses," SAKS & VAN DUIZEND, *supra* note 16, at 32, and "[m]ention was made of the 'clean' vs. 'dirty' expert (one for preparation, to whom all is revealed; one for trial, whose knowledge of the case is kept limited)." *Id.* at 34. By contrast, in an arson case which turned on scientific evidence the prosecutor used two experts but spent very little time preparing them, while the defense called no experts of its own (despite the existence of an exculpatory laboratory report), made no attempt to contact the prosecution witnesses, and failed to reveal telling weaknesses in the state's case. *Id.* at 38-39.

101. Paul M. Levitt & Elissa S. Guralnick, *Chemist in the Courtroom: An Interview with Professor Robert Shapiro about Drugs, Forensic Chemists, and the Law*, NAT'L. J. CRIM. DEF., Fall 1987, at 235; SAKS & VAN DUIZEND, *supra* note 16, at 87-89.

102. JOSEPH L. PETERSON ET AL., CRIME LABORATORY PROFICIENCY TESTING RESEARCH PROGRAMS (1978).

of expert evidence at the expense of government defendants.<sup>103</sup> In these situations, our method of using expert evidence confers a heavy advantage on the side with superior resources. Needless to say, this is not the only aspect of our system of litigation that favors parties with money, but the difference here is particularly large both because attorneys can do so much to shape and manipulate expert testimony, and because the cost of doing it can be so high.<sup>104</sup>

At the low end of the spectrum, there are many cases in which the lawyers are not competent enough, or do not care enough, or cannot afford to do anything more than cursorily prepare their experts. In these cases there is a fresh set of problems. Because expert testimony is more difficult and complex than lay testimony, minimal preparation is likely to produce incomprehensible evidence, not to mention poor use of the available expertise. There is a partial cure for this problem, but it may be worse than the disease. Professional witnesses—experts who have testified repeatedly on the same subject—require relatively little preparation. If these witnesses can be found, they make the process much more efficient. Unfortunately, these are the witnesses who are most susceptible to the biasing effects of partisan selection, and who have best learned how to manipulate the impact of their testimony independently of its value.

The preparation of expert testimony also suffers from a general failure to take advantage of the special possibilities for rational development of expert evidence. Pre-trial communication between different eyewitnesses to an event will usually degrade rather than improve the evidence. Each witness is supposed to testify to her own recollection; communication between witnesses can only blur the lines between memory and hearsay, and reduce the independent value of the separate witnesses. The opposite is true with experts. Expert opinions are developed after the fact and should, ideally, be based on the widest possible range of information, including the opinions and observations of other experts, especially the opinions of experts with different points of

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103. See CHESLER et al., *supra* note 55 (school desegregation cases); TED MARVELL, MISUSES OF APPLIED SOCIAL RESEARCH, IN THE USE/NONUSE/MISUSE OF APPLIED SOCIAL RESEARCH IN THE COURTS 29 (Michael J. Saks & Charles H. Baron, eds. 1980) (discussion of the evidence on IQ tests at the preliminary injunction phase of *Larry P. v. Riles*, 343 F. Supp. 1306 (N.D. Cal. 1972)).

104. A 1983 article in the *Los Angeles Lawyer* argues that "[y]ou need to invest money in a trial . . . . Experts, in particular are a necessary fact of litigation." The article describes a telling, if perhaps extreme example: the case of *Hasson v. Ford Motor Co.*, 564 P.2d 857 (Cal. 1977), a products liability case that was re-tried after a verdict of \$1.1 million was reversed on appeal. The second time around the plaintiff spent \$800,000 on the trial, much of it to prepare and present evidence from 15 expert witnesses. He was rewarded with a verdict of \$11.6 million. Janet Bogigian, *The Merchants of Evidence*, L.A. LAW., 1983, at 14, 17. See *Hasson v. Ford Motor Co.*, 650 P.2d 1171 (Cal. 1982).

view. At trial, opposing experts are likely to criticize each other's opinions and methods. The overall quality of the expert evidence would be higher, and the presentation clearer, if the experts presented these objections to each other directly and in time to respond intelligently or even revise their positions. Some differences of opinion might be ironed out in advance; at a minimum, areas of agreement and disagreement could be clearly identified. Unfortunately, this type of communication rarely takes place, leaving all differences to be resolved in courtroom battles. Although there are no legal rules that restrict pre-trial communication between opposing experts, neither are there any procedures that require or encourage it, and the attorneys who hire expert witnesses—always anxious to maintain control and preserve any apparent tactical advantage—generally discourage or effectively prohibit such contacts.

For similar but stronger reasons, attorneys discourage their experts from talking informally to opposing counsel. Indeed, one legal writer advises lawyers not to leave this issue to persuasion and voluntary cooperation, but to draft a retainer agreement containing "an exclusivity provision preventing the expert from consulting with any other party to the litigation."<sup>105</sup> It is unethical for attorneys to request (let alone pay) a lay witness "other than a client to refrain from voluntarily giving . . . information to another party,"<sup>106</sup> but courts uniformly tolerate such restrictive practices for experts and occasionally enforce them. In *Campbell Industries v. M/V Gemini*,<sup>107</sup> for example, the defendant conducted several private interviews with an expert that the plaintiff had designated as a trial witness, and persuaded him to change his mind. The trial court described these "*ex parte* contacts" as a "flagrant violation" of the rules governing discovery, and excluded the expert's testimony altogether. In *Healy v. Counts*<sup>108</sup> the plaintiff's attorney provided medical records to two physicians, who reviewed them and concluded there had been no medical negligence. The defense attorneys then happened by chance to consult the same doctors, who were willing to testify to their opinions of the case. The court held, however, that their initial consultations with the plaintiff's lawyer barred the defense from using their evidence.

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105. Graham, Part Two, *supra* note 83, at 195.

106. MODEL RULES OF PROFESSIONAL CONDUCT Rule 3.4(f) (1987). *See also*, e.g., *Gregory v. United States*, 369 F.2d 185 (D.C. Cir. 1966); *Vega v. Bloomsburgh*, 427 F. Supp. 593 (D. Mass. 1977).

107. 619 F.2d 24 (9th Cir. 1980).

108. 100 F.R.D. 493 (D. Colo. 1984). *See also* *Durflinger v. Artiles*, 727 F.2d 888, 891 (10th Cir. 1984) (expert originally designated as probable witness for plaintiff, then redesignated as consultant, could not testify for defendant); *Weaver v. Mann*, 90 F.R.D. 443, 445 (D.N.D. 1981) (private interviews with experts prohibited); *Wenninger v. Muesing*, 240 N.W.2d 333, 336-37 (Minn. 1976) (private interviews with experts prohibited).

Such holdings have serious implications. They impose restrictions on experts, including prospective witnesses, that have no parallel except for the obligations of attorneys to their clients.<sup>109</sup> The decision in *Healy*, for instance, enables a party to suppress the evidence of any expert who has agreed to review materials in a case and offer an opinion—a veto power that must come as a shock to an expert who is subject to it. There are, of course, legitimate reasons for attorneys to want to communicate with experts in confidence. For example, they may need expert advice to interpret privileged information. For such purposes, attorneys are allowed to contract with experts for confidential, or even exclusive, services, and they frequently do so. What is extraordinary in these cases is the willingness of some courts to impose similar duties—exclusivity as well as confidentiality—on experts who never agreed to them.

The Federal Rules of Civil Procedure provide no basis for these rulings. They impose no such restrictions on a party's right to call witnesses at trial, and they do not limit (or even discuss) a party's right to conduct non-judicial discovery and investigation.<sup>110</sup> Similarly, the rules of professional conduct that govern lawyers place no limits on a party's right to interview a non-party expert who is not represented by an attorney.<sup>111</sup> Other courts that have faced the issue have concluded that in the absence of a privilege that can be asserted by the opposition, "an

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109. Prior to the 1970 amendment to Federal Rule of Civil Procedure 26(b)(4), some courts treated expert information that was provided to an attorney as the attorney's work product, under the doctrine that originated with *Hickman v. Taylor*, 329 U.S. 495 (1947). See *United States v. McKay*, 372 F.2d 174, 176-77 (5th Cir. 1967). The advisory committee that drafted the 1970 amendment explicitly rejected this analysis as "ill considered," and instead based its new provisions on the doctrine of unfairness. FED. R. CIV. P. 26(b)(4) Advisory Committee note, 48 F.R.D. 487, 505 (1970). See also, e.g., *Grinnell Corp. v. Hackett*, 70 F.R.D. 326 (D.R.I. 1976) (previous holdings that expert information was within work-product doctrine were completely repudiated by amended Rule 26(b)(4)); *Hewlett-Packard Co. v. Bausch & Lomb, Inc.*, 116 F.R.D. 533 (N.D. Cal. 1987). Some state courts, however, continue to include expert information within the scope of their own work product rules. See, e.g., *Brokopp v. Ford Motor Co.*, 139 Cal. Rptr. 888, 898 (1977).

110. The judge in *Healy* recognized that the issue before him was not covered by Rule 26(b)(4)(B) of the Federal Rules of Civil Procedure, and therefore based his holding on "policy decisions." 100 F.R.D. at 496. See Jeannine Huber, Note, *Healy v. Counts: Discovering Informally Consulted Experts Under Federal Rule of Civil Procedure 26(b)(4)(B)*, 33 S.D. L. REV. 340 (1988).

111. The only rule that is even close to this area is the prohibition against communication by an attorney with a party who is represented by counsel, without that counsel's consent. MODEL RULES OF PROFESSIONAL CONDUCT Rule 4.2 (1989); MODEL CODE OF PROFESSIONAL RESPONSIBILITY DR 7-104(A)(1) (1979). In addition, EC 7-18 of the Model Code advises against communications with any person who is represented by counsel, except with counsel's consent. For a concise discussion of this problem, see Robert C. Hacker & Ronald D. Rotunda, *Officers, Directors and Their Professional Advisers: Rights, Duties and Liabilities*, 5 CORP. L. REV. 348 (1982).

adversary may inquire, in advance of trial, by any lawful manner . . . what any witness knows,"<sup>112</sup> if the witness is willing. Moreover, "[e]ven an expert whose knowledge has been purchased cannot be silenced by the party who is paying him on that ground alone."<sup>113</sup>

In most cases, of course, there is no need to silence experts against their will. It is usually easier and cheaper to persuade them to hang up on the opposing attorney, or to pay them to do so. Cases like *Campbell* and *Healy*, however, illustrate the extent of the power that attorneys may be able to exercise over experts in those marginal situations in which compulsion is necessary. These cases also illustrate how far the status of experts has diverged from that of ordinary witnesses. We progress by steps: first, experts may be chosen and paid by the parties; second, their identities and information may be concealed from the opposing parties; third, they may not be subpoenaed by the opposition if they are discovered; last, the experts may not voluntarily testify for the opposing parties—indeed, they may not even talk to them. In effect, many judges seem to view experts more as confidential agents of the parties or their attorneys than as witnesses.<sup>114</sup>

The attorney's power to isolate his expert witnesses is limited by the rules of discovery. Testifying experts are likely to be subjected to extensive, burdensome and frequently wasteful questioning from opposing counsel in the form of interrogatories and pre-trial depositions. Interrogatories and depositions can be useful, of course. They may limit surprise at trial and facilitate settlements, and, to the extent that the information obtained is passed along from each attorney to the experts on his side, they can serve as partial substitutes for direct discussions between opposing experts. But formal discovery is an inefficient way for experts to communicate with each other or with anyone else. Experts are instructed to view discovery not as a forum for exchanging information, but as the first round of a battle. Preparing for depositions, for example, lawyers routinely warn their experts to be wary of the opposing lawyer, to recognize his hostile intentions, and to answer his questions with as

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112. *Doe v. Eli Lilly & Co.* 99 F.R.D. 126, 128 (D.D.C. 1983).

113. *Id.* See also *IBM v. Edelstein*, 526 F.2d 37, 42 (2d Cir. 1975) (upholding party's "time-honored" right to privately interview willing adverse witnesses, including experts); *Alston v. Greater Southeast Community Hosp.*, 107 F.R.D. 35 (D.D.C. 1985); *Arctic Motor Freight, Inc. v. Stover*, 571 P.2d 1006, 1009 (Alaska 1977) (expert may talk to opposing counsel if he wishes); *State ex rel. Stufflebam v. Appolquist*, 694 S.W.2d 882 (Mo. Ct. App. 1985) (same); *Lazorick v. Brown*, 480 A.2d 223, 226-30 (N.J. Ct. App. 1984) (follows *Eli Lilly*).

114. This view of experts as party agents is also illustrated by *Collins v. Wayne Corp.*, 621 F.2d 777, 780-82 (5th Cir. 1980), in which the court held that an expert's deposition could be offered at trial by the opposing party as an admission by an agent of the party that retained him. See also *Brown & Root, Inc. v. American Home Assurance Co.*, 353 F.2d 113, 116 (5th Cir. 1965).



little information as is honestly possible.<sup>115</sup> Needless to say, this coaching not only restricts the flow of information, but also (like so many other aspects of preparation) encourages the expert to view litigation as a fight in which she must take sides. Unfortunately, this sort of wariness is entirely warranted. Experienced attorneys learn to be friendly and unchallenging at pre-trial depositions of expert witnesses, but their friendliness is dishonest.

Deposing counsel should be careful not to destroy the other side's expert unless the case is too close to trial for the other side to obtain a new expert. . . . There are few more frustrating experiences in litigation than completely undercutting the other side's expert at deposition only to find that she has been replaced.<sup>116</sup>

On the other hand, "[f]inding out everything about the expert and about the opinion will prepare you for destroying the expert in the courtroom where destruction should take place."<sup>117</sup>

Finding out everything is a wearying job. A cross-examiner at trial has an incentive to limit the breadth and length of his examination so that it will be intelligible and persuasive; he is also restricted by the rules of evidence. At a deposition (or in interrogatories) there is no such incentive, and the usual rules of evidence do not apply. As a result, a deposition is not only a dangerous encounter for an expert witness, it is likely to be lengthy, boring and tedious as well.

Lay witnesses are also subject to the burden of pre-trial discovery, but not to the same extent. In general, non-party witnesses may not be served with written interrogatories. This is theoretically true for experts, but as a practical matter they are required to respond to interrogatories about their testimony that are addressed to the parties that hire them. In addition, since expert testimony is often complex, and since the opposition

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115. See, e.g., Melvin Belli, *The Sparks of Conflict: Advice to the Expert Witness*, 4 AM. J. FORENSIC PSYCHIATRY 67, 73 ("[D]on't be thrown by the informality or by the courtesy of opposing counsel when they are present. Remember that what you say . . . will be called back to haunt you and will form the basis of the cross-examination in the courtroom . . . . In a discovery deposition, don't volunteer!"); Larry S. Vines, *The Expert Witness in Depositions*, TRIAL, Jan. 1984, at 47-48 ("The expert should be humble and sincere . . . . The expert should not volunteer . . . . The expert should never forget that an adversary proceeding is progressing . . . . [H]owever cordial or friendly the proceedings may become, the expert should never forget that defense counsel is there to wreck the plaintiff's case.").

116. Dennis R. Suplee & Margaret S. Woodruff, *Deposing Experts*, 33 PRAC. LAW., Oct. 1987, at 69, 76.

117. Richard T. Jones, *The Defense: Impeaching Your Opponent's Expert*, BRIEF, Summer 1985, 42, 44.

may want to attack the expert at trial with uncommon vigor, experts are likely to be deposed at greater length and in more painful detail than other non-party witnesses. This creates yet another incentive for the conscientious expert to exercise a choice that is not available to a lay witness: to decline to testify in the first place and let some other expert take her place, one who enjoys the fight or is more interested in the money.

### C. Presenting Testimony

#### 1. THE RULES OF EVIDENCE

The basic mode of presenting lay testimony is fairly straightforward. The witness is called and sworn, and answers some basic background questions: how old are you? where do you work? where do you live? are you married? etc. Beyond that, the attorney who calls her may do little if anything to develop the character of the witness in an attempt to bolster her testimony. Next, the witness's attention is directed to the events at issue, for example a car crash that occurred two years before. The witness is asked to describe her perceptions of that crash: what she saw, what she heard, perhaps what she felt or smelled. In most cases the content of the testimony dictates its structure; in this example it would probably be a simple chronological account. There are some restrictions on the type of questions that may be asked of the witness. In particular, the attorney who calls the witness may not, in general, ask leading questions (questions that "suggest" the desired answer) on disputed issues, and will sometimes be prohibited from asking questions that call for long "narrative" answers.<sup>118</sup> If the witness needs to, she may refer to previous statements or other memoranda to help her remember the incident. If appropriate, she may be asked to identify documents or other physical objects that play some role in the events, and, if it is helpful, she will be allowed to make use of diagrams, pictures, maps, or models to clarify her testimony.

The subject and the scope of lay testimony are infinitely variable. A witness may testify about a series of related events, or a sequence of business transactions over several years, or the signing of a single document. Some witnesses are called to describe their own actions; often a witness is asked to recall her reasons for doing some act or for neglecting to do it. But the general nature of lay evidence is always the same: a lay witness may testify about her own perceptions, and, if relevant, about her own state of mind at the time of the events at issue—and that is all. She may not guess or draw inferences about events that she did not perceive, or offer an explanation for events that she did

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118. See, e.g., FED. R. EVID. 611; MCCORMICK, *supra* note 76, § 5.

perceive, or testify about the observations of others, or (with some exceptions) report the statements of others (or even her own past statements) describing past events, or comment on the testimony of another witness.

These restrictions reflect two fundamental concerns of common law fact finding. The first is the division of functions. The trier of fact is supposed to have exclusive power to judge evidence; the role of the witness is to present evidence, not to evaluate it. The second concern is the reliability of evidence. The common law rules of evidence attempt to insure the reliability of the evidence presented at trials by a variety of exclusionary rules. The most important of these are the rule against hearsay<sup>119</sup> (an expression of suspicion about the reliability of out-of-court statements) and the requirement that a witness testify from personal knowledge.<sup>120</sup> In this context, a particularly important manifestation of these two concerns is the common law's mistrust of lay opinion testimony. Opinion evidence is suspect on both grounds: the formation of an opinion is seen as an element of the process of evaluating evidence, which is the function of the judge or the jury and not that of the witness. In addition, a witness's opinions are, arguably, less reliable than her perceptions. As a result, traditional common law rules of evidence prohibited lay witnesses from testifying to "opinions" or "conclusions" and purported to limit them to "facts."<sup>121</sup>

A rigorous rule against lay opinion evidence would be unenforceable. Many descriptions of observations have simple inferences and conclusions embedded in them. When a witness testifies that a person she saw "was my friend Bob," that a conversation lasted "about five minutes," or that a car was parked "about ten feet from the corner," she is expressing opinions. The witness, however, might be utterly unable to pare these statements down to sensory data on which they are based—images, angles, etc.—and if she did manage, the resulting testimony would be extremely awkward and uninformative. As a result, the common law rule was probably never literally enforced. Where it has been retained, it is compromised by major exceptions,<sup>122</sup> and most American jurisdictions have overhauled the traditional rule entirely. For example, the Federal Rules of Evidence specify that a non-expert witness may testify to those opinions that are (1) "rationally based on the perception of the witness,"

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119. See MCCORMICK, *supra* note 76, §§ 244-53; 5 WIGMORE, *supra* note 4, §§ 1361-64 (Chadbourn rev. 1974); FED. R. EVID. 801, 802 advisory committee's note, 56 F.R.D. 183, 288-92 (1973).

120. See FED. R. EVID. 602; MCCORMICK, *supra* note 76, § 10; 2 WIGMORE, *supra* note 4, §§ 650-664.

121. See MCCORMICK, *supra* note 76, § 11; 7 WIGMORE, *supra* note 4, §§ 1917-2028.

122. See MCCORMICK, *supra* note 76, § 11; WIGMORE, *supra* note 4, § 1918.

and (2) helpful in resolving the case.<sup>123</sup> Both parts of this rule are important. If descriptions of concrete observations will provide more information, lay opinion testimony may be excluded even if it is based directly on the perceptions of the witness. With expert witnesses, none of the rules I have described applies in any meaningful sense: not the division of function between witness and jury, not the rule against hearsay, not restrictions on opinion testimony, not even the requirement of personal knowledge. It is no exaggeration to say that the usual rules of evidence simply do not apply to experts.

At the core of the separate set of rules that govern expert testimony is the nature of expert opinion evidence. Opinion evidence is not the only type of testimony offered by expert witnesses, but it is the most common. Moreover, even when the testimony is couched in different terms, expert opinions are integral to all expert evidence. The advisory committee's comment on Rule 702 of the Federal Rules of Evidence inadvertently illustrates this point. The committee criticizes previous writers for assuming that "experts testify only in the form of opinions," when in fact an expert "may give a dissertation or exposition of scientific or other principles relevant to the case, leaving the trier of fact to apply them to the facts."<sup>124</sup> The committee is right that an expert witness may leave it to the judge or jury to draw any ultimate factual conclusions from her testimony; most likely, the committee hoped to encourage experts to testify in that form. It is also true that such testimony is not usually called "opinion evidence." But a witness who gives the type of testimony the committee describes must rely on her expert "opinion" (or, to use a word that is less loaded in this context, her expert "judgment") to decide what the relevant scientific principles *are*, and she must make a host of lesser judgments to decide how to organize and present these principles. Even an expert who testifies only to a set of specialized observations—images produced by a CT scanner, for example—cannot avoid making an expert judgment that the technique she has used was appropriate to the task at hand.

In reaching an opinion, an expert, unlike a lay witness, is not restricted to relying on her own perceptions, or even on her own reasoning.<sup>125</sup> Two types of second-hand information are covered by this special liberality.<sup>126</sup> First, an expert may (indeed, *must*) rely on the general body of knowledge that constitutes her field—published tables,

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123. FED. R. EVID. 701.

124. 56 F.R.D. 183, 282 (1973).

125. See CAL. EVID. CODE §§ 801(b), 804 (Deering 1991); MCCORMICK, *supra* note 76, §§ 14-15; 2 WIGMORE, *supra* note 4, § 686;.

126. For a lucid description of the distinction between these two types of information, see Edward J. Imwinkelried, *The "Bases" of Expert Testimony: The Syllogistic Structure of Scientific Testimony*, 67 N.C. L. REV. 1 (1988).

reported experience, established principles, common lore. Typically, the largest component of her expert knowledge is the residue of what she learned from others; sometimes she will have to go back and learn more in order to be useful in a particular case. Expert witnesses have always been allowed to rely on this type of collective knowledge since it is essential to their function. As Wigmore put it, "generalizations which are the result of one man's personal observation exclusively are the least acceptable of all."<sup>127</sup>

Second, an expert witness may rely on other people's observations about the person or object or event at issue. The use of this category of information has been controversial. Traditionally, common law rules of evidence required a witness to base her expert opinions solely upon her own observations, or on explicitly stated assumptions drawn from evidence in the record.<sup>128</sup> The justification for this practice was the plausible argument that the expert should not be allowed to base her opinions on information that was not admissible and before the jury. But despite its obvious logic, this rule was criticized as an unwarranted restriction of the expert's function, and was increasingly compromised by exceptions.<sup>129</sup> Under modern codified rules of evidence it has been abandoned entirely, and experts may base their opinions on any "facts or data" that are "of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject," whether or not these facts or data are in evidence, or even admissible.<sup>130</sup>

The Federal Rules of Evidence contain a major explicit exception to the hearsay rule that applies only to expert witnesses. During the testimony of an expert (on direct or on cross examination) a party may introduce "statements contained in published treatises, periodicals, or pamphlets, on the subject of history, medicine, or other science or art, established as a reliable authority by the testimony or admission of the witness or by other expert testimony or by judicial notice."<sup>131</sup> Other

127. 3 WIGMORE, *supra* note 4, § 687 (Chadbourn rev. 1970); *see also* 2 WIGMORE, *supra* note 4, § 665(b).

128. *See* MCCORMICK, *supra* note 76, § 14; 2 WIGMORE, *supra* note 4, §§ 672-80.

129. *See* MCCORMICK *supra* note 76, § 15; Paul D. Rheingold, *The Basis of Medical Testimony*, 15 VAND. L. REV. 473 (1962); Marvin Katz, Comment, *The Admissibility of Expert Medical Testimony Based in Part upon Information Received from Third Persons*, 35 S. CAL. L. REV. 193 (1962).

130. FED. R. EVID. 703; FED. R. EVID. 703 advisory committee's note, 56 F.R.D. 183, 283 (1973); CAL. EVID. CODE § 801(b) (Deering 1991).

131. FED. R. EVID. 803(18). *See* James W. McElhane, *Expert Witnesses and the Federal Rules of Evidence*, 28 MERCER L. REV. 463, 492-93. Rule 803(4) of the Federal Rules of Evidence, expanding the common law hearsay exception for "statements made for purposes of medical diagnosis or treatment," provides medical experts with another major exception to the hearsay rule.

formulations of the "learned treatise" rule are more restrictive,<sup>132</sup> but it rarely matters (at least not on direct examination<sup>133</sup>), since the modern rule expanding the permissible bases for expert opinions virtually exempts expert witnesses from the hearsay rule altogether.

An expert witness is not merely permitted to offer opinions based on hearsay or other inadmissible evidence, she may also describe all this information in testimony explaining her opinions.<sup>134</sup> This means that the statements of a patient describing her symptoms, the results of tests conducted by laboratory technicians, and the conclusions of other experts whom the witness has consulted, may all be presented to the jury through the mouth of the testifying expert. In theory, any otherwise inadmissible hearsay that an expert witness describes as a basis for her opinions may not be considered as substantive evidence of the underlying facts described, but only as evidence in support of the expert's credibility. This limitation may be significant in arguments to a judge if a party needs to rely on such evidence to satisfy a burden of production and defeat a motion for a directed verdict. It is unrealistic, however, to expect this distinction to have any impact on jurors, even in the unlikely event that opposing counsel objects and asks for a limiting instruction that would call it to their attention.<sup>135</sup>

The only limitation on an expert's right to refer to inadmissible evidence is the requirement that the expert's reliance on these "facts or data" be "reasonable" for an expert in her field. In practice that requirement is usually satisfied by asking the expert herself. The justification for this procedure is the belief that an expert is as competent to "judge the reliability of statements made to her by other investigators or technicians," as "a judge or jury are to pass upon the credibility of an ordinary witness on the stand."<sup>136</sup> The logic of this argument is debatable, since expert witnesses are permitted to make these judgments in

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132. See, e.g., CAL. EVID. CODE § 721(b) (Deering 1991) (treatises, journals, professional texts, etc., may be used for impeachment only, and only if the witness "referred to, considered, or relied upon" them, or they are already in evidence).

133. For a discussion of the use of publications on cross examination, see *infra* notes 183-88 and accompanying text.

134. E.g., FED. R. EVID. 705; CAL. EVID. CODE § 802 (Deering 1991). See MCCORMICK, *supra* note 76, § 16.

135. See McElhaney, *supra* note 131, at 482 n.83. McElhaney points out that the Advisory Committee on the Federal Rules of Evidence addressed this exact issue with respect to statements made to non-treating physicians for purposes of diagnosis, (see FED. R. EVID. 803(4)), and rejected the old rule that such statements were admissible as a basis for the expert's opinion but inadmissible as substantive evidence, because "[t]he distinction thus called for was one most unlikely to be made by juries." FED. R. EVID. 803 advisory committee's note, 56 F.R.D. 183, 306 (1973).

136. MCCORMICK, *supra* note 76, § 15, at 40.

proceedings in which their own credibility is at issue.<sup>137</sup> The consequences of the rule, however, are clear. Expert witnesses are permitted both to draw inferences from evidence and to determine its reliability as a precondition for use. Given this power, even the most basic common law rule of evidence—the requirement that a witness testify from personal knowledge—survives only in vestigial form, mandating only that an expert must have "personal knowledge" that her reliance on the observations and opinions of others is "reasonable."

## 2. DIRECT EXAMINATION

The examination of an expert witness always begins with evidence of her qualifications to testify as an expert. In part, this is an obvious and indispensable requirement; the court must be satisfied that a witness *is* an expert before it considers her expert opinions. That requirement, however, can be met quite easily. The adequacy of an expert's qualifications is an issue of evidentiary "foundation," a preliminary question that must be answered by the court before the expert testimony may proceed.<sup>138</sup> Like most preliminary issues affecting the admissibility of evidence, it is determined by the judge under a standard that favors admissibility: if it appears that the witness has at least the minimal qualifications for an expert in the field in which she is offered, she will usually be permitted to proceed.<sup>139</sup> If that were the sole purpose for evidence on qualifications, the matter would be a simple one.

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137. A similar but perhaps stronger argument can be found in the Advisory Committee Note to Rule 703 of the Federal Rules of Evidence: "[A] physician in his own practice bases his diagnosis on information from numerous sources and of considerable variety. . . . The physician makes life-and-death decisions in reliance upon them. His validation . . . ought to suffice for judicial purpose." FED. R. EVID. 703, advisory committee's note, 56 F.R.D. 183, 283 (1973). Rule 703 may be a good rule, but the argument is a non-sequitur. The issue is not whether the normally restrictive rules of evidence should be loosened to let in the bases of a physician's out-of-court *decisions* on medical diagnosis and treatment, but whether they should be loosened to let in otherwise inadmissible basis for opinion *testimony*, the effect of which, if any, is usually measured in dollars rather than life or health. *See generally* Rheingold, *supra* note 129.

138. *See, e.g.*, FED. R. EVID. 104(a).

139. *See, e.g.*, *United States v. Vighia*, 549 F.2d 335 (5th Cir. 1977) (physician with no particular experience in area could testify on use of drug allegedly to treat obesity); *Wolfinger v. Frey*, 162 A.2d 745 (Md. 1960) (general practitioner may testify to cause of kidney condition); *Parker v. Gunther*, 164 A.2d 152 (Vt. 1960) (general practitioner qualified to testify to brain damage); Norman G. Poythress, *Mental Health Expert Testimony: Current Problems* 5 J. PSYCHIATRY & L. 201, 210 (1977) (first year residents qualify as expert witnesses in psychiatry). Irving Younger's statement that "[i]t is almost impossible to fail to persuade the judge to let the expert give his opinion," Irving Younger, *Expert Witnesses*, 48 INS. COUNS. J. 267, 274 (1981), is an exaggeration, but only a slight one.

But, in fact, the purpose of qualifications testimony is not a simple matter. The proponent of an expert witness may produce evidence on the witness's qualifications to bolster the *weight* of the expert's testimony as well as establish its admissibility. For this purpose, testimony on qualifications is character evidence offered to support the argument that the witness should be believed not because she makes sense or sounds credible, but because of who she is. In other contexts, character evidence may not be used to support a witness unless the opponent has first attacked her credibility, and even then the evidence is generally restricted to the reputation of the witness for truthfulness and to other witnesses' opinions of her truthfulness.<sup>140</sup> As usual, however, the general rule does not apply to experts; their credibility may be bolstered with a much wider range of character evidence, and prior to any attack.<sup>141</sup> The opportunity to present this sort of positive character evidence is a major asset for the proponent of the expert, and may be used even if the opposition offers to stipulate that the witness is qualified. Indeed, experienced practitioners frequently warn the unwary novice to beware of an offer to stipulate to an expert's qualifications. After all, if the expert is good enough to use as a witness, the judge or jury should hear all the good things that can be said about her, in detail.<sup>142</sup>

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140. See, e.g., FED. R. EVID. 608; CAL. EVID. CODE §§ 786, 787, 790 (Deering 1991). See generally MCCORMICK, *supra* note 76, §§ 44, 49. In addition, Rule 608(b) of the Federal Rules of Evidence codifies the common law rule that a witness who gives reputation or opinion testimony about the bad character for truthfulness of another witness may (in the discretion of the court) be cross-examined about specific incidents in the life of the latter witness that seem inconsistent with that negative portrayal.

141. The use of testimony on qualifications to enhance the credibility of an expert presents special problems when the expert is simultaneously a percipient witness, whose testimony in that capacity is subject to the usual restrictions on the use of character evidence. This happens in some criminal cases—especially drug cases—in which a police investigator will testify as a lay witness on some essential facts of the case, and then, in the same trial, be qualified as an expert on certain patterns of criminal behavior and offer opinion testimony interpreting the facts to which she herself has testified. Arguably, this procedure amounts to a form of impermissible prosecutorial "vouching" for the witness. See Phylis Bamberger, *The Dangerous Expert Witness*, 52 BROOK. L. REV. 855, 866-69 (discussing *United States v. Young*, 745 F.2d 733 (2d Cir. 1984)). It certainly gives the prosecutor an opportunity to tell the jury at length about the professional background and accomplishments of a key government witness.

142. See, e.g., Melvin Belli, *The Expert Witness: Modifying Roles and Rules to Meet Today's Needs*, TRIAL, Jul. 1982, 34, 36 ("A trap that many attorneys fall into time after time is the other side's request for a stipulation that the expert is qualified. Stipulating to the qualifications of one's own expert can seriously diminish the effect of that expert's testimony . . ."); William B. Fitzgerald, *Direct Examination of the Medical Expert*, 4 TRIAL DIPL. J., Spring 1981, 44, 46 (same); Mason Ladd, *Expert Testimony*, 5 VAND. L. REV. 414, 422 (1952) ("[O]pposing counsel may be willing to stipulate that the expert is qualified but no greater mistake could be made by the party offering the witness."); Younger, *supra* note 139, at 275 (same). Since evidence on qualifications



And qualification evidence can be quite detailed.<sup>143</sup> An expert may be asked to describe where she went to school from college on, what she studied, the degrees and any academic honors she received, her entire professional career since she completed her schooling, all professional licenses she has earned, any publications she has authored or research she has conducted, any prizes she has been awarded, any other form of professional recognition she can claim, each professional association to which she belongs, any positions she has held in these associations, and any professional experiences that are particularly relevant to the case at hand, such as special training on the particular issues, similar tasks she has handled and other cases in which she has testified as an expert. To avoid a long, even tedious, recitation, some attorneys recommend saving parts of the testimony on qualifications and using them (presumably, to greater effect) at crucial points in the expert's substantive testimony.<sup>144</sup> An alternative is to liven up the presentation by "asking the expert to describe what constitutes a typical day or research project for her."<sup>145</sup> Sometimes a long recital may even be effective *because* it is boring. The audience may not be interested, it may not appreciate all the details—it may not even hear them—but it cannot miss the message: we can sing this witness's praises for a long time.

The opposing attorney, of course, may cross-examine an expert witness about her qualifications. Because qualifications are a foundational requirement, he may do it as a "voir dire" examination before the witness is permitted to offer any substantive expert evidence—an option that is sometimes useful to interrupt the direct examination and test the witness at an early stage. However, since the witness was chosen by the attorney who called her, the opposing attorney will almost never have a realistic hope of convincing the judge that she is insufficiently qualified to testify; the standard is not high, and if it was a close call a different expert would have been hired in the first place. Unfortunately, this screening process turns almost entirely on credentials, which are an imperfect proxy for

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goes to the credibility of the witness as well as the preliminary question of her competence to testify as an expert, the proponent of the expert is entitled to present this evidence to the jury, see FED. R. EVID. 104(c), and it is error to cut it off even in the face of a concession that the expert is qualified. *Murphy v. National R.R. Passenger Corp.*, 547 F.2d 816 (4th Cir. 1977).

143. See, e.g., Harris, *supra* note 65, at 173 ("As much time as possible should be spent in drawing out the education, experience, and professional status of the expert."); Irving Younger, *A Practical Approach to the Use of Expert Testimony*, 31 CLEV. ST. L. REV. 1, 14-17 (1982) (same, with specific advice).

144. See, e.g., Nick Critelli, *Trial Technique*, 30 MED. TRIAL TECH. Q. 114, 115-17, 126 (1983) (illustrating this method); JAMES MCELHANEY, MCELHANEY'S TRIAL NOTEBOOK 356 (1987).

145. Dennis R. Suplee & Margaret S. Woodruff, *Direct Examination of Experts*, PRAC. LAW., Dec. 1987, at 53, 56.

knowledge. The graduate student who knows more about the effects of a particular virus than anybody might not qualify as an expert witness on the topic, and therefore would probably never be called as a witness. The chairman of the graduate student's department, on the other hand, will qualify easily, no matter what she knows.

Since excluding the witness is not feasible, the common functions of cross-examination on qualifications testimony are more limited. The opposing attorney may try to embarrass the witness with negatives, such as, "You are not board certified in neurophysiology, are you Doctor?"<sup>146</sup> If possible, the cross-examiner may take this opportunity to run through a list of impressive sounding attributes of *his* expert witness which the opposing expert lacks—a fitting set-up for that great *ad hominem* conflict, the forensic battle of experts.<sup>147</sup> If he can, the cross-examiner may also try to paint the expert as a hired gun by going through a list of cases in which the expert testified for the same side or for the same lawyer.<sup>148</sup>

One effect of this remarkable process is to deter many well informed experts from agreeing to participate in litigation. Some are unwilling to be publicly questioned about gaps or embarrassments in their careers that

146. A common version of this tactic is to berate psychologists for not being psychiatrists. For example, one writer quotes from a prosecutor's manual: "[I]n addition to taking apart the tests piece by piece . . . you should ask the following question: You are not a medical doctor—is that correct? You are not a psychiatrist." Joseph T. Smith, *The Forensic Psychologist as an Expert Witness in the District of Columbia*, 4 J. PSYCHIATRY & L. 277, 283 (1976). Similarly, a psychologist "is sometimes compelled to acknowledge that he or she is prohibited by law from using some common treatment techniques such as medication, for example. The inference is that the witness is a distinctly second-class treatment professional." George E. Dix & Norman D. Poythress, *Propriety of Medical Dominance of Forensic Mental Health Practice: The Empirical Evidence*, 23 ARIZ. L. REV. 961, 970 (1981). One author reports an interesting variation on this theme—a cross examination of a heavily published witness, pointing out that "many of the matters he had written about were not specifically on the point of the particular medical issue being tried." F. Hastings Griffin, *Impartial Medical Testimony: A Trial Lawyer in Favor*, 34 TEMP. L.Q. 402, 412-13 (1961).

147. "If one side is using a dentist as an expert and the other side is using an oral surgeon, the cross-examination may point out that the dentist has not had as much training as an oral surgeon. . . . The same procedure is often used when one expert has a longer list of credentials than the other, or has substantially more practical experience." James F. Neal & James Y. Doramus, *Cross Examination*, in LEGAL MEDICINE WITH SPECIAL REFERENCE TO DIAGNOSTIC IMAGING 87, 97 (A. Everette James Jr. ed., 1980). See also, e.g., Dennis R. Suplee & Margaret S. Woodruff, *Cross Examination of Expert Witnesses*, 34 PRAC. LAW., Jan. 1988, at 41, 45. In an extreme case, "[o]utcome can almost be predicted if the other side's expert recognizes your person as the most renowned expert in the field." Richard T. Jones, *The Defense: Impeaching Your Opponent's Expert*, 14 BRIEF, Summer 1985, 42, 43.

148. See *Significant Court Decisions*, 29 DEF. L. J. 211 (1980) (annotation of *Wilson v. Stilwill*, 284 N.W.2d 733 (Mich. 1979), discussing this technique).

may have no possible bearing on the value of their testimony. Others simply want to avoid the sort of scrutiny that is routinely recommended for expert witnesses: "If the [opposing] expert has extensive academic credentials, try to get transcripts of his grades as a student . . . ." <sup>149</sup> "Former employers or co-employees can be good sources of information on an expert."<sup>150</sup> Yet others are disturbed not only by the unfair criticisms, but also by the misplaced praise. Thus, for example, Dr. Manfred Guttmacher, an eminent forensic psychiatrist, has explained how uncomfortable it can be for an expert witness to be "greatly embarrassed by the counsel who has called him to the witness stand, on hearing a fulsome presentation of his various professional attainments, many of them impressive to the layman but having little bearing on his degree of expertness, only to have, in turn, opposing counsel question his professional competence . . . ." <sup>151</sup>

After the expert witness has been qualified, the examination may follow any number of different patterns. Under traditional common law rules, a witness was not permitted to testify to an expert opinion unless she had previously specified the information on which she relied. If some of that information was not personally known to her, it was supplied by the lawyer who questioned her in the form of a hypothetical question.<sup>152</sup> This practice was strongly criticized because it encouraged a conspicuous abuse: the examiner would ask the witness to "assume" the accuracy of the facts he was about to state, proceed to give a long, detailed and partisan summary of the evidence on the issue (both that which had been presented and that which was anticipated), and conclude with a request for the expert's opinion given that "assumption." This procedure enabled the lawyer, in effect, to sum up the evidence in mid-trial, and to appear to receive an endorsement for his summation from the witness.<sup>153</sup> It did little, however, to clarify the basis for the expert opinion that was ultimately given, both because the hypothetical question used was often wonderfully complex, and because much of the hypothetical information in the question might well be irrelevant to the expert's conclusions.<sup>154</sup>

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149. Peter J. Ostroff, *Experts: A Few Fundamentals*, 8 LITIG., Winter 1982, 8, 9.

150. Dennis R. Suplee & Margaret S. Woodruff, *The Pretrial Use of Experts*, PRAC. LAW., Sept. 1987, at 9, 24.

151. At Manfred S. Guttmacher, *Problems Faced by the Impartial Expert Witness in Court: The American View*, 34 TEMP. L.Q. 369, 370 (1961).

152. See MCCORMICK, *supra* note 76, § 14; 2 WIGMORE, *supra* note 4, §§ 672-85.

153. See, e.g., Younger, *supra* note 143, at 27-29.

154. See, e.g., 2 WIGMORE *supra* note 4, § 686; Charles T. McCormick, *Some Observations Upon the Opinion Rule and Expert Testimony*, 23 TEX. L. REV. 109, 128-30 (1945); Ladd, *supra* note 142, at 427. *Treadwell v. Nickel*, 228 P. 25 (Cal. 1924) (cited in McCormick, *supra*, at 126) is an amusing illustration of the bizarre extremes that are possible under this procedure: it includes a description of an *eighty-three page*

Most American jurisdictions have abolished the hypothetical question as a requirement. Modern evidence codes, as a corollary to allowing an expert witness to rely on inadmissible evidence in forming her opinions, permit an expert to "testify in terms of opinion or inference and give his reasons therefor without prior disclosure of the underlying facts or data."<sup>155</sup> But while hypothetical questions are no longer required as a foundation for expert testimony, neither are they forbidden, and they may still be used as one of several methods of organizing expert testimony.

If the direct examiner does not use hypothetical questions, expert testimony under modern rules of evidence may follow a variety of formats. The witness may state a simple conclusion—"The plaintiff is permanently and totally disabled"—without any explanation,<sup>156</sup> or she may go through the information she has acquired, item by item, explaining the significance of each piece, then give a lecture on general principles that apply to the issue, and conclude with her expert opinion; or she may start with her opinion and then justify it with whatever portion of the underlying facts and reasoning seems most useful. In the process she may read or summarize passages or entire articles from the published literature in her field. In theory, expert testimony is subject to those rules of evidence that dictate the form and manner of questioning. In practice, these rules too are applied in diluted form. In particular, an expert witness may be asked leading questions about disputed issues on direct examination—the traditional hypothetical question is a glaring example—and experts are usually given greater leeway than lay witnesses to testify in unbroken narrative format.

Ideally, the testimony of an expert should instruct the trier of fact in the witness's discipline, and, to some extent, it often does. But instruction in a strange field is difficult even under the most favorable circumstances. When the subject is complex, the instructor may be forced to choose between competing goals. Clarity can often be achieved only at the expense of accuracy, and arguments based on reason are frequently less efficient teaching devices than arguments based on authority. These problems are exacerbated in court, where the conditions for instruction are far from ideal.

A witness testifying as an expert does not lecture to students who have had to satisfy various requirements to hear her. She must present information in interrogatory form, subject to objections and interruptions, to an unfamiliar audience that has no particular background in the area and over whom she has no power. She cannot pose questions to her listeners, let alone give them tests and grades. She is not even allowed

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hypothetical question, followed by a *fourteen page* objection.

155. FED. R. EVID. 705; *see also* CAL. EVID. CODE § 802 (Deering 1991).

156. *See* 3 JACK WEINSTEIN & MARGARET A. BERGER, WEINSTEIN'S EVIDENCE § 705[01], at 705-2 (1975); Younger, *supra* note 143, at 29-30.

to speak of her own volition. The lawyers and the judge ask her questions, and they can compel her to answer in their terms. In addition, and more important, the primary purpose of her testimony is not to instruct but to persuade, and confusion, even legitimate and inevitable confusion, is rarely persuasive. This drives expert witnesses to compromise accuracy to achieve clarity, and to favor simple assertions over complex explanations.<sup>157</sup>

A common example of this problem may have played a role in the *Wells* case.<sup>158</sup> The plaintiffs' witnesses had an explanation for Katie Wells's birth defects. They examined her carefully, and based on that examination they concluded that her deformities were caused by Ortho-Gynol Spermicidal Jelly. The defense witnesses had no equivalent story to tell. They excluded Ortho-Gynol as a cause for lack of any scientific evidence that the jelly is *capable* of causing birth defects, but they had no alternative explanation for the plaintiff's injuries. This may have placed the defense at a disadvantage, since an expression of ignorance and uncertainty, even if accurate, is often less persuasive than a plausible theory, even a false one.

Ultimately, the judge or jury will have to accept much of what the expert says on faith, or not at all. If an expert issue is in dispute at a trial, it is unrealistic to expect non-experts to be able to judge its merits themselves. Lucid explanations by the witness are useful, but primarily as instruments; the main issue, as one eminent litigator has put it, is "what the jury understands and believes *the expert* knows."<sup>159</sup> In other words, the expert must project authority. To some extent, this can be achieved by presenting her credentials; hence the emphasis on qualifications. The expert's authority may also be enhanced by the manner of her testimony. A witness who looks and sounds the part will be more readily believed than one who challenges the jury's stereotypes; to the extent that this issue is not pre-determined by the choice of the witness, lawyers can influence it by "dressing" their experts in clothes that appear appropriate to their callings.<sup>160</sup> Similarly, a witness who is forceful and unambiguous may sound more authoritative than one who is appropriately tentative.

Finally, "[i]t is imperative that the testimony not look bought."<sup>161</sup> This means that all the work that has gone into wooing the expert,

157. For an interesting description of how the experts on both sides of a products liability case testified in absolute terms on issues that were so "fraught with technological uncertainty" that dogmatic opinions were insupportable see, Piehler et al., *supra* note 99, at 1092.

158. See *supra* notes 21-39 and accompanying text.

159. Belli, *supra* note 115, at 37 (emphasis added).

160. Ostroff, *supra* note 149, at 9.

161. Neil Miller, *Selecting Expert Witnesses with Litigation Savvy*, NAT'L L. J., Oct. 24, 1988, at 44.

preparing her evidence, and shaping her testimony must be hidden from view. Experienced lawyers are completely open on this essential point. They give detailed instructions on how to "make the expert a colleague" and convert her to "an advocate of the client's cause,"<sup>162</sup> and on the same page enjoin their readers: "Do not include informal pleasantries in written communications, for they will be exploited someday to suggest something other than an arm's-length relationship."<sup>163</sup> They advise attorneys to work on the "clothing, stance, and posture"<sup>164</sup> of their expert witnesses, but later add: "At all costs, the expert must be viewed as a professional interested in a factual presentation and not an advocate for one side."<sup>165</sup>

### 3. CROSS-EXAMINATION AND REBUTTAL

"[C]ross-examination," Wigmore tells us, "is the great and permanent contribution of the Anglo-American system of law to improved methods of trial procedure,"<sup>166</sup> a claim that is undoubtedly closer to the mark than his more famous assertion that cross-examination "is beyond any doubt the greatest legal engine ever invented for the discovery of truth."<sup>167</sup> Whatever its value as an instrument of truth, cross-examination of adverse witnesses is certainly the essential feature of common law fact finding, and one of the most misunderstood.

Cross-examination is a peculiar form of inquiry. The goal of is not to reveal information but to advance the cross-examiner's case. To make these points through a hostile witness the cross-examiner must control the questioning tightly, which he can do by asking leading questions to which he already knows the answers. The archetypal cross-examination consists of nothing but leading questions that call for "yes" or "no" answers, a sequence of statements that the witness is required to admit or deny and nothing more; it is not really a process of questioning at all, but an opportunity for the cross-examiner to present evidence in his own words.<sup>168</sup>

An obvious requirement for this form of examination is that the examiner know in advance what the witness will say. With lay witnesses,

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162. Daniels, *supra* note 77, at 66.

163. *Id.*

164. Harold A. Feder, *The Care and Feeding of Experts*, TRIAL, Jun. 1985, 49, 52.

165. *Id.*

166. 5 WIGMORE, *supra* note 4, § 1367, at 32 (Chadbourn rev. 1974).

167. *Id.*

168. For a clear and unpretentious description of the traditional wisdom on the art of cross examination, see THOMAS MAUET, FUNDAMENTALS OF TRIAL TECHNIQUES 242-50 (1980). For a concise restatement of most of these principles in the context of expert testimony, see Harris, *supra* note 65, at 175.

that is usually accomplished by taking a deposition or some other pre-trial statement from the witness. In addition, the cross-examiner will try to find out what the other witnesses in the case are likely to say; he may look into the witness's background and perceptual capacities; and he may gather facts about the conditions of the witness's observations. For a lay witness, however, all of the information gathered in preparation for cross-examination, regardless of its source, is tied directly to the witness and the event: who she is, what she said, what she saw, what happened. This reflects the general limitation of cross-examination to "the subject matter of the direct examination and matters affecting the credibility of the witness."<sup>169</sup>

One method of attacking the credibility of a witness is through character evidence, but this is a restricted form of impeachment. Under the *Federal Rules of Evidence*, for example, a cross-examiner is limited to asking a witness about prior acts of misconduct that the judge deems particularly relevant to truthfulness,<sup>170</sup> and to presenting evidence of the witness's record of criminal convictions for felonies and for misdemeanors involving dishonesty.<sup>171</sup> If the witness denies any misconduct that did not give rise to a criminal conviction, the cross-examiner is stuck with the denial and may not attempt to contradict it with independent evidence,<sup>172</sup> and after a witness is attacked with character evidence the direct examiner may respond with witnesses who offer testimonials to her truthful character.<sup>173</sup> More important, an unsuccessful or ambiguous attack on the character of a witness may backfire and alienate the jury. As a result, character evidence is used sparingly to impeach lay witnesses, and the type that is used most frequently is the most concrete and the least deniable—proof of prior criminal convictions.

A more frequent technique for discrediting a witness is to try to show that she is biased because she has a stake in the outcome of the case, or is closely associated with a party, or dislikes the opposing party, or for any other reason.<sup>174</sup> Other common techniques are to establish that her testimony is inconsistent with earlier statements she made,<sup>175</sup> or internally inconsistent, or inherently implausible. A cross-examiner may

169. See FED. R. EVID. 611(b); MCCORMICK *supra* note 76, §§ 21-22 6; WIGMORE, *supra* note 4, §§ 1885-94 (Chadborn rev. 1976).

170. FED. R. EVID. 608(b).

171. FED. R. EVID. 609. The cross-examiner may also call rebuttal witnesses to testify that the witness in question has a bad reputation for truthfulness, or that in their opinions he is untruthful. FED. R. EVID. 608(a).

172. FED. R. EVID. 608(b); MCCORMICK, *supra* note 76, § 42.

173. FED. R. EVID. 608(a).

174. See MCCORMICK, *supra* note 76, § 40 3A; WIGMORE, *supra* note 4, §§ 943-969 (Chadborn rev. 1970).

175. See MCCORMICK, *supra* note 76, § 34-39 3A; WIGMORE, *supra* note 4, §§ 1017-1046 (Chadborn rev. 1970).

sometimes be able to get a witness to admit that she made a mistake on direct examination. More often, the cross-examination is used to set up this issue for a rebutting witness.<sup>176</sup>

Effective cross-examination is a powerful tool. It does not work wonders; in particular, it is not an effective technique to force a lying witness to admit the truth. But it is an efficient method for bringing out the worst that can be said about a witness and her testimony—the worst, that is, from the point of view of the side that called her. Indeed, the strongest criticism of common law cross-examination is probably that it is too effective, that it can be used too easily to discredit truthful and accurate testimony.<sup>177</sup>

If a lay witness has a criminal record (or some other shameful past), or has an apparent bias for or against one side, or has made a clear mistake in her testimony, or has contradicted herself, she may be effectively impeached. More often, however, at least for non-party lay witnesses, the cross-examiner does not attack the witness's credibility but pursues less ambitious goals: to establish the limits of the witness's testimony, to add qualifications to her statements on direct, and to elicit new evidence that is favorable to the opposition. The cross-examination of an eyewitness to a traffic accident, for example, may consist of a series of relatively unchallenging assertions: what she did not see; any circumstances that made it difficult for her to see the crash; any uncertainty she may have expressed about what she saw; and so forth.

From the point of view of the lawyer, the cross-examination of an expert differs from that of a lay witness in two important respects, which cut in opposite directions. On the one hand, the scope of permissible questioning is broader, which is an advantage to the examiner. On the other hand, it is more difficult for a hostile lawyer to control the examination of an expert, which is a handicap since control is essential for success. From the point of view of the witness there are two further differences. The subject of expert cross-examination is usually closer to the core of the witness's self image and social identity, and the attack is often far more demeaning. (Of the many aspects of our system of using expert evidence that encourage knowledgeable experts to avoid testimony like the plague, the nature of the cross-examination is probably the most influential.)<sup>178</sup> The net result is that the cross-examination of experts

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176. See MCCORMICK, *supra* note 76, § 47. 3A; WIGMORE, *supra* note 4, §§ 1000-1007 (Chadbourn rev. 1970).

177. See, e.g., Marvin E. Frankel, *The Search for Truth: An Umpireal View*, 123 U. PA. L. REV. 1031, 1039 (1975).

178. See, e.g., John Holschuh, *Advocacy in the Preparation and Presentation of Medical Evidence*, 21 OHIO ST. L.J. 160, 165 (1960); Manfred S. Guttmacher, *Problems Faced by the Impartial Expert Witness in Court: The American View*, 34 TEMP. L.Q. 369, 369-70 (1961); F. Hastings Griffin, *Impartial Medical Testimony: A Trial Lawyer*



is more charged, messier, less predictable and less informative than ordinary cross-examination.

The cross-examination of an expert witness may include any move that can be used in the cross-examination of an ordinary witness. In particular, an expert witness may be impeached on all grounds that are available to impeach a non-expert witness—felony convictions, bias, inconsistent statements, errors of fact, etc.—but for experts, two of those grounds have a special bite.

First, since expert witnesses are paid, they may be attacked as biased because of their fee, or because they have been hired repeatedly by the same party, or the same firm, or the same side.

Second, a lay witness is unlikely to have made any statements that might be inconsistent with her testimony except in the context of the case at hand and its surrounding events. An expert witness, however, may be vulnerable because of inconsistencies in statements on the same subject in testimony in unrelated cases, or in speeches, or in published books and articles.<sup>179</sup> In addition, "[o]nce an expert offers his opinion . . . he exposes himself to the kind of inquiry which ordinarily would have no place in the cross-examination of a factual witness . . . . [H]e may be 'subjected to the most rigid cross-examination' concerning his qualifications, and his opinion and its sources."<sup>180</sup> We have already considered one aspect of this extraordinary inquiry, the free use of any evidence concerning the witness's professional character in cross-examination on qualifications.<sup>181</sup> In most cases, however, the major focus of this "most rigid cross-examination" is the expert opinion itself, and the latitude of the cross-examiner in attacking that opinion is as great as the expert's latitude in choosing information to form her opinion in the first place.

An expert witness may be cross-examined about the bases for her opinion whether or not she discussed them on direct.<sup>182</sup> She can be

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*in Favor*, 34 TEMP. L.Q. 402, 412 (1961); William A. Wick & Erle A. Kightlinger, *Impartial Medical Testimony Under the Federal Civil Rules: A Tale of Three Doctors*, 34 INS. COUNS. J. 115, 122-23 (1967).

179. See, e.g., Ostroff, *Experts: A Few Fundamentals*, LITIG., Winter 1982, at 8, 9 (advising cross-examiners to "[o]btain and read every professional publication by each expert. Get . . . each expert's prior deposition and trial testimony."); James M. Powers, *Strategy: Researching the Expert*, FOR DEF., Mar. 1982, at 2 (same with respect to testimony); Melvin M. Belli, Sr. *The Expert Witness*, TRIAL, July 1982, at 34, 36 (same with respect to publications). For prior testimony, this type of research is greatly facilitated by jury verdict reporters that list expert witnesses, such as *Jury Verdicts Weekly*. See *supra* note 18.

180. *Hope v. Arrowhead & Puritas Waters, Inc.*, 344 P.2d 428, 433 (Cal. Ct. App. 1959) (quoting *Forrest v. Fink*, 234 P. 860, 863 (Cal. Ct. App. 1925)); see also *Le Mere v. Goren*, 43 Cal. Rptr. 898, 902 (Cal. Ct. App. 1965).

181. See *supra* notes 146-51 and accompanying text.

182. E.g., FED. R. EVID. 705; CAL. EVID. CODE § 721(a) (Deering 1991).

asked to specify what she considered, and why, and to explain the significance of each item. She can also be required to answer questions about materials she did not consider—tests she did not conduct, data she did not review, etc.—and about the implications of these materials. If she expressed opinions based on hypothetical questions, she can be given a series of revised hypotheticals, with some items of information changed or rearranged. She may be questioned about the reliability of the sources of her information. She may be questioned about the opinions of other experts who have testified, or will testify, or who have no expected role in the case. And last, but most important, she may be cross-examined about the content of "published treatises, periodicals or pamphlets"<sup>183</sup> on the subject of her expert opinion.

The permissible scope of cross-examination on the literature in the expert's field differs from jurisdiction to jurisdiction. The federal rule is liberal: an expert may be questioned about any published material in her field that is "established as a reliable authority by the testimony or admission of the witness or by other expert testimony or by judicial notice."<sup>184</sup> In other words, if the opposing attorney has called or intends to call an expert witness himself he can use any document his own expert will stand by. Some states have more restrictive rules. California, for example, purports to restrict such examination to publications that the expert "referred to, considered, or relied upon" in forming her opinion, or that have been otherwise admitted in evidence.<sup>185</sup> Even this rule, however, leaves a lot of open space for questioning—"referred to" and "considered" are weak restrictions—and, in any event, it can often be circumvented.<sup>186</sup> The net effect is that most expert witnesses (including all experts who testify in jurisdictions that follow the federal rules) may be cross-examined about any published material in their field that they could have used in planning their direct.

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183. FED. R. EVID. 803(18).

184. *Id.*

185. CAL. EVID. CODE § 721(b) (Deering 1991).

186. Consider, for example, a case tried under California Evidence Code § 721(b) in which the cross-examiner wants to use a reasonably short article that appears in a reputable journal. The cross-examiner can first establish from the witness that the journal is a reliable source of information that she sometimes uses, and then present the article to the witness—identifying the author and journal—and ask the witness (in front of the jury) if she had "considered" the article. If the answer is "no," the cross-examiner can ask whether the expert would mind "considering" the article now, before answering some questions about her opinion. The witness will be hard pressed to say "no," and the direct examiner will be equally hard pressed to object, especially if an opposing expert is expected to testify regarding the article.

Alternatively, in a civil case, the cross-examiner can present the article to the witness at a deposition and thereby, in effect, require her to "consider" or "refer" to it before testifying to her opinion at trial. This is a more predictable and orderly method of achieving the desired goal, but it sacrifices the advantage of surprise.

The opportunity to use all this material on cross-examination would not be very troublesome if the mode of questioning resembled scholarly discourse. The examiner would direct the witness's attention to an article or to a passage in a book, ask the witness to explain her opinion in light of this new information, and give the witness enough time to carefully consider her answer—certainly a fair procedure. Needless to say, no competent cross-examiner ever does that. Not only would it violate a cardinal rule of cross-examination (never ask the witness to explain<sup>187</sup>), it would miss the point of the exercise entirely. A lawyer's goals in cross-examination are to discredit the witness and to present evidence in his own voice. To do that with an eyewitness the cross-examiner must frame his questions in terms that describe at least some portion of the events the witness saw. With an expert witness, however, the cross-examiner can roam much farther. He can pick and choose whatever articles and books she wants from the entire library of a profession, show them to the witness and read selections or summarize their conclusions for the jury—but never ask the expert for comments or opinions.

In most jurisdictions, the evidence that a cross-examiner uses in this manner has to be responsive to the direct testimony of the witness, but only in a general way. For example, consider a doctor in a personal injury law suit who testified on direct that she examined and took spinal x-rays of the plaintiff and that she concluded that the plaintiff had suffered a fracture of a vertebra which caused chronic pain. On cross-examination, the doctor might be required to sit by passively while the opposing attorney identifies and reads from medical articles on the incidence of spinal fractures in the general population, or on the difficulty of interpreting x-rays in general or x-rays of the spine in particular, or on the prognosis of spinal injuries, or on the clinical value of self-reports of chronic pain, or on all of these and half a dozen other topics. It is perfectly possible for an attorney to conduct a decent cross-examination of an expert without ever hearing or reading the direct examination, by simply reading out loud excerpts from published studies that seem to support the attorney's position.<sup>188</sup>

This form of cross-examination permits a lawyer to present his own expert evidence without calling a witness, including evidence on issues the expert on the stand never touched. If this is done at length the cross-examination can come to focus on the odd ritual of calling published material "to the attention" of the witness for the sole purpose of presenting it to the jury. But the cross-examiner's position can also be used for

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187. See, e.g., MAUET, *supra* note 168, at 243.

188. For example, I saw this happen during the cross-examination of a defense expert at a lengthy pre-trial hearing in *People v. Moore*, No. 67113, Alameda Co. (Calif.) Super. Ct. (Aug. 1, 1979 through Aug. 22, 1979), *aff'd*, 208 Cal. Rptr. 771 (Cal. Ct. App. 1984).

more directly hostile purposes; in particular, a cross-examiner may aim to confuse. Just as the expert witness on direct may sacrifice accuracy for the sake of clarity, the lawyer on cross can destroy clarity by insisting on an unattainable level of accuracy. He may question the expert separately about individual items in a set of dozens that the expert relied upon, and suggest that each one is inadequate.<sup>189</sup> The lawyer may describe a series of unusual or exceptional cases that seem to contradict the expert's opinion, without letting the expert explain them. Often, the cross-examiner can find a related dispute in the expert's field and discuss it at length; more often the lawyer can seize upon the residual uncertainty that is inherent in most intelligent judgments and magnify it. Sometimes, best of all, the lawyer can find published statements by adequately credentialed authors who argue that no expert in the witness's field can offer evidence of value in the case<sup>190</sup>—an invitation to ignore all expert testimony that becomes increasingly attractive as the evidence becomes increasingly confused.

Cross-examination is not, of course, the end of the game. After it is over the direct examiner may conduct a re-direct examination, and at this stage the witness can comment on the significance, or insignificance, of the matters brought out on cross-examination. This can help, but it will rarely undo the damage of a skillful cross-examination. For one thing, it may come too late, after the lawyer's performance on cross has been absorbed. If the cross-examiner has produced a general sense of confusion and frustration, that feeling will be hard to root out, and a litany of explanations and justifications may make things worse by sounding defensive. In addition, re-direct examination of an expert is a particularly difficult type of examination to conduct. The issues are often hard to anticipate, the witness is likely to be tired or angry or depressed, and time for joint preparation—always the essential ingredient for a successful direct examination of an expert—is limited or nonexistent.

Thus far I have discussed one side of a coin: the special advantages the lawyer has when cross-examining an expert. The advantages on the other side, however, are equally powerful.

First, since the expert has great latitude to determine the content and the organization of her testimony, she can often structure it to thwart the cross-examiner. One common method is to present a small and elusive target: an expert who testifies to conclusions that are based on her

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189. See Poythress, *supra* note 139, at 217-18; *People v. Moore*, *supra* note 188.

190. *E.g.*, JAY ZISKIN, *COPING WITH PSYCHIATRIC AND PSYCHOLOGICAL TESTIMONY* (3d ed. 1981) (psychiatric and psychological assessments are worthless); Michael McCloskey & Howard E. Egeth, *Eyewitness Identification: What Can A Psychologist Tell A Jury?*, 38 *AM. PSYCHOLOGIST* 550 (1983) (expert evidence on eyewitness identification is unreliable).

"experience" and "expertise" is less vulnerable to attack than one who relies on explicit data or specified lines of reasoning.<sup>191</sup>

Second, and more important, successful cross-examination depends on control, and expert witnesses are much harder to control than ordinary witnesses. In part this is due to the experience and preparation of the witnesses. Since experts are more likely than lay witnesses to have spent a great deal of time preparing for cross-examination, they have a better chance of anticipating and thwarting the cross-examiner's intentions. In addition, unlike most lay witnesses, many experts are repeat performers who have learnt from past experiences what questions to expect on cross-examination and how to take advantage of any openings.<sup>192</sup>

The main problem of control, however, concerns the content of expert testimony. Controlling any cross-examination can be difficult, even with the best preparation. Any witness will sometimes be allowed to explain her answers on cross-examination, and most say some things that the cross-examiner does not foresee. An expert witness, however, has more power to frustrate the cross-examiner. Unlike a lay witness, she has greater authority in her own field than the attorney who confronts her or the judge who presides over her testimony. As a result, she will be given more leeway to explain herself or to refuse to answer a question in the terms in which it is asked. We all have a pretty good grasp of the nature of the experiences of ordinary witnesses, or at least we think we do. As a result, we believe we can easily judge whether a question that addresses those experiences—for example, "You saw only one car in the right-hand lane, didn't you?"—can be answered directly and without an explanation. But when a lawyer asks a radiologist a question about her specialty—"Isn't a CT scan the preferred method for diagnosing this condition?"—and the radiologist claims that the question cannot be answered without a good deal of background, or even that it misses the point entirely, how can he dispute her? The very fact that expert testimony is needed demonstrates that these are issues beyond the range of ordinary common sense.

A similar difficulty is likely when an expert gives an unexpected answer. If the lay witness in the previous examples surprises the cross-examiner and says "No, I didn't see any car in that lane," the lawyer will attempt to recover. He may be able to integrate this development into his

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191. See, e.g., Michael M. Nash, *Parameters and Distinctiveness of Psychological Testimony*, 5 PROF. PSYCHOL. 239, 242 (1974) (recommending this method as a maneuver to avoid challenging cross-examination); Poythress, *supra* note 139, at 205 (1977) (describing this tactic).

192. See, e.g., Miller & Kolb, *supra* note 65, at 32 (advising attorneys to choose "an expert who has been cross-examined before [and] may sense traps and be better able to avoid them. . . .").

plan, or side-step it, or at least minimize its importance.<sup>193</sup> He might fail, but at least he will have no difficulty interpreting the answer. But when an expert witness gives an unexpected answer the cross-examiner is often completely lost. The attorney might not understand the answer and is even less likely to understand its implications. If the answer is incomprehensible—if the radiologist responds with three paragraphs of explanations and qualifications—the jury may blame the *lawyer* for confusing things by asking a stupid question to someone who knows more than he does. But that is not the worst risk. What if the radiologist surprises the cross-examiner by simply saying "No"? Whatever they may think of expert witnesses, the jurors are not likely to assume that the lawyer is right and the doctor is wrong. To extricate himself the lawyer must understand the answer; but how can he? In this context, the answer "No" could mean, among other things: (1) the terminology of the question was wrong, (2) there is a newer and better technique than the CT scan, (3) opinions in the field differ, (4) CT scans are not used for *initial* diagnosis, (5) CT scans are almost always used in *conjunction* with other diagnostic techniques, (6) the expert has a peculiar point of view, (7) the expert is ignorant, or (8) the expert is lying.

There is an obvious solution to this problem, the one that is used in ordinary discussions and consultations with experts: ask the expert to explain herself. But this is a fatal trap. It destroys any vestiges of control the cross-examiner may hope to exercise, it gives the witness an opportunity to bolster her opinions, and it ratifies the authority of the witness. Unfortunately for lawyers, it is often a hard trap to avoid. The impulse to ask for an explanation is difficult to resist, the need for clarification may make the absence of a request conspicuous and damning, and an explanation may be offered and admitted in evidence regardless of what the lawyer does. The safest way to avoid this danger is to drop the area of questioning entirely. Otherwise the cross-examiner risks repeated contradictions from the expert, and, ultimately, a lengthy explanation of the lawyer's own understandable ignorance of the expert's field. If the issue is important, this forces the lawyer to make a nasty choice: accept a cross-examination that has come to naught, or risk having it turned against him. As the laments of trial lawyers demonstrate, each of these outcomes is common.<sup>194</sup>

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193. If the witness has given an inconsistent statement in a deposition, or otherwise, the lawyer can, of course, use that for impeachment.

194. See, e.g., FRANCIS L. WELLMAN, *THE ART OF CROSS-EXAMINATION* 95 (Collier Books 1979) (4th ed. 1936) ("Lengthy cross examinations [of experts] . . . are usually disastrous and should rarely be attempted."); David B. Baum, *Taking on the Opposing Expert*, *TRIAL*, Apr. 1984, at 74 ("Many trial lawyers, in awe of opposing experts, conduct cross-examinations by making the testimony far worse for their clients . . ."); Thomas M. Crisham, *Trial By Expert—Yours and Theirs, Experts in*

The problem the cross-examiner faces is, to a great extent, simply a matter of ignorance; once he is thrown off course, he finds himself in unknown territory. Like most problems of this sort, it can be solved by knowledge. To some extent, it will help the lawyer to have a friendly expert at his elbow. In the heat of oral examination, however, that is an imperfect solution. The only true cure, as experienced practitioners know, is for the lawyer himself to be, or to become, an expert in the field of the witness.<sup>195</sup> If the cross-examiner in our previous example knew a great deal about radiology, he might be able to bounce back and say, "Perhaps I wasn't sufficiently clear, Doctor. Isn't it true that a CT scan is the preferred method of diagnosis for this condition *if, as in this case, a spinal x-ray was inconclusive?*" A cross-examiner who can do this loses no control and yields no authority to the witness, and might make the witness look evasive to boot.

This is a difficult and expensive solution. For many lawyers and for many types of expertise it is, as a practical matter, impossible, and even when it is possible, it is rarely achieved. It is also an odd and highly inefficient way to obtain information—to train lawyers as lawyer-experts in medicine and engineering and statistics so they can effectively cross-examine witness-experts. Worse, it gives the lawyer-expert the power of knowledge without any accompanying responsibility. The lawyer does not testify and he is not sworn to tell the truth; he is, in fact, forbidden to discuss his personal views or knowledge.<sup>196</sup> His role is to help his client, regardless of his own opinions, not to be true to science. This means that he may—indeed, that he *should*—do things as a lawyer that he would never do as an expert: confuse issues that he himself understands; advance arguments that he does not believe; attack the witness, or the witness's opinions, or discipline, on grounds that neither the lawyer nor any other knowledgeable expert would credit.

The net effect of these cross currents is that the cross-examination of an expert witness is a high risk event for both sides. Either participant can get badly hurt, often in unforeseen ways—a fact that may explain why lawyers and experts alike complain about the difficulty and the unpleasantness of the process. One experienced trial lawyer gives an inadvertent-

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*Construction Cases*, 54 DEF. COUNS. J. 207, 220 (1987).

195. See, e.g., Fitz-Gerald Ames, Sr., *Modern Techniques in the Preparation and Trial of a Medical Malpractice Suit*, 12 VAND. L. REV. 649, 652-53 (1959) ("It is no exaggeration to state that the trial lawyer in a malpractice suit should know as much if not more than the doctor he is cross-examining. . . ."); Belli, *supra* note 179, at 35 ("[T]rial counsel must be almost as much, if not more of an expert as the expert under [cross-examination]. Only then will counsel be able to detect inconsistencies and implausibilities in the expert's theory.").

196. See MODEL RULES OF PROFESSIONAL CONDUCT Rules 3.4(e), 3.7 (1983); MODEL CODE OF PROFESSIONAL RESPONSIBILITY DR 5-101(B), 5-102, and 7-106(C) (1981).

ly telling description of this conflict: "The expert will almost always know more about his field [the main issue of importance to the cross-examiner] than will trial counsel. Collateral and ad hominem attacks [the type most likely to wound the witness] may be the only available means of cross-examination."<sup>197</sup> The best performers in this slippery arena are two somewhat unattractive characters. First, there is the *professional witness*. This is an expert who has become experienced enough in the role of witness to be comfortable, to have perfected her performance. She knows how to use her position and authority to maximum effect; she is not upset by demeaning cross-examination (like the lawyers, she views testimony as a game) and, therefore, she is hard to discredit. Second, there is the *lawyer-expert*. This is a lawyer who is highly knowledgeable in the field at issue; he may even be a qualified expert—a physician or an engineer. As a lawyer, however, he uses his expertise not to instruct, but to manipulate other experts and to undercut them.

Cross-examination is not the only way to undercut an expert witness; the opposition can also rebut with its own expert. In California civil trials, for example, this happens more often than not.<sup>198</sup> The opposing expert, moreover, is likely to be another carefully chosen and well prepared partisan; she might be a professional testifier with a wealth of experience in the role. The result is the infamous battle of experts with all the predictable problems of evaluation. Most of the disturbing characteristics of this battle are direct consequences of the initial processes of partisan selection and preparation of experts: disagreements are all but inevitable, areas of agreement are under-emphasized or ignored, disputes in the field are magnified, and the consensus of experts, if any, is obscured.

In addition, the mode and the timing of this confrontation make matters even murkier. The plaintiff's expert is called at some point during the plaintiff's case, gives her direct testimony, and is cross-examined by the defense attorney. Sometime later—perhaps many days later, after a mass of testimony on other issues—the defendant calls another expert who says the opposite of the first, and who in turn is subject to the chancy ritual of cross-examination. This procedure might as well have been designed to confuse, to leave the audience staring at an unresolved and apparently unresolvable conflict. It facilitates one of the

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197. Ostroff, *supra* note 179, at 9.

198. See *supra* text accompanying notes 18-20. The comparable rate for lay witnesses is unknown, but it is probably lower—at least for non-party witnesses—since lawyers have so much less latitude in choosing the opposing witnesses.



common uses of a rebutting expert—to neutralize the first expert—but otherwise contributes nothing to the case.<sup>199</sup>

#### 4. INCENTIVES FOR HONESTY AND ACCURACY

To some extent honesty in testimony is enforced directly by the process of cross-examination and rebuttal. Nobody likes to be caught lying, regardless of the consequences. The major formal guarantee of candor, however, is the oath, "a solemn appeal to the Deity, made binding on the conscience by a penalty for perjury."<sup>200</sup> This might be a overly cynical view of the function of a testimonial oath—it also has the salutary effect of impressing upon the witness the importance and solemnity of the proceeding—but it captures the essence of the ceremony; witnesses are required to swear in order to make lying a crime.

Needless to say, an oath is no guarantee of truth. Lying is not the only way that a witness can deceive; it is probably not even the major way. Witnesses frequently make mistakes, and they may color or shade their testimony to a considerable extent without actually committing perjury. Nor does the oath impose a duty to provide *complete* evidence. A witness may swear to tell "the whole truth," but all she is actually obligated to do is give an honest answer to each question she is asked. If she does not, she may be punished—if she can be convicted. But that is not easy. Perjury requires a specific intent to deceive, which makes it a notoriously difficult crime to prove, and even when it is suspected it often has a low claim on prosecutorial resources. This is no accident; it reflects a diffuse legal judgment that it is better to let some liars get away with it than to discourage honest testimony by making the threat of prosecution for perjury too menacing.<sup>201</sup>

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199. See, e.g., Webster A. Melcher, *Developing and Regulating Expert Testimony*, 24 CASE & COM. 381 (1917); Dennis R. Suplee & Margaret S. Woodruff, *Direct Examination of Experts*, PRAC. LAW., Dec. 1987, at 53, 54.

200. AMBROSE BIERCE, *THE DEVIL'S DICTIONARY* 232 (2d printing 1926).

201. See generally Comment, *Perjury: The Forgotten Offense*, 65 J. CRIM. L. & CRIMINOLOGY 361 (1974). Cf. RESTATEMENT OF TORTS § 588 (1938); Comment, *The Rule Against Civil Actions for Perjury In Administrative Proceedings: A Hobgoblin of Little Minds*, 131 U. PA. L. REV. 1209, 1211 (1983).

A recent scandal illustrates the common professional view of this issue. In late 1988, it was discovered that a number of "jail-house informants" in Los Angeles were systematically fabricating testimony for the prosecution. In the aftermath, the defense bar accused prosecutors generally of failing to charge or prosecute government witnesses who commit perjury. The prosecutors' main defense was telling: "False testimony is common by witnesses on both sides, and probably even more by civil litigants," said a prominent Southern California prosecutor, "[b]ut provable perjury is not." Mark Thompson, *The Truth About Lies*, 9 CAL. LAW., Feb. 1989, at 15, 16.

Despite these limitations, the requirement of an oath undoubtedly makes witnesses more honest. Most ordinary witnesses face at least a remote possibility of a perjury conviction if they lie, and many have exaggerated fears of this danger. More important, quite apart from the threat of prosecution, many people—even those who lie readily in other contexts—are reluctant to lie under oath because it offends their values or is inconsistent with their self-image. These pressures, however, will not operate if prosecution for perjury is not at least perceived as a theoretical option, and if the act of perjury is not reasonably well defined. For expert opinion testimony, both requirements are in doubt.

If a lay witness testifies that she met her brother in Cincinnati at a time when police records show that the brother was in jail in Cleveland, she may have committed actionable perjury. She has misrepresented a material fact in the case, although the tricky issue of wilfulness may still be open. An expert who testifies about observations is in a similar position, and she faces a similar risk if she lies about the results of a test, alters data, etc. But how can an expert be charged with perjury for testifying, for example, that it is *her opinion* that the deceased died of exposure? The statement is not, strictly speaking, about the factual issue at stake—cause of death—but rather about the witness's state of mind, her professional judgment. Quite aside from the question of wilfulness, how can we know that this sort of statement is a misrepresentation? It is possible, of course, to lie about one's opinions—we all do it on occasion, particularly with regard to opinions about relatives and acquaintances—but it is a slippery concept. Opinions are often changeable, contradictory, ambiguous, and uncertain; sometimes our best evidence of our own opinions is what we say to others. Even when a lie of this sort is unambiguous to the person who uttered it, it is all but impossible for anyone else to prove it since there is rarely any external evidence to contradict the speaker's statement. Even a direct contradiction between two statements of opinion under oath does not necessarily prove perjury; the witness might simply have changed her mind.<sup>202</sup>

And how much difference should it make if an expert witness does lie about her opinion? An eyewitness who lies destroys an irreplaceable

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202. See, e.g., Edward J. McDermott, *Needed Reform in the Law of Expert Testimony*, 1 J. CRIM. L. & CRIMINOLOGY 698 (1911) (complaining that perjury prosecutions against expert witnesses are all but impossible because "[a] charlatan or a corrupt expert can always say that he has truthfully given his opinion . . ."); Comment, *Impartial Medical Testimony Plans*, 55 NW. U. L. REV. 700, 702 (1961) (arguing that it is "practically impossible" to convict a medical opinion witness of perjury" even in those relatively few instances where his testimony reflects a complete disregard of the truth.") In *State v. Sullivan*, 130 A.2d 610 (N.J. 1957), the New Jersey Supreme Court, by a four to three vote, did sustain a perjury conviction of a doctor who gave supposedly opposite opinions on the same issue in successive trials. The elaborate justification for the court's holding, and the vehemence of the dissent, illustrate why such cases are rare.

source of information, but a dishonest expert merely offers an opinion that other experts can dispute or disprove. In other settings, where scientific arguments are debated primarily on their intellectual merit, people frequently take positions they do not necessarily believe. They may play devil's advocate, for example. Sometimes they are successful in this role, and convince others and themselves. In legal proceedings (unfortunately, but perhaps inevitably) decisions on expert evidence depend more on authority and less on analysis. Even here, however, a lying expert has less capacity to distort than a dishonest lay witness, since other similarly qualified witnesses are more readily available to contradict her. She can still cause mischief, particularly if the accurate statement on the other side is important to the case, but the harm is more easily counteracted.

My point is not that honesty in expert testimony is unimportant, but that it is not the main dimension for judgment. The worst that can be said about an expert opinion is not that it is a lie—that criticism is often beside the point—but that it is unreasonable, that no competent expert in the field would hold it. Correspondingly, the most dangerous expert witness is not one who lies (although she may do that too), but one who is ignorant or irresponsible.

The major protection against ignorance or irresponsibility in expert testimony is not anything about the legal system or the sanctions it might impose; it is the expert's relationship to her field and to the substance of her testimony. Here again, we fail to make use of a special feature of expert evidence. The only people who can evaluate the accuracy of the testimony of an eyewitness on the basis of their personal knowledge are other eyewitnesses to the same event. The possibility of this sort of evaluation has limited impact on the honesty of the testimony of eyewitnesses: often there will have been no other eyewitnesses; if there were other witnesses they may not have seen the same view of the event; and if they did, the witness in question may have no reason to care what they think of her testimony one way or the other. But there are always other experts who can evaluate the testimony of an expert witness, and most expert witnesses care quite a bit what their professional peers think of their professional opinions.

Unfortunately, what an expert says in court is generally invisible and inaudible in her own professional world. If expert witnesses were accountable to their colleagues, even informally, they might fear the consequences of irresponsible testimony far more than they do.<sup>203</sup> This

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203. Some courts have become aware of this problem, but are powerless to change it. For example:

[M]any experts are members of the academic community . . . . We know from our judicial experience that many such able persons present studies and express opinions that they might not be willing to express in an article

sort of exposure would be an incentive to be careful as well as honest. A lay witness with an imperfect view can do nothing to improve her observations—they are a thing of the past—but an expert who has not done her homework can go back and do it right.

#### D. Evaluating Evidence

Judges sometimes complain that jurors attribute a "mystic infallibility" to expert evidence.<sup>204</sup> A 1974 national survey of 1,363 judges and lawyers suggests that a weaker version of this belief is widespread: 70% of the respondents thought that juries find scientific evidence more credible than other kinds, and 75% said that judges have the same reaction.<sup>205</sup> The limited experimental data on jury behavior do not support this point of view. A number of studies have found that expert testimony has some impact on jury decisionmaking but that the effects are moderate by comparison to other types of evidence.<sup>206</sup> The generalizeability of these findings may be limited, however, since the experimental studies all used criminal cases, and most of them examined the effects of a narrow range of expertise—polygraph evidence or other expert evidence that bears on the credibility of witnesses. (Two studies, for example, found that expert testimony on the value of eyewitness evidence had some impact on juries, but not much.<sup>207</sup>) The results of post-trial interviews with actual jurors in several cases are consistent with these sketchy data: the jurors do not seem to have accepted expert

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submitted to a refereed journal in their discipline or in other contexts subject to peer review.

*In re* Air Crash Disaster at New Orleans, Louisiana, 795 F.2d 1230, 1234 (5th Cir. 1986) (Higginbotham, J.).

204. *United States v. Addison*, 498 F.2d 741, 744 (D.C. Cir. 1974). *See also*, e.g., *Reed v. State*, 391 A.2d 364, 370 (Md. 1978).

205. SAKS & VAN DUIZEND, *supra* note 16, at 5-6 (citing O. Schroeder, *The Forensic Sciences in American Criminal Justice: A Legal Study Concerning the Forensic Science Personnel* (Forensic Science Foundation, undated)).

206. *See* studies summarized in Vidmar, *Assessing the Impact of Statistical Evidence, A Social Science Perspective*, in PANEL ON STATISTICAL ASSESSMENTS AS EVIDENCE IN THE COURTS (Nat'l Research Council), *THE EVOLVING ROLE OF STATISTICAL ASSESSMENTS AS EVIDENCE IN THE COURTS* (Stephen E. Feinberg ed. 1989), at 279, 296-97.

207. Elizabeth F. Loftus, *Impact of Expert Psychological Testimony on the Unreliability of Eyewitness Identification*, 65 J. APPLIED PSYCHOLOGY 9 (1980); A. Cavoukian, *The Influence of Eyewitness Identification Evidence* (1980) (unpublished doctoral thesis, University of Toronto (1980)).

testimony uncritically.<sup>208</sup> And, of course, in the numerous cases in which expert testimony is in conflict uncritical acceptance is impossible; the evidence must be judged.

How good are judges and juries at this task? As a starting point, it's probably useful to ask a more basic question: how well do judges and juries evaluate disputed evidence, in general? In most cases there is simply no way to tell. When a jury decides the color of the traffic light at the time of an accident, there is no one who would predictably do better, which is a comfort of sorts.<sup>209</sup> In some cases there is someone who *knows* better—if one witness testified that it was green and another that it was red, one of them is right—but there is no reliable way to tell who it is. In this situation, where the evidence is in direct conflict, decision making may be no more inaccurate than when the evidence is simply incomplete, but it is more unpleasant. It is more troubling to realize that one of the witnesses is telling the truth but that we do not know who it is than to judge as best we can when none of them really knows what happened.

Judges and lawyers complain a lot about the difficulty of evaluating expert testimony, but there is no particular reason to think that jurors or judges are less accurate at this task than at resolving disputes based on lay evidence.<sup>210</sup> Certainly it is hard for lay people to resolve disputes

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208. See, e.g., Diane L. Bridgeman & David Marlowe, *Jury Decision Making: An Empirical Study Based on Actual Felony Trials*, 64 J. APPLIED PSYCH. 91 (1979); ARTHUR D. AUSTIN, *COMPLEX LITIGATION CONFRONTS THE JURY SYSTEM: A CASE STUDY* (1984).

209. No one would do better, that is, at evaluating the evidence that is before the jury. Other methods of fact finding might be more accurate because they do a better job of obtaining and presenting evidence.

210. The only empirical data that address this issue, even remotely, focus on the question of jury competence, and they suggest that American juries are not much different from judges in this respect. In their survey of over 3,000 felony jury trials in the 1950s, Kalven and Zeisel found that the judge agreed with the jury's verdict 78% of the time, and that disagreements were not associated with apparent evidentiary difficulty, or with the use of expert witnesses. HARRY KALVEN, JR. & HANS ZEISEL, *THE AMERICAN JURY* (1966). In general, the disagreements between judge and jury seemed to be based more on differences in the legal standards they applied than on differences in the interpretation of evidence, expert or lay, a finding confirmed by Martha A. Myers, *Rules Departures and Making Law: Juries and Their Verdicts*, 13 LAW. & SOC. REV. 781 (1979). See generally V. HANS & N. VIDMAR, *JUDGING THE JURY* 131-64 (1986). These data, unfortunately, deal solely with criminal cases, and—more important—they are restricted to judges' and juries' reactions to cases that were tried to juries. They do not address a possibility that the *development* of the evidence might be more complete and informative in non-jury trials. See, e.g., SAKS & VAN DUIZEND, *supra* note 16, at 35-36 (describing a judge's active role in developing expert evidence in a bench trial). And of course, as the *Wells* case demonstrates, agreement with judges is hardly an absolute standard for evaluating the competence of juries. See *supra* text accompanying notes 32-39. See also, e.g., PANEL ON STATISTICAL ASSESSMENTS, *supra* note 207, at 72-83 (reviewing case

between experts, but what data there are on the point—for example, studies on the evaluation of eyewitness testimony<sup>211</sup>—suggest that we are not very good at judging conflicts between ordinary witnesses either. Still, there are grounds for special complaints about expert testimony. *First*, many disputes over expert evidence are unnecessary; often they are generated by the legal system itself. *Second*, while we may be just as likely to make mistakes in judging lay witnesses, disputes between experts are more troubling and more unpleasant. *Third*, while there is no foolproof procedure for resolving evidentiary disputes of any sort, when they concern expert issues it is apparent that we could do better than our current practice.

The first of these problems is caused by the processes of selection, preparation and presentation that we have already discussed. The lawyers on each side of a case have both motive and opportunity to choose expert witnesses with strongly partisan views; pre-trial preparation further polarizes these witnesses; and the presentation of adversarial expert testimony accentuates their differences.

The second problem is a nearly inevitable consequence of the first. Differences in expert opinions are usually caused, in the final analysis, by incomplete information. If we had direct evidence on the future consequences of an injury, or on the speed of a car at the time of an accident, we would have no use for the opinions, respectively, of physicians and of accident reconstruction specialists. In court, however, this final analysis is too remote to be visible. Because experts are called upon to draw inferences that are beyond the competence of ordinary people, contradictory expert opinions do not sound like competing arguments based on incomplete information. After all, the jury, by assumption, is incompetent to evaluate such arguments. Instead, a dispute between expert witnesses resembles a head-on conflict in direct evidence, the type of factual issue that is most unpleasant to adjudicate, since it turns on an assessment of credibility rather than on inferential reasoning. Expert testimony is often confusing, which makes matters worse, but even if the testimony is clear these conflicts produce a feeling of betrayal; experts are supposed to help us, not give us new headaches.

Finally, it is not true that whatever a judge or jury does with expert evidence is as good as what anybody else could do. An expert judge, or a jury of experts, would understand the issues better, would have less difficulty following the testimony, and would be far less likely to be

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studies and criticizing the evaluation of expert statistical evidence in both jury and bench trials).

211. See, e.g., EYEWITNESS TESTIMONY: PSYCHOLOGICAL PERSPECTIVES (Gary L. Wells & Elizabeth F. Loftus eds., 1984); ELIZABETH F. LOFTUS, EYEWITNESS TESTIMONY (1979); HUGO MUNSTENBERG, ON THE WITNESS STAND: ESSAYS ON PSYCHOLOGY AND CRIME 36-69 (1908).

misled by incompetent or irresponsible witnesses or by clever lawyers. In a sense, everybody knows this. We know that the problem with expert testimony is not so much the experts themselves and the limitations of their knowledge, but the way the legal system uses them. The judge who thinks and talks about medical *witnesses* as whores will not hesitate to go to a medical *doctor* when he has pneumonia. Why should expertise be so extremely problematic in a legal context? Expert evidence is based, to a greater or lesser extent, on systematic observations of replicable phenomena that are subject to independent study by trained observers. Evidence of this sort does not always provide clear answers to our questions, and it is often subject to extreme vagaries of interpretation, but its virtues are significant. All things considered, we ought to be able to do a better job with expert evidence than with the major competing type, unsystematic non-replicable evidence about unique historical events. As things stand, given the sequence of problems from selection through evaluation, we probably do worse.

The problem at the stage of evaluation is caused in part by the essential paradox in the use of expert evidence. We call expert witnesses to testify about matters that are beyond the ordinary understanding of lay people (that is both the major practical justification and a formal legal requirement for expert testimony), and then we ask lay judges and jurors to judge their testimony. This is a very general problem. We frequently seek expert advice in making a wide range of personal decisions: whether to have a medical operation, what type of house to build, where to invest our money, etc. Whenever we do this, we must figure out how to make the best use of expert opinions we cannot entirely understand. In litigation, of course, the difficulty is particularly great, but the basic nature of the problem is always the same, and it has no entirely satisfactory solution. The best that lay people can do is divide the task into four sequential steps: (1) identify the best available experts; (2) learn from them as much as possible about the expert issues at stake; (3) determine which of these issues are undisputed among the best experts; (4) resolve as well as possible any remaining disputes.

Common law courts are at an extreme disadvantage in performing the first of these tasks, obtaining the best available experts. Courts do not choose expert witnesses themselves, and the process by which experts are chosen by the parties produces an uncommonly partisan selection.<sup>212</sup> The most that judges and juries can do is try to evaluate the credentials of the experts who are presented to them. Credentials, however, are an imperfect proxy for knowledge under the best of circumstances, and far

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212. I am ignoring, for the moment, the use of court appointed experts under existing procedures. See, e.g., FED. R. EVID. 706. As we will see, *infra* notes 229-47 and accompanying text, such experts play a negligible role in American litigation.

worse in court where they become yet another factor for lawyers to manipulate.<sup>213</sup>

The best method for a lay person to identify the most useful available expert for a particular purpose is to solicit the opinions of other experts in the field. This is the method that is commonly used by careful decision makers in other settings. An intelligent patient who needs a heart surgeon will not try to evaluate the formal credentials of various candidates, but will ask other doctors to name the best one available. If the decision is important enough, he might go through a multi-stage process: first, he will identify a set of informant-doctors who know a great deal about the specialty; from them he will compile a list of the best surgeons; finally, he will determine which of the doctors on the list can do the operation on agreeable terms. Courts, unfortunately, rarely if ever use any procedure as sensible as this.

The second task, learning to understand the expert issues at stake, seems to be the key to the problem. Indeed, experts who have had a taste of litigation frequently argue that the difficulties they encountered demonstrate that lawyers and judges (and perhaps jurors) need to learn more about statistics, or psychology, or economics, or whatever.<sup>214</sup> Needless to say, this cannot be a general solution to the problem of evaluating expert evidence. Quite the opposite: the inevitable lack of detailed understanding of these fields by lawyers and judges and jurors is the problem that creates the need for expert evidence in the first place.

Still, learning some of what the experts know is useful in evaluating their advice. The doctor who explains to her patient why she is recommending surgery is more helpful than the one who explains nothing, especially for a patient who must choose between competing recommendations. Here again, judges and jurors are handicapped: under present procedures, expert testimony in court is an unlikely method of instruction in any complex discipline, to say the least. For example, in a set of interviews with trial-court judges, the factor that was mentioned most frequently as a cause of jurors' problems with complex cases was their difficulty understanding expert testimony.<sup>215</sup>

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213. See *supra* text following note 65 and notes 138-51 and accompanying text.

214. See, e.g., PANEL ON STATISTICAL ASSESSMENTS AS EVIDENCE IN THE COURTS, *supra* note 207, at 181-83; Charles P. McCreary, *Training Psychology and Law Students to Work Together*, 8 PROF. PSYCHOL. 103 (1977); Poythress, *Mental Health Expert Testimony: Current Problems*, 5 J. PSYCHIATRY & L. 201, 220-22 (1977).

215. Jane Goodman et al., *What Confuses Jurors in Complex Cases*, TRIAL, Nov. 1985, at 65 (1985). Unfortunately, the authors do not identify the group of judges they interviewed, or give a precise breakdown of their responses.

The few empirical studies that are available support this conclusion. Thompson and Schumann found that a majority of college-student subjects fell prey to misleading descriptions of statistical evidence in a simulated criminal case. William C. Thompson & Edward L. Schumann, *Interpretation of Statistical Evidence in Criminal Trials: The*



The difficulty of learning from expert testimony also affects the third evaluation task, identifying uncontroversial propositions. This is one of the most useful functions of expert evidence, and ought to be the most predictable; if nothing else, a court should be able to find out what competent experts agree about. Unfortunately, that is not so. The process of selecting expert witnesses overemphasizes disputes; the process of preparing evidence helps perpetuate them; and, if there are any surviving issues on which the opposing experts might agree, the process of presenting expert testimony reduces the chance that these areas of agreement will be detected. The general difficulty of understanding expert testimony gets in the way (it is hard to tell if people are agreeing if we do not know what they are saying) and the absence of any direct discourse between opposing experts limits their opportunities to agree in any obvious visible manner. This does more than generate unfocused confusion. Since conflict between opposing experts is the rule, incomprehensible evidence will be interpreted accordingly. As a result, adversarial expert testimony is not only a poor vehicle for instructing lay people on issues on which experts agree, but it also creates an aura of dispute where none exists.

The *Wells* case is a good example of this danger,<sup>216</sup> but it is certainly not the only one. By 1960, medical doctors did not seriously dispute that a single traumatic blow could not cause a malignant tumor, and yet this theory still received respectful hearings in court.<sup>217</sup> Similarly, psychiatrists today have overwhelmingly rejected the notion that they can predict future violence—let alone do so on the basis of hypotheti-

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*Prosecutor's Fallacy and the Defense Attorney's Fallacy*, 11 LAW & HUM. BEHAV. 167 (1987). This finding is consistent with a large body of research that shows that people in general are prone to errors in inferential reasoning from statistical information. See generally RICHARD E. NISBETT & LEE ROSS, HUMAN INFERENCE: STRATEGIES AND SHORTCOMINGS OF SOCIAL JUDGMENT (1980). In addition, several case studies that include post-trial interviews with jurors also found low levels of comprehension of expert evidence: AUSTIN, *supra* note 208 (interviews with jurors in the trial and re-trial of an anti-trust case); MOLLY SELVIN & LARRY PICUS, THE DEBATE OVER JURY PERFORMANCE (1987) (interviews with jurors in an asbestos case); Paul Rosenthal, *Nature of Jury Response to the Expert Witness*, 28 J. FORENSIC SCI. 528 (1983) (interviews with jurors in arson case). Unfortunately, there seem to be no studies of jury comprehension of the most common types of expert evidence, in particular medical testimony.

216. See *supra* notes 21-39 and accompanying text.

217. Compare THOMAS ARTHUR GONZALES ET AL., LEGAL MEDICINE: PATHOLOGY AND TOXICOLOGY, (Appleton-Century-Crofts, Inc., 2d ed. 1954) (1937) (single physical trauma never convincingly shown to be cause of tumor) and James Ewing, *Modern Attitude Toward Traumatic Cancer*, 19 ARCHIVES PATHOLOGY 690 (1935)(same) with *Peterson v. Kansas City Public Service Co.*, 259 S.W.2d 789 (Mo. 1953) (medical testimony that cancer can develop from trauma establishes fact question for jury); and *Daly v. Bergstedt*, 126 N.W. 2d 242 (Minn. 1964) (same). See also Griffen, *supra* note 8 at 409-10.

cal questions—but psychiatric testimony to the contrary is regularly heard in court, and is a basis of many death sentences.<sup>218</sup> It is common to point out how the structure of legal proceedings can distort the jury's view of a field of knowledge. The universe of psychiatrists may consist of a hundred experts, of whom one believes in predictions of dangerousness and ninety-nine do not, but the list of witnesses in a particular case will probably include one expert on each side of this fictitious divide. It is less commonly noted that the one expert who will testify to the discredited point of view is probably in greater demand as a witness, more experienced in court, and more effective.<sup>219</sup>

This brings us to the last step in the process, resolving disputes between experts. Inevitably, the ineffectiveness of current practice at the first three steps of evaluating expert evidence—choosing reliable experts, learning the expert issues, and identifying uncontroversial propositions—shifts the weight of evaluation to this last task. This is unfortunate. Resolving differences between experts is notoriously difficult even for other experts; to expect lay people to do it is unrealistic under the best of circumstances, not to mention in court. The results are predictable. It is no secret that judges and juries dislike this job, and that it poisons their view of expert witnesses. Most critical descriptions of expert testimony focus their fire on the wasteful, indecipherable, and unseemly courtroom battle of experts. What is less apparent is the sequence of failures at earlier and easier tasks that leads to this impenetrable standoff.

What do jurors and judges do when faced with this seemingly inevitable confrontation? How do they reach a verdict on damages, for example, when one doctor tells them that the plaintiff's health and life expectancy have both been limited by the loss of her spleen, and another doctor testifies that the removal of a spleen has no likely adverse consequences?<sup>220</sup> How do they determine the penalty when one psychiatrist testifies that in her professional opinion a capital defendant is an extreme and incurable sociopath who will predictably commit future acts of violence if given any chance, and an opposing psychiatrist testifies that such predictions are unscientific and valueless?

The late Professor Irving Younger, an experienced litigator and former judge, was probably the most articulate academic exponent of adversarial fact finding in recent years. He was also a great fan of juries:

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218. See *Barefoot v. Estelle*, 463 U.S. 880, 916 (1983) (Blackmun, J., dissenting).

219. Thus, for example, by 1980 Dr. James Grigson, the notorious "Dr. Death," had testified to the future dangerousness of the defendant in over 70 capital trials, all but one of which resulted in death sentences. Charles P. Ewing, "Dr. Death" and the Case for an Ethical Ban on Psychiatric and Psychological Predictions of Dangerousness in Capital Sentencing Proceedings, 8 AM. J.L. & MED. 407, 410 (1983).

220. See Irving Younger, *A Practical Approach to the Use of Expert Testimony*, 31 CLEV. ST. L. REV. 1, 2 (1982).

"In my experience, the jury does a very good job of assessing the credibility of an expert. I have a religious faith in jurors . . . ." <sup>221</sup> Younger's description of how jurors do this job, however, may not inspire everybody. <sup>222</sup> First, jurors pay attention to the experts' credentials, so lawyers must "work very hard on your qualifications." Second, jurors are likely to reject expert testimony that conflicts with their "intuition or common sense or lay view of how the world works." Therefore, the lawyer presenting expert testimony must learn this point of view and teach it to the expert witnesses: "You read popular magazines, popular novels and talk to the man on the street and do your best to become an expert on the man on the street's view of things." Third, "do not neglect . . . the expert's personality, his presence, his appearance . . . ." For example, in a 1960 case Professor Younger successfully impeached a psychiatrist who happened to look like Richard Nixon by comparing the unfortunate doctor to his own expert, and asking the jury, "which one would you buy a used car from?" Last, "the single most important factor" in the jury's assessment of an expert witness is their view of the credibility of the lawyer who calls her.

This is an unusual religion. Professor Younger gives excellent advice to practicing lawyers, but virtuosity in trial practice rather than accurate fact-finding is the central tenet of his faith. Other experienced lawyers offer similar views of jurors' capacities to evaluate expert evidence, but with less enthusiasm. Melvin Belli, for example, has written that since jurors are "ill equipped to measure medical skill and knowledge," their "decision to believe one doctor over another is likely to be predicated on nothing more substantial than courtroom manner, personality or forensic ability." <sup>223</sup> They might choose to believe the expert who has the best credentials, or the one who seems most fair minded, or the one who most appeals to them as a person, or the one who comes closest to their image of the appropriate role—the precise engineer, the avuncular physician, etc. <sup>224</sup> One way or another, jurors are likely, as Goodman, Greene and Loftus found in post-deliberation interviews, to

221. *Id.* at 39.

222. *Id.* at 40-42.

223. Melvin M. Belli, *Forensic Medical Experts, Obligations and Responsibilities*, 8 MED. SCI. & L. 15, 19 (1968).

224. A good example of this is documented in Paul Rosenthal, *Nature of Jury Response to the Expert Witness*, 28 J. FORENSIC SCI. 528 (1983). Rosenthal interviewed jurors in an arson case that turned in part on competing claims by experts about the validity of voiceprint identification. He concluded that the jury "comprehended very little about the technical aspects of voiceprint identification." Instead, they focused on the personal characteristics of the witnesses, believed the testimony of the "real scientist"—who was articulate, short haired, and well dressed—and disregarded the testimony of some very well qualified experts who evoked the image of "hippies." *See also* AUSTIN, *supra* note 208.

make "personal judgments about the experts and *not* about the information relayed."<sup>225</sup> Judges occasionally criticize this method, and argue that decisions on expert evidence "should not turn simply on the external indicia of 'credibility'—as if some ordinary fact like the date of a telephone conversation were involved—but on analysis . . . ."<sup>226</sup> It is possible that judges sometimes follow this advice themselves, but sometimes (as in the *Wells* case) they clearly do not.

Judging the messenger rather than the message is an unsatisfactory mode of evaluating expert information, but it does at least take some of the evidence into account, however poorly. Other available methods do not. For instance, the jurors might choose the expert opinion that best fits their previous predilections on the factual issue in question, effectively nullifying the presentation of evidence, or they might (consciously or unconsciously) pick the view that leads to an outcome they prefer for other reasons. If the jurors are conscientious they might do their best to evaluate the conflicting testimony, but conclude that as far as they can tell one view cancels the other out.<sup>227</sup> Finally, there is the residual option: they might deliberately disregard the expert evidence entirely, out of anger, or confusion, or disappointment.<sup>228</sup>

#### IV. THE ATTEMPTED USE OF NEUTRAL EXPERTS

All of the major proposals to solve the problems of expert evidence share a central feature: the use of expertise obtained outside the usual adversarial channels. There have been a few proposals to use expert

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225. Goodman et al. *supra* note 215, at 68. See also SELVIN & PICUS, *supra* note 215.

226. Julie Research Lab., Inc. v. Guidline Inst., Inc. 501 F.2d 1131, 1133-34 (2d Cir. 1974). See also, e.g., New England Coalition v. United States Nuclear Reg. Comm., 582 F.2d 87, 100 (1st Cir. 1978).

227. Goodman et al., *supra* note 215, at 68.

228. For example, an instructive account by a trial attorney who served as a juror in a personal injury case includes a description of how the jury ignored all the medical testimony in the case. Thomas E. Siflen, *Trial Attorney as Juror: Through the Looking Glass*, LEGAL TIMES, July 11, 1983, at A6. See also Clemens Herschel, *Services of Experts in the Conduct of Judicial Inquiries*, 21 AM. L. REV. 571 (1887) (citing an 1885 case in which the jury did the same thing). In some bench trials, judges not only disregard all expert evidence but say so explicitly. E.g., *Hobson v. Hansen*, 327 F. Supp. 844, 859 (D.D.C. 1971) (Wright, J.) (because expert evidence on both sides was unduly complex, biased, and incomprehensible, the court was "forced back to its own common sense approach").

factfinders—expert judges, juries, or special masters<sup>229</sup>—or to provide expert assistants to lay judges.<sup>230</sup> The most frequently suggested reform, however, is the use of neutral or court-appointed expert witnesses, either to the exclusion of other experts or, more commonly, in addition to experts presented by the parties.

The attractiveness of this procedure is obvious. The most conspicuous dangers of adversarial expertise are (1) that partisan choice of witnesses will produce a biased selection of experts, and (2) that partisan compensation and preparation will further bias the evidence that these witnesses present. If witnesses are chosen and compensated by the court, and responsible to it, these pitfalls are avoided. Not surprisingly, the use of neutral expert witnesses has had numerous advocates. It has been

229. Frederic E. Elliot & Ramsay Spillman, *Medical Testimony in Personal Injury Cases*, 2 LAW & CONTEMP. PROBS. 466, 467-70 (1935) (try personal injury cases before a panel of one attorney, one doctor, and one lay person); G. A. Endlich, *Proposed Changes in the Law of Expert Testimony*, 32 AM. L. REV. 851, 854 (1898) (expert arbitrators; *Expert Testimony in Judicial Proceedings*, 9 ALB. L.J. 122 (1874) (unsigned editorial commenting favorably on proposal by Prof. Ordranax to try expert issues before panels of expert arbitrators); official expert investigators; expert jurors); Arthur F. Konopka, *Applied Social Research as Evidence in Litigation*, in THE USE/NONUSE/MISUSE OF APPLIED SOCIAL RESEARCH IN THE COURTS 129, 133-34 (Michael J. Saks & Charles H. Baron eds., 1980) (various proposals); James A. Martin, *The Proposed "Science Court,"* 75 MICH. L. REV. 1058 (1977) (specialized court for major scientific controversies);

230. E.g., Endlich, *supra* note 229, at 854-55 (expert assistants to judge); *Handbook of Recommended Procedure for the Trial of Protracted Cases*, 25 F.R.D. 351, 418-21 (1960) (special masters, advisory juries, expert advisers); Konopka, *supra* note 229, at 133-34 (expert clerks). Expert advisers have been used sporadically in federal courts, especially in admiralty and patent cases. *Reilly v. United States*, 682 F. Supp. 150 (D.R.I. 1988), *aff'd*, 863 F.2d 149 (1st Cir. 1988), in which such an adviser was used, includes a detailed history of this practice. The most famous instance is *United States v. United Shoe Machinery Corp.*, 100 F. Supp. 295 (D. Mass. 1953), *aff'd* 347 U.S. 521 (1954), in which Judge Charles Wyzanski appointed Professor Carl Kaysen, an economist, as his technical adviser. The procedure in *United Shoe* was later criticized on the ground that Professor Kaysen was not available to the parties or subject to cross-examination. See Webster & Hogeland, *The Economist in Chambers and in Court*, 12 A.B.A. SECTION ANTITRUST LAW PROCEEDINGS 50 (1958), a criticism in which Kaysen himself concurred. Kaysen, *An Economist as the Judge's Law Clerk in Sherman Act Cases*, 12 A.B.A. ANTITRUST SECTION L. PROCEEDINGS 43, 45-46 (1958). Judge Wyzanski later said that he had been wrong to use Dr. Kaysen in this capacity, and recommended a procedure he used in another case—appointing an expert special master who communicates with the parties jointly, prepares a written report that is presented to the judge and the parties, and is available for cross-examination by both sides. Wyzanski, *The Law of Change*, 1968 N. M. Q. 5, 19-20.

proposed for over a hundred years,<sup>231</sup> and has gained steadily in popularity since the early part of the century.

A quick walk through several editions of Wigmore's treatise is instructive. When he published the first edition of his *magnum opus* in 1903, Wigmore was mild in his criticism of the existing practice in this area, uncertain of the value of reform ("it certainly is an important question"), and agnostic on the content of possible changes, since "no one plan seems to have received any general support either in professional or in public opinion."<sup>232</sup> By the second edition, twenty years later, his point of view had crystallized: that "the present method registers itself as a failure" was, by then, "obvious on all hands."<sup>233</sup> The remedy was now equally clear: remove the partisanship of the expert witness. To this end, "the State, not the party, shall be the one to pay his fee, and . . . the Court, not the party, shall be the one to summon him."<sup>234</sup> At the time, this procedure had little currency. Wigmore could point to only a few recent statutes in American jurisdictions that explicitly authorized court-appointed experts in any context, and to drafts of a few more.<sup>235</sup> Still, he was confident: "Legislative progress in the adoption of this type of measure has been slow. But it is inevitably the way of the future."<sup>236</sup>

In one sense, Wigmore was right; provisions for the use of neutral experts were the wave of the future—on the statute books. In 1937, the National Conference of Commissioners on Uniform State Laws, responding in part to Wigmore's suggestions, adopted a Model Expert Testimony Act that provides for court-appointed experts. In 1938, this Act was endorsed by the American Bar Association Committee on the Improvement of the Law of Evidence.<sup>237</sup> In the following edition of his treatise, Wigmore was optimistic: "It would seem that the problem will have reached its final solution, assuming the Act or its equivalent is generally *adopted* and is *invoked* in practice when appropriate."<sup>238</sup> The first prerequisite for this final solution has been met. Explicit provisions for court-appointed experts have been adopted in the federal courts<sup>239</sup>

231. *E.g.*, Endlich, *supra* note 229; Hand, *supra* note 7; Clemens Herschel, *Services of Experts in the Conduct of Judicial Inquiries*, 21 AM. L. REV. 571 (1886); Emory Washburn, *Testimony of Experts*, 1 AM. L. REV. 45, 61-62 (1866).

232. 1 JOHN HENRY WIGMORE, A TREATISE ON THE SYSTEM OF EVIDENCE IN TRIALS AT COMMON LAW § 562, at 676-77 (1904).

233. 1 WIGMORE, *supra* note 232, § 563, at 966 (2d ed. 1923).

234. *Id.* at 967.

235. *Id.* at 968 n.4, 970 n.7.

236. *Id.* at 970.

237. *See* 2 WIGMORE, *supra* note 232, § 563 (3rd ed. 1940).

238. *Id.* at 650 (emphasis added).

239. FED. R. EVID. 706.

and in over thirty states and territories.<sup>240</sup> Furthermore, many cases have held that judges have the inherent power to call expert witnesses, even without specific statutory authorization.<sup>241</sup> On Wigmore's second condition, however, the matter has simply stalled. In most types of litigation, the authority to call court-appointed experts is hardly ever invoked.<sup>242</sup>

Rule 706 of the Federal Rules of Evidence is the model for a majority of the current provisions for the use of court-appointed experts. With few exceptions, these enactments contain the following five elements. First, an expert or experts may be appointed by the court on motion of a party or on its own motion, after notice. The court may ask the parties to submit nominations, and may encourage them to agree on the expert(s) to be appointed, but the actual selection is for the court. Second, an appointed expert shall be informed of her duties either by a written court order or at a conference with the parties. The expert shall inform the parties of her findings, and may be called as a witness by the court or by any party. The expert shall also be available for deposition, and subject to cross-examination, by any party. Third, the court determines an appointed expert's compensation. In criminal cases, the expert will be paid from public funds; in civil cases, the court will order the parties to make payments as it sees fit, and the expert's fee will then be charged as a cost. Fourth, the court has discretion to authorize disclosure to the jury of the fact of an expert's appointment. Fifth, the court's power to appoint expert witnesses does not limit the parties' power to call their own.

The most conspicuous fact about this authority is that it is rarely used. Weinstein and Berger, for example, comment on "the remarkably few cases in which federal judges have appointed experts," and add that "[t]he federal experience is not unique."<sup>243</sup> This observation was

240. See JACK B. WEINSTEIN & MARGARET A. BERGER, 3 WEINSTEIN'S EVIDENCE § 706(04), at 706-40 (1988) (listing jurisdictions adopting versions of Federal Rule of Evidence 706) [hereinafter "WEINSTEIN'S EVIDENCE"]; 2 WIGMORE, *supra* note 4, § 563 (Chadbourn rev. 1979) (listing provisions for court-appointed experts generally).

241. *E.g.*, *Scott v. Spanjer Bros.*, 298 F.2d 928, 930-33 (2d Cir. 1962); *Hart v. Community Sch. Bd. of Brooklyn*, 383 F. Supp. 699 (E.D.N.Y. 1974), *aff'd*, 512 F.2d 37 (2d Cir. 1975). See John M. Sink, *The Unused Power of a Federal Judge to Call His Own Expert Witness*, 29 S. CAL. L. REV. 195 (1956); R. E. Barber, Annotation, *Trial Court's Appointment, in a Civil Case, of Expert Witness*, 95 A.L.R.2d 390 (1964).

242. There are some exceptions to this general pattern of neglect. For example, court appointed experts are often used in determinations of present sanity in criminal cases, and in child custody disputes. See *infra* notes 310-11 and accompanying text.

243. 3 WEINSTEIN'S EVIDENCE, *supra* note 240, § 706[01], at 706-13 (1988); see also MANUAL FOR COMPLEX LITIGATION 2d § 21.5 (1985); 2 CHARLES A. WRIGHT, FEDERAL PRACTICE AND PROCEDURE: FEDERAL RULES OF CRIMINAL PROCEDURE § 452, at 624 (1982) (commenting on the infrequent use of Rule 28 of the Federal Rules of

confirmed in two recent studies conducted by the Federal Judicial Center. The first study included a survey of all published federal opinions through 1985; it found only forty-five references to Rule 706, and only thirty-seven cases "in which an appointment was made or discussed extensively."<sup>244</sup> The second study was a survey of 79% (417/526) of all active federal district court judges. Eighty-one percent of the judges said that they had never appointed an expert witness under Rule 706, and only 8% said that they had done so more than once<sup>245</sup>—yet all of these judges must hear disputes between partisan experts dozens of times each year. My own data on California civil trials are even more stark.<sup>246</sup> They include 1,748 appearances by partisan experts in 529 cases, but not a single reference to a court-appointed expert, despite the fact that the California evidence code contains provisions for appointment similar to those in Rule 706.<sup>247</sup>

Why is this power of appointment so neglected?

One possible answer is that Rule 706 and similar provisions are insufficiently structured; they do not define specific areas of expertise for appointment, and they do not help judges locate and select appropriate experts. This is a real problem. Consider the following description of the process of appointment in *Superior Beverage Co. v. Owens-Illinois, Inc.*,<sup>248</sup> one of the few federal cases in which Rule 706 was employed:

[T]he Court invited the parties jointly to submit a list of five experts acceptable to the parties from which the Court would then select the person to be appointed. The parties were, unfortunately, unable to reach agreement . . . .

[T]he Court has canvassed many individuals within the judicial and academic communities concerning the names of individuals who would qualify for appointment . . . . The Court carefully evaluated the qualifications of each candidate and possible conflicts of interest.

After completing the process, the Court has selected Professor Daniel L. Rubinfeld, Professor of

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Criminal Procedure, which provides for appointed experts in criminal cases).

244. THOMAS E. WILLGING, COURT APPOINTED EXPERTS 3 n.11 (1986).

245. Letter from Joe Cecil, Senior Research Associate, The Federal Judicial Center to Samuel R. Gross (July 10, 1988)(on file without author).

246. See *supra* notes 18-20 and accompanying text.

247. CALIFORNIA EVIDENCE CODE §§ 730-733 (Deering 1991).

248. No. 83-C-512, 1987 WL 9901 (N.D. Ill. Jan. 30, 1987).



Economics and Professor of Law, University of California at Berkeley, as the Court's expert.<sup>249</sup>

Ultimately, the judge in *Superior Beverage* made an excellent choice; but how often will she (or her colleagues) be willing and able to go to all that trouble?

To the extent that finding experts is the problem, there is a solution: assemble panels of experts who are qualified and willing to accept court appointments. For medical testimony in personal injury cases, where the need is greatest, courts in some metropolitan jurisdictions have done just that, and even provided public funds to pay the appointed doctors. These plans have had little effect. The most famous, the New York Medical Expert Testimony Project,<sup>250</sup> received a great deal of attention when it was initiated thirty-nine years ago, and served as a model for several similar plans,<sup>251</sup> but probably never had much impact on practice in New York courts. Even in its first two years, when the plan was in its heyday, only 3% to 6% of the personal injury trials in the affected counties used impartial experts from this panel,<sup>252</sup> and even fewer of the cases that settled.<sup>253</sup> By 1976, the project had fallen into general disuse.<sup>254</sup>

Comparable plans in other jurisdictions have fared even worse. A state-wide plan in New Jersey was used an average of six times a year from 1961 through 1975,<sup>255</sup> and in Los Angeles in 1967 not a single expert had been appointed from the local panel in twenty-two months.<sup>256</sup>

249. *Id.* at \*1.

250. NEW YORK BAR, *supra* note 8 (a report by the bar association committee that administered the New York project).

251. *See, e.g.*, John Holschuh, *Advocacy in the Preparation and Presentation of Medical Evidence*, 21 OHIO ST. L.J. 160, 166-73 (1960); Elwood S. Levy, *Impartial Medical Testimony—Revisited*, 34 TEMP. L.Q. 416, 417-19 (1961); Larry W. Myers, "The Battle of the Experts: A New Approach to an Old Problem in Medical Testimony," 44 NEB. L. REV. 539, 567-72 (1965); Note, *The New York Medical Expert Project: An Experiment in Securing Impartial Testimony*, 63 YALE L.J. 1023 (1954).

252. NEW YORK BAR, *supra* note 8, at 30-31 (18 cases that were referred to impartial experts were tried to verdicts and 18 settled during trial, out of an estimated 520 personal injury trials).

253. Myers, *supra* note 251, at 570 (cases that were referred to impartial experts were more likely to go to trial than other cases).

254. Theodore I. Botter, *The Court-Appointed Impartial Expert*, in *USING EXPERTS IN CIVIL CASES*, 57, 62 n.17 (Melvin D. Kraft ed., 1977).

255. *Id.*

256. Note, *supra* note 64, at 729. Myers, *supra* note 251, at 567-77, summarizes the experience with impartial medical panels in eight jurisdictions, as of 1965, and concludes that, "[t]he plans are used in a relatively small number of the total cases processed by a court." *Id.* at 576. He tries to put the best face on this conclusion by arguing that "[p]erhaps the greatest contribution of the plans is their intangible effect on

This sort of record does not attract many followers. In 1961, eighty-three of ninety-nine courts that responded to a survey by the *Temple Law Quarterly* had either rejected proposals to set up impartial medical panels, or had never considered the possibility,<sup>257</sup> and there is no evidence that the idea has become any more popular since.<sup>258</sup>

Another possible explanation for the disuse of provisions for court-appointed experts is that the procedure is a bad idea, and judges know it. There are quite a few articulate proponents of this point of view, mainly trial lawyers. Their main arguments fall into two categories.<sup>259</sup> First, court-appointed experts have too much power. They are all but impossible to impeach or contradict, and, as a result, their testimony is dispositive of any issue they touch. Some couch this argument in strong rhetorical terms: the appointment of an expert witness by the court compromises the impartiality of the judge (who associates her prestige with a particular witness), undermines the adversarial system of litigation (by limiting party control over the development of evidence), and destroys the parties' right to a jury decision (because the expert will become the *de facto* factfinder).<sup>260</sup> Second, court-appointed experts are misleading. They are not truly impartial—no expert witness can be that—and they are as fallible as anyone else, yet they project a false aura of infallibility. This is particularly dangerous on issues where a discipline is divided into opposing camps; in that situation the choice of the appointed expert

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cases where they are *not* used," where the threat of referrals "may well lead to less divergence in the medical contentions of the parties," *id.* at 577; and that "[t]he plans have generated great enthusiasm in the medical profession in most jurisdictions." *Id.* Unfortunately, the declining use of such plans since the mid-1960s has belied this optimism.

257. Henry Menin & Gary C. Leedes, Note, *The Present Status of the Impartial Medical Expert in Civil Litigation*, 34 TEMP. L.Q. 476 (1961).

258. Botter, *supra* note 254, at 62.

259. In addition, lawyers may also object to *paying* for court-appointed experts, but that is a derivative argument. The same lawyers are perfectly willing to spend large amounts of money—their clients' or their own—on partisan experts. Any significant use of neutral experts will ultimately reduce the total bill for experts by reducing the number and the complexity of litigated disputes on expert issues. The reason lawyers object to *this* type of payment, of course, is that they do not want to see *this* type of expert witness.

260. *E.g.*, Howard K. Berry, *Impartial Medical Testimony*, 32 F.R.D. 539, 544-45 (1962); William H. DeParq, *Law, Science and the Expert Witness*, 24 TENN. L. REV. 166, 171 (1956); Elwood S. Levy, *Impartial Medical Testimony—Revisited* 34 TEMP. L.Q. 416, 424-25 (1961); Richard F. Record, *The Federal Rules of Evidence—Origins, Analysis, and Impact*, 24 DEF. L.J. 111, 130-31 (1975); Thomas F. Lambert, Jr., *Impartial Medical Testimony: A New Audit*, 20 NACCA L.J. 25 (1957); Stephen A. Saltzburg, *The Unnecessarily Expanding Role of the American Trial Judge*, 64 VA. L. REV. 1, 74-80 (1978).

effectively determines the outcome of the case.<sup>261</sup> In general, a court-appointed expert is also likely to do a routine and shoddy job, with none of the devotion and thoroughness that mark the work of the adversarial expert.<sup>262</sup>

As factual claims, these arguments are unpersuasive. Appointed experts may be more influential than adversarial experts, but that is as it should be. Other things being equal, the evidence of appointed experts *ought* to be given more weight for the very reason that they are not partisans of one side or the other. This does not mean that court-appointed experts have *undue* influence, and certainly not that judges or juries think they are infallible. In our everyday lives, we all consult with non-partisan doctors, builders, and even lawyers; we rely on them, but we do not generally consider them infallible. There is no *a priori* reason to believe that this skepticism will somehow evaporate in court, and our limited experience with appointed experts suggests the opposite. For example, from June 1958 to September 1964, there were twenty-four jury verdicts in the United States District Court for the Eastern District of Pennsylvania in trials that included testimony by doctors from a panel of impartial experts. Fifteen of these verdicts were "consistent with the report of the neutral doctor"; nine were not.<sup>263</sup>

There is also no reason to suppose that neutral experts will do their work less competently and conscientiously than partisan experts, other things being equal. Sometimes, of course, other things are not equal. In a system in which court-appointed experts are marginal players, it is not surprising to find that some of those who are used are barely qualified and inadequately compensated, and operate at the margins of acceptable practice. Judging from published criticisms, the main offenders in this respect are court-appointed psychiatrists and psychologists.<sup>264</sup> Similarly, the only specific claims that supposedly neutral experts have serious hidden biases are also directed at court-appointed psychologists and psychiatrists.<sup>265</sup>

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261. E.g., Berry, *supra* note 260, at 539-43; Bernard L. Diamond, *The Fallacy of the Impartial Expert*, 3 ARCHIVES CRIM. PSYCHODYNAMICS 221 (1959); Lambert, *supra* note 260; Levy, *supra* note 260, at 419-24; Record, *supra* note 260; Carl J. Schuck, *Techniques for Proof of Complicated Scientific and Economic Facts*, 40 F.R.D. 33, 38 (1967); Bethel M. Webster, *The Use of Economic Experts as Witnesses in Antitrust Litigation*, 32 F.R.D. 99 (1962);.

262. E.g., Diamond, *supra* note 261, at 227.

263. Myers, *supra* note 251, at 573.

264. See, e.g., Diamond, *supra* note 262, at 224-28; Henry Weihofen, *Detruding the Experts*, 1973 WASH. U. L.Q. 38.

265. See, e.g., Diamond, *supra* note 261, at 228-29; Weihofen, *supra* note 264, at 39-40; Bruce J. Ennis & Thomas R. Litwack, *Psychiatry and the Presumption of Expertise: Flipping Coins in the Courtroom*, 62 CAL. L. REV. 693, 746-47 (1974).

I can see two reasons for this negative focus on court-appointed experts in psychiatry and clinical psychology. *First*, these are highly controversial areas for expert evidence in any form, probably the most controversial subjects on which expert testimony is routinely allowed. Many commentators believe that expert psychological and psychiatric testimony should be severely restricted, or excluded altogether.<sup>266</sup> As a corollary, some commentators argue that if partisan psychologists and psychiatrists cannot be eliminated, at least we should not extend the scope of this evil by adding court-appointed ones.<sup>267</sup> A more sympathetic critique reaches the same conclusion by a different route: psychiatric and psychological expertise is not misleading in itself but it is different from other types of expertise, and it is inherently partisan; claims of neutrality, therefore, are inappropriate.<sup>268</sup> *Second*, in some jurisdictions in which court-appointed psychiatrists and psychologists are used comparatively frequently, they are typically chosen for reasons of convenience and economy rather than quality. Courts regularly appoint psychiatrists or psychologists to evaluate indigent defendants in criminal cases and indigent respondents in civil commitment proceedings, at state expense. In some places courts use those private practitioners who are willing to write reports for nominal compensation. In other jurisdictions, subjects are evaluated by staff doctors in state mental hospitals, who may be overworked and underqualified, and whose neutrality may be compromised by institutional habits, interests and biases.<sup>269</sup>

These are significant problems, but only in this one context. The widespread doubts about the intrinsic value of psychiatric and psychological expertise do not extend to other disciplines; in ordinary civil cases appointed experts are typically paid reasonable fees by the parties,<sup>270</sup> and can be expected to do reasonable work in return; and, in contexts in which there is no financial incentive to use state-employed experts, potential witnesses with troublesome institutional ties can simply be passed over for appointment.

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266. See, e.g., JAY ZISKIN, *COPING WITH PSYCHIATRIC AND PSYCHOLOGICAL TESTIMONY* (3d ed. 1981); Ennis & Litwack, *supra* note 265; Comment, *The Psychologist as Expert Witness: Science in the Courtroom?*, 38 MD. L. REV. 539 (1979).

267. Ennis & Litwack, *supra* note 265, at 746-47.

268. Diamond, *supra* note 261; Bernard L. Diamond, *The Psychiatrist as Advocate*, 1 J. PSYCHIATRY & L. 5 (1973); Bernard L. Diamond & David W. Louisell, *The Psychiatrist as an Expert Witness: Some Ruminations and Speculations*, 63 MICH. L. REV. 1335 (1965).

269. See, e.g., Fred Cohen, *The Function of the Attorney in the Commitment of the Mentally Ill*, 44 TEX. L. REV. 424 (1966); Diamond, *supra* note 261, at 224-46, 230-34; Ennis & Litwack, *supra* note 265, at 746 n. 189, 747 n. 192; Weihofen, *supra* note 264; David P. Wexler et al., Special Project, *The Administration of Psychiatric Justice: Theory and Practice in Arizona*, 13 ARIZ. L. REV. 1 (1971).

270. See, e.g., FED. R. EVID. 706(b).

The limited nature of these complaints is suggested by the pattern of reports on the use of court-appointed experts in professional journals. As far as I can tell, there are no concrete criticisms of the performance of particular court-appointed experts, except those levelled against psychiatrists and psychologists. Admittedly, appointed experts are not used often, but they have testified frequently enough to provide at least anecdotal evidence of serious problems, if serious problems were likely. Nonetheless, the trial lawyers who complain loudly about the dangers of appointing expert witnesses never point to actual examples of abuse or neglect by court-appointed physicians, or engineers, or statisticians. Except for psychiatrists and psychologists, they have no horror stories with which to scare us.

There are, of course, situations in which a field is divided into opposing camps. When that is true, any single expert may provide a misleading view of the issues. This is, however, a limited difficulty. There are other cases (probably many more) where there is no such division. Generally, appointed experts are not used in either situation. Moreover, an appointed expert might be particularly useful in a case where the field is split, if she is carefully chosen and her role is well defined, since she can explain the nature of the division to the jury. In the absence of that sort of help the jury is left to choose on its own between competing partisan experts who advocate incompatible positions. Is there any reason to suppose that they are likely to do as well in that situation as they would with the benefit of advice, albeit imperfect, from a neutral expert?

The argument that court-appointed experts cannot be effectively cross-examined is particularly misguided, and in a revealing way. It is true that attacks on the competence and the integrity of the witness will be more difficult, perhaps impossible, but other types of cross-examination will be easier. Cross-examination of a partisan expert is a chancy affair. The witness has every incentive to try to thwart and undermine the attorney, and is frequently able to turn the tables on the cross-examiner. A neutral witness has no reason to play that game. She will be more willing to acknowledge the limits of her conclusions, to admit to uncertainties, and to consider new possibilities with an open mind. As a result, the cross-examination of a court-appointed expert will sound more like the cross-examination of a non-party lay witness, and less like the current method of examining a hostile expert. It will be more of an inquiry into the bases and limits of the expert's opinions and less of a battle of personalities.<sup>271</sup> This is hardly a criticism.

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271. F. Hastings Griffin, Jr., *Impartial Medical Testimony: A Trial Lawyer In Favor*, 34 TEMP. L.Q. 402, 413-15 (1961); Note, *supra* note 64 at 731. See also Washburn, *supra* note 231, at 63-64.

However, even to the extent these arguments against appointed experts are true—or that judges believe them—they do not explain the pervasive failure to use such experts. For one thing, the existing rules make it possible to avoid these issues entirely, at least in many cases. Judges are encouraged to appoint experts whom the parties choose by mutual agreement;<sup>272</sup> in jurisdictions with organized panels, the judge typically plays no part in the choice of the witness even in the absence of an agreement by the parties; if an issue divides a field into opposing camps, *two* experts can be appointed; and the jury can be kept ignorant of an appointed expert's status<sup>273</sup> (to my mind, a bad idea). Few judges even try to make use of these options. Besides, the main thrust of the arguments against appointed experts is that *juries* will be improperly deferential to them, but experts are only rarely appointed even in non-jury cases.<sup>274</sup>

A final explanation that is sometimes offered for the failure of judges to use their power to appoint experts is ignorance—that lawyers and judges are simply unaware of this option.<sup>275</sup> If that is true, however, it is a symptom and not the underlying cause. These provisions are no secret. If they are invoked primarily "during sporadic campaigns to encourage the use of court-appointed experts,"<sup>276</sup> the reason is not casual lack of information, but affirmative disinterest. If attorneys and judges liked this practice, it would be widely used and widely known.

The true reasons for the failure to use court-appointed experts are social and structural, and the most obvious of these is the steadfast hostility of trial lawyers. Opposition by the organized trial bar is strong, and the public statements of prominent lawyers run to alarmism: the use of court-appointed experts "would fit well into . . . a non-adversary, almost communistic scheme," but we should "cling with liberty-loving, jealous loyalty to our system."<sup>277</sup> The use of court-appointed experts "would literally obliterate . . . medical malpractice cases";<sup>278</sup> "[t]rial by

272. FED. R. EVID. 706(a).

273. FED. R. EVID. 706(c).

274. The use of appointed experts may, however, be less rare in bench trials than in jury trials. Of the 36 cases with appointed experts that went to trial during the first two years of the New York Medical Expert Testimony Project, 17 (47%) were tried without juries, a surprisingly high rate for personal injury trials. NEW YORK BAR, *supra* note 8, at 32; see Hans Zeisel, *The New York Expert Testimony Project: Some Reflections on Legal Experiments*, 8 STAN. L. REV. 730, 733 (1956) (book review).

275. Note, *supra* note 256, at 734-35.

276. Botter, *supra* note 254, at 62.

277. Berry, *supra* note 260, at 545.

278. *Proposes Rules of Evidence: Hearings Before the Special Subcommittee on Reform of Federal Criminal Laws of the Committee on the Judiciary, House of Representatives*, 93rd Cong., 1st Sess., Serial No. 2, 296-97 (1973) (testimony of James Schaeffer, Chairman, ATLA) (quoted in 3 WEINSTEIN'S EVIDENCE, *supra* note 240, at

jury . . . [would] become[] no more than an empty illusion, a shibboleth, to which lip-service is paid while its destruction is endorsed."<sup>279</sup> Lawyers, of course, do not have the authority to appoint experts or to decline to do so, but their position influences the actions of judges, who do have that authority, in two ways. First, most judges are former trial lawyers and share some of the outlook of their past colleagues. Second, in our adversarial system of litigation lawyers are the dominant actors. They define the issues, assemble the evidence, and control the pace of litigation. Judges, of course, have a great deal of power, and can impose their will on lawyers, but concerted opposition from the trial bar is a serious obstacle to any proposed judicial reform.

The most surprising fact about trial lawyers' opposition to court-appointed experts is the level of unity this position commands. Litigation is essentially a zero-sum contest; what hurts one side almost inevitably helps the other. As a consequence, one might expect one party or another to move for a court-appointed expert in a substantial proportion of cases that turn on expert evidence. In general, the use of a court-appointed expert is likely to help the side whose claims are more in accord with the consensus of expert opinion, and the side whose own experts are the less skilled testifiers. These are straightforward principles, and they ought to point to a probable beneficiary in many cases, but the parties who might gain from this procedure almost never attempt to use it.

Plaintiffs' attorneys often complain that court-appointed doctors are likely to have a systematic pro-defense bias in civil cases: that they will favor the defendants in medical malpractice cases, and the insurance companies (the true parties in interest for the defense) in personal injury cases.<sup>280</sup> This may or may not be true,<sup>281</sup> but the perception is wide-

706-03).

279. Levy, *supra* note 260, at 425.

280. E.g., NEW YORK BAR, *supra* note 8, at 23; (noting opposition to the New York plan among plaintiffs' lawyers); Note, *supra* note 64, at 733-34.

281. The official report on the New York Expert Medical Testimony Project notes this objection, and acknowledges that "impartial experts more often find against plaintiff's medical claims than in favor of them." NEW YORK BAR, *supra* note 8, at 23. The report, however, is at pains to argue that the project "has not been a one-way street for defendants," pointing out that in many cases claims were sustained or even augmented. *Id.* As Hans Zeisel has pointed out, however, the data reported are inadequate to address this claim one way or the other. Zeisel, *supra* note 274, at 734-40. The important question is not whether the appointed expert agrees with one side or the other, but whether she is right, and on that question I have no information. In fact, the existing data do not even answer a more limited question--whether this procedure tends to disfavor plaintiffs not in absolute terms but *compared to* ordinary litigation with partisan experts. Zeisel suggests conducting a controlled experiment to answer that latter question, and that would be the best way to find out. If an experimental study could not be conducted, comparisons of detailed information from cases with and without appointed experts would be the next best strategy.

spread enough that one might expect to find the civil defense bar lining up *in support* of appointed experts. In addition, the insurance companies themselves have a less debatable reason to favor this procedure. As frequent litigators and institutional risk assessors, they have a long-term interest in a predictable process of adjudication. Neither of these arguments, however, has had much influence on attorneys for civil defendants. Many articles on appointed experts in trade journals of the insurance defense bar take the same negative position as articles in parallel publications by associations of plaintiffs' lawyers,<sup>282</sup> and in practice (the more telling indicator) defense lawyers and plaintiffs' lawyers seem to be equally loath to ask judges to appoint experts.

To some extent, the general failure to use this procedure may reflect systematic misperceptions on the part of trial lawyers. Psychological literature on related topics has described a set of pervasive cognitive biases that would tend to make the attorney on each side overestimate the quality of his own expert evidence and underestimate the relative strength of the opposition's case<sup>283</sup>—which, of course, would make him unlikely to favor a neutral expert, who might undercut this perceived advantage. This pattern of incompatible optimism by the two sides is likely to be particularly common among the minority of litigated cases that go to trial, since it is harder to settle cases when each side expects to win in court.<sup>284</sup> In the case of insurance lawyers, it is also possible that they do not fairly represent the interests of their clients because they themselves have no incentive to favor court-appointed experts—or perhaps a negative incentive, since that practice might simplify litigation and reduce their fees. But there are competing pressures on both counts. Trial lawyers are trained to evaluate their cases dispassionately, and are rewarded in part for their skill in doing so. Similarly, trial lawyers often advocate the interests of their clients, and sometimes even campaign for

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282. Compare, e.g., Emile Zola Berman, *A Lawyer Looks at the Doctor*, 24 INS. COUNS. J. 418, 420-21 (1957); Alfred S. Julien, *Impartial Medical Plan*, 447 INS. L.J. 213 (1960); and Record, *supra* note 261 with Lambert, *supra* note 260; and *Significant Cases*, 24 TRIAL LAW. GUIDE 457 (1980). But see William A. Wick & Erle A. Kightlinger, *Impartial Medical Testimony Under the Federal Civil Rule: A Tale of Three Doctors*, 34 INS. COUNS. J. 115 (1967).

On some other issues—for example, the propriety of "per diem" arguments on pain and suffering—plaintiffs' and defense journals are clearly divided by their party allegiances. Compare, e.g., Richard F. Griffin, *Prejudicial Elements in Plaintiff's Arguments for Damages*, 11 DEF. L.J. 1 (1962) with Comment, *Tort Law—Reviews of Leading Current Cases*, 32 J. AM. TRIAL LAW. ASS'N. 141, 153 (1968).

283. See generally RICHARD E. NISBETT & LEE ROSS, *HUMAN INFERENCE: STRATEGIES AND SHORTCOMINGS OF SOCIAL JUDGMENT* 228-37 (1980).

284. See generally Gross & Syverud, *supra* note 18; George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984).



them, despite contrary economic interests of their own.<sup>285</sup> Needless to say, professional judgment and principle do not always prevail over bias and self interest, but they do not always fail. The existence of conflicting motivations cannot explain what we see here: the near complete avoidance of a device that is bound to be a significant benefit to one side or the other in many cases.

The real explanation for these attitudes and this uniform pattern of behavior is rooted in the nature of the role of the trial lawyer. People become trial lawyers in large part because they enjoy the power and drama of the position. If expert witnesses became court-appointed, a sizeable chunk of the domain in which trial lawyers exercise that power would be taken away. Melvin Belli, the quintessential trial lawyer, expresses the point of view well:

I love nothing more than to have a good forensic psychiatrist in a case . . . . I enjoy going over their testimony with them beforehand, preparing with them, reviewing all their records and everything else pertinent to the case,—developing all our reasons and erecting all our supports for the case together. When all of this has been built in advance, and when we have done our job well, it's a beautiful thing when they come into court. When they have done their job well, I don't even have to make a closing argument. They have made it for me.<sup>286</sup>

By the same token, Melvin Belli would like few things less than to cede any of this territory, and an appointed expert could occupy quite a bit of it. Other trial lawyers, for whom Belli is a role model, feel the same, despite the fact that in practice they may be hurt by their opponents' experts far more than they are ever helped by their own. They may not win, but they want to play.<sup>287</sup>

This is not merely a turf war between lawyers and judges. Trial work is a risky, unpredictable business. The lawyer's main task is to attempt to control it, and the major method of achieving control is witness

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285. See, e.g., Glenn L. Allen, *Insurance Bad Faith Law: The Need for Legislative Intervention*, 13 PAC. L.J. 833 (1982); Ollie L. Blan, *The Tort of Bad Faith—A Defense Viewpoint*, 34 ALA. L. REV. 543 (1983) (defense attorney arguing against a doctrine that "created a potential monster that could absorb untold resources of the insurance industry" defending claims).

286. Belli, *supra* note 15, at 75.

287. As one trial lawyer put it, "[h]ow can an advocate, who has a passable pride in his advocacy, ever subscribe to this plan to stifle his art, and, in a way, subvert his ethics?" Berry, *supra* note 260, at 544 (emphasis in original).

preparation. A good trial lawyer aims to know in advance all the answers his witnesses will give on direct and on cross-examination, and all the answers he will get on cross-examination of the opposing witnesses; to the extent possible, he also attempts to shape the testimony of the witnesses he calls. Partisan experts fit right into this scheme, but a court-appointed expert is different. She lacks the commitment to a party that would enable its attorney to shape and organize her testimony. Often her general position will not be known in advance, but even if it is known and favorable to a particular side, an appointed expert is dangerous. She is liable to give unanticipated answers to questions from either party. Trial lawyers cringe at risks like that. They would rather rely on adversarial experts, who may be less credible but will certainly be more tractable and predictable.<sup>288</sup>

The fact that trial lawyers oppose appointed experts is not a sufficient explanation for the failure of judges to appoint them. Although some judges have expressed reservations about this procedure,<sup>289</sup> many, if not most, seem to like it—at least in the abstract. In a 1987 Harris Poll of 800 state and 200 federal judges, large majorities in each category (70% and 76%, respectively) favored the use of non-partisan experts in "cases involving technical or scientific issues, such as toxic torts, malpractice, or complex business cases."<sup>290</sup> (In fact, the use of non-partisan experts was the only one of several suggested reforms in the use of expert

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288. See Mark Dombroff, *Court Appointment Can Resolve Battle of Experts*, LEGAL TIMES, April 8, 1985, at 18. ("From a tactical viewpoint, an enormous risk may be associated with the use of a court-appointed expert. . . . Assuming the expert is testifying in a manner favorable to you, the benefits are significant. Equally significant is the damage to your case when the expert testifies, in effect, against you. The problem with this situation is that . . . the parties might not know the leanings of the court-appointed expert until his first report was issued. . . . The major benefit that results from the use of court-appointed experts relates to the better workings of the system. From an adversarial point of view, the court-appointed expert is in many respects not a good technique.").

289. E.g., Levy, *supra* note 260, at 425-26 (noting criticism of the New York medical panel plan by several New York judges); Myers, *supra* note 251, at 577-89 (citing criticism of impartial medical panels by several Nebraska judges).

290. Louis Harris and Associates, *Judges' Opinions on Procedural Issues: A Survey of State and Federal Trial Judges Who Spent at Least Half Their Time on General Civil Cases*, 69 B.U. L. REV. 731, 741 (1989) [hereinafter "Louis Harris Survey"]. A small 1965 survey of judges, lawyers and doctors in Nebraska obtained similar results: 75% of the 16 judges who responded favored the creation of panels of impartial medical experts. Myers, *supra* note 251, at 540. By contrast, on another recent Harris poll, only 42% of a sample of private defense litigators and 40% of a sample of private plaintiffs' litigators said that increased use of independent court appointed expert witnesses would be "very beneficial" or "somewhat beneficial." (Samples of "public interest litigators" and "corporate counsel" had more favorable responses, 58% and 53% respectively.) LOUIS HARRIS AND ASSOCIATES, PROCEDURAL REFORM OR THE CIVIL JUSTICE SYSTEM, STUDY NO. 881023, at 68 (1989).

testimony that was not *opposed* by majorities of both state and federal judges.<sup>291</sup>) Similarly, 87% of the federal district court judges in a recent survey by the Federal Judicial Center said that "appointed experts under Rule 706 are likely to be helpful in certain types of cases," although at least three-quarters of those who said so had never actually appointed expert witnesses themselves.<sup>292</sup>

On other procedural questions where lawyers and judges differ, the judges get their way frequently, if not always. For example, most judges are known to dislike attorney questioning of prospective jurors on voir dire.<sup>293</sup> Accordingly, federal judges (and state judges who have the power to do so) usually conduct the entire voir dire themselves, despite the fact that most trial lawyers would prefer a direct role in the process.<sup>294</sup> If judges acted on their apparent preferences in this context, they would appoint experts in at least a reasonable proportion of their trials. Why do they fail to do so?

Part of the answer is that judges as well as lawyers want trials to be predictable and controlled. Most American trials are conducted as unbroken, unitary events. This is the common practice in all types of cases, and while it could perhaps be modified for bench trials, it would be extremely difficult to change in jury trials, which require the presence of an ad-hoc group of non-professional adjudicators. Quite aside from the interests of the parties, the judicial economy of this form of trial requires careful advance preparation of the witnesses—to obtain evidence on all the issues that might come up in this compact, one-shot proceeding, and to make the presentation of that evidence reasonably efficient. This is especially important for expert witnesses, whose testimony can be so wide-ranging and complex.

The judge has no reason to worry about the preparation of a partisan expert; that is the responsibility of the attorney who calls the witness. To the extent that the judge views her role as overseeing the process of presenting evidence to the jury, partisan experts are the least of her problems, since they (unlike many lay witnesses) are likely to be experienced, well prepared and well spoken. (This may explain why

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291. Louis Harris & Associates, *supra* note 290, at 733, 740-41.

292. Cecil, *supra* note 245.

293. See JURYWORK, SYSTEMATIC TECHNIQUES § 2.11[3] 7 (E. Krauss & B. Bonora eds., 1991).

294. See *id.*; GORDON BERMANT, CONDUCT OF VOIR DIRE EXAMINATIONS: PRACTICES AND OPINIONS OF FEDERAL DISTRICT COURT JUDGES (Federal Judicial Center, 1977); Paul Caruso, *Final Argument*, in TRIAL AND TORT TRENDS OF 1968, 95, 196 (Melvin Belli ed., 1969); Marvin E. Lewis, *Voir Dire*, in TRIAL AND TORT TRENDS OF 1968 74, 85 (Melvin Belli ed., 1969); Comment, *The Uses and Abuses of Voir Dire Examination*, 17 DEF. L.J. 440 (1968).

many judges are generally satisfied with the present system of using expert evidence.)<sup>295</sup>

A court-appointed expert, however, is nobody's responsibility. Preparation by the parties' attorneys will not have the usual effect. They have no control over an appointed expert and are likely to be suspicious of the entire enterprise, if not overtly hostile, while the expert herself has no commitment to any one party and will probably be reluctant to compromise her neutrality by working too closely with either side. Worse, at least some authorities believe that *ex parte* communications between attorneys and court-appointed experts are improper.<sup>296</sup> This would mean that any pre-trial preparation by the attorneys must take place (if at all) in the presence of the opposition—a procedure American lawyers will shun.

Nor can the judge fill the vacuum. Some judges clearly feel that witness selection and preparation are tasks they left behind when they were elevated to the bench. But even a judge who wanted to undertake this responsibility would be in a poor position to do it. By comparison to most other countries, the legal system in the United States includes very few judges per lawyer.<sup>297</sup> As a result, a large measure of judicial passivity is structurally inevitable. A typical American judge has little or no advance information about the next case she will try, and little, if any, time to prepare for it. She could not possibly conduct the type of expert-witness preparation that an attorney for a party can afford. Moreover, out-of-court witness preparation by the judge is a strange concept to American law; it runs counter to the prevailing norms of

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295. Louis Harris Survey, *supra* note 290, at 738 (56% of a sample of federal judges and 58% of a sample of state judges said there are no problems or not many problems "related to the qualifications and inappropriate use of expert witnesses" in their jurisdictions).

296. *See, e.g.,* *Leesona Corp. v. Vorta Batteries, Inc.*, 522 F. Supp. 1304, 1312 n.18 (S.D.N.Y. 1981) ("The parties were not permitted to communicate directly with [the court-appointed expert]. All communication with the court expert was done through the Court, and copies of all materials sent by the Court [to the expert] were docketed by the clerk and placed in the court file."). Weinstein & Berger quote approvingly from a proposed subsection of Rule 706 that was not adopted that would have prohibited any party, or any attorney for a party, from communicating with an appointed expert (except in the course of a medical examination of a party by the expert); they add their own opinion that, "[of] course *ex parte* attempts to influence the expert are improper." 3 WEINSTEIN'S EVIDENCE *supra* note 240, § 706[2], at 706-20 n.21 (1988). *See also* WILLGING, *supra* note 244, at 8 ("*ex parte* communication between a party and the court's expert should . . . be prohibited.>").

297. Marc Galanter, *Reading the Landscape of Disputes: What We Know and Don't Know (And Think We Know) About Our Allegedly Contentious and Litigious Society*, 31 UCLA L. REV. 4, 51, 54-55 (1983). For example, by Galanter's estimates, the United States has less than half as many judges per capita as West Germany, and 5.6 times as many lawyers per capita. Calculated from Table 3, *id.* at 52-53.

practice, and would probably be considered improper.<sup>298</sup> In other words, appointed experts are on their own, which makes judges reluctant to use them in all cases, and doubly reluctant to do so in jury trials, where the formalities, the ritual, and the need for preparation are all greatest. To use the insulting metaphor of the trade, in a system in which expert witnesses generally come from well managed stables, a court-appointed expert is a horse with no rider.<sup>299</sup>

Experts who disdain litigation sometimes say that they would be willing to participate in the process as court-appointed witnesses.<sup>300</sup> In practice, however, the disadvantages of the role extend to them as well. First, party domination of the investigation and research—often extending back prior to the initiation of the law suit—puts the appointed expert several steps behind the partisan experts whose work she is supposed to evaluate or replicate. She will not have the same ready access to private information in the parties' possession. Second, party domination of the process of questioning places the appointed witness in an uncomfortable position, especially under rules (such as Federal Rule of Evidence 706)

298. Rule 706(a) provides that "[a] witness so appointed shall be informed of the witness' duties by the court in writing . . . or at a conference in which the parties shall have the opportunity to participate." Otherwise, it makes no reference to discussions with the witness in preparation for her assigned tasks. The Canon 3(A)(4) of the Code of Judicial Conduct prohibits any ex parte communication by a judge "concerning a pending or impending proceeding," "except as authorized by law. . . ." This prohibition probably includes ex parte communications with a court-appointed expert. *See United States v. Green*, 544 F.2d 138, 146 n.16 (3rd Cir. 1976) ("[t]he court should avoid ex parte communication with anyone associated with the trial, even its own appointed expert. . . ."); *WILLGING*, *supra* note 244, at 8.

299. The experience of the appointed expert in *Superior Beverage Co. v. Owens-Illinois, Inc.*, *supra* note 248, illustrates how isolated the role can be. The judge in that case appointed an economist, Professor Daniel Rubinfeld, to help her evaluate conflicting economic claims by the parties' experts with respect to a pretrial motion by the plaintiff to certify the case as a class action. Dr. Rubinfeld was contacted by the judge by telephone, and agreed to accept the appointment. He then received a written charge describing his task. From then on, the judge studiously avoided any direct dealings with Dr. Rubinfeld and routed even routine communications through her law clerk. The parties were equally stand-offish; Dr. Rubinfeld's only contacts with them were requests by him for information, and their responses. Ultimately Dr. Rubinfeld filed a report, and both sides filed written responses. He then testified at an evidentiary hearing in which he replied to their comments. Neither the judge nor the parties made any effort to prepare him for the hearing, and his testimony consisted primarily of self-directed narration, followed by a few questions from each side. Dr. Rubinfeld believes that the judge was careful to avoid any suggestion of improper contact with a witness, despite the fact that he had been appointed to help her make factual determinations on a non-jury issue. Telephone interview by Samuel R. Gross with Dr. Daniel Rubinfeld (Jun. 28, 1990 and Jul. 2, 1990).

300. *E.g.*, Guttmacher, *supra*, note 5; Lawrence Kubie, *The Ruby Case: Who or What Was on Trial*, 1 J. PSYCHIATRY & L. 475, 483-90 (1973).

that require her to be available for deposition by all parties, and provide that she may be called at trial and cross-examined by any party. To be sure, the appointed expert has a considerable advantage in a hostile examination—she is less assailable for bias than a partisan expert—but it comes at a price. The direction and nature of an attack are less predictable, and the neutral witness must face potentially hostile lawyers without the help that a friendly attorney can provide. In some respects, the role of appointed expert is just as unattractive to experts who scorn legal proceedings as the role of partisan expert, and in some respects it is even more unattractive.

In short, court-appointed experts are not used in American trials because they are beyond the control of lawyers. As a result, they threaten the prerogatives of the trial attorneys, and they are likely to be inadequately prepared for testimony and uncomfortably unpredictable. This explanation is supported by an examination of several contexts in which appointed experts are routinely used.

While neutral experts are rare in formal litigation, they are common in various administrative proceedings. Workers' compensation is probably the most interesting example for our purposes, both historically and substantively.

In the early part of this century, workers' compensation boards pioneered the use of appointed medical experts to provide evidence on injuries resulting from industrial accidents. In 1923, in the second edition of his treatise, Wigmore quoted at length from a report on the operation of such a system in Massachusetts, and commented: "How successful can be this type of measure when intelligently and consistently administered is demonstrated in one field where it is already in use . . . ." <sup>301</sup> In the current edition, published fifty-six years later, the same report remains as the sole example of an operating system of neutral experts, only now the comment refers to "one field where it *has long* been in use." <sup>302</sup> This is accurate. Many state worker compensation schemes have long provided for the use of impartial appointed medical experts, and these provisions are regularly invoked. <sup>303</sup> Substantively, it was reasonable to

301. 1 WIGMORE, *supra* note 233, § 563, at 969.

302. 2 WIGMORE, *supra* note 4, § 563, at 774 (emphasis added).

303. See, e.g., MORTON BERKOWITZ, *WORKMEN'S COMPENSATION—THE NEW JERSEY EXPERIENCE* 104 (1960); Myers, *supra* note 251, at 564-66; Ruth A. Yerion, *Expert Medical Testimony in Compensation Proceedings*, 2 L. & CONTEMP. PROBS. 476 (1935); Note, *The Impartial Medical Examination in Workmen's Compensation Litigation in Pennsylvania*, 34 TEMP. L.Q. 466 (1960).

Consider a single comparison: the peak year of the New York Medical Expert Testimony Project was 1953, when 133 personal injury cases were referred to project doctors. Levy, *supra* note 251, at 449 n.96. This amounted to perhaps 4% or 5% of all eligible cases. See *supra* notes 251-52. In 1952, however, the Workmen's Compensation Board of New York referred 163,910 claims to its own medical examiners, or 29%

suppose that this administrative practice could be transferred to court. The expert issues in workers' compensation cases, unlike those faced by some administrative tribunals, are not esoteric. Workers' compensation claims are simply a category of personal injury cases that are handled under a separate set of legal rules, and the medical issues they pose are identical to issues that occur regularly in ordinary civil litigation. But the graft did not take.

The reason for this failure is that while the medical issues in workers' compensation cases are the same as those in tort litigation, the procedures for deciding them are very different. California, the largest American jurisdiction, provides an example. The California Industrial Accident Commission processes an enormous number of cases. In 1970, for example, fewer than 100 workers' compensation judges handled about 56,000 original claims and 61,000 supplemental matters, including 74,156 formal hearings.<sup>304</sup> In evaluating these claims, neutral medical evidence can be obtained from three sources: the judge may refer a case to the medical bureau of the Division of Industrial Accidents; the judge may appoint an independent medical examiner; and a neutral doctor may be chosen by agreement of the parties.<sup>305</sup> In practice, the third option is the one most often used.<sup>306</sup>

Several factors make the use of neutral experts easier in these proceedings than in court. First, there are no juries. All claims are decided by administrative law judges, who develop considerable expertise in the medical issues that they face repeatedly. Second, the procedure in workers' compensation hearings is less formal than in court.<sup>307</sup> Third, and most important, neutral experts in workers' compensation cases do not, as a rule, *testify*; they write reports. Workers' compensation tribunals in California prefer to rely on written reports from all doctors, even those hired by the parties, supplemented (if necessary) by the transcripts of depositions.<sup>308</sup> Reports filed by any of the three types of neutral experts mentioned above, unlike reports by adversarial experts, are automatically deemed to be in evidence, and the doctors writing them

of all filings. Note, *supra* note 251, at 1027 n.32.

304. Milton Brooke, *Administering Workmen's Compensation Cases in California, Florida, Massachusetts, New Jersey, New York, and Wisconsin*, in 3 PETER BARTH ET AL., *SUPPLEMENTAL STUDIES FOR THE NATIONAL COMMISSION ON STATE WORKMEN'S COMPENSATION LAWS* 77, 89-90 (1973).

305. C. SWEZEY, *CALIFORNIA WORKER'S COMPENSATION PRACTICE* §§ 8.27-8.31, at 308-310 (Peyrat & Freiser eds., 3rd ed. 1985).

306. *Id.* § 8.27, at 308; Telephone interview by Samuel R. Gross with former Commissioner Gordon Gaines of the California Division of Industrial Accidents (August 15, 1986).

307. SWEZEY, *supra* note 305, § 1.9, at 6-7.

308. Brooke, *supra* note 304, at 89. SWEZEY, *supra* note 305, §§ 7.19, 7.20.

are rarely questioned by attorneys.<sup>309</sup> Under that procedure, preparation and control of the neutral expert by an attorney are not necessary and are not missed.

When appointed experts *are* used in formal litigation, their role tends to resemble the role of neutral medical experts in workers' compensation cases. On certain issues referrals to appointed experts are common, sometimes even the rule. For example, official experts—psychologists, psychiatrists and social workers—often provide evidence in child custody cases.<sup>310</sup> Similarly, court-appointed experts often provide psychiatric evidence on the present sanity of criminal defendants.<sup>311</sup>

In present sanity proceedings this practice may be used in part because it is economical. Neutral experts, of course, are always cheaper than adversarial experts, but our privatized system of civil litigation includes no mechanism to encourage that saving. Criminal cases are different. Since most criminal defendants are indigent, their experts, as well as the prosecution's, are paid by the state, which makes it easier for the courts to require both sides to use the less expensive method. Unfortunately, this judicial drive to economize may undermine the quality of the expert advice.<sup>312</sup> Child custody cases do not share this economic structure, but they are similar to determinations of present sanity in other procedural respects. In both of these types of cases the expert evidence is almost always received by a judge sitting without a jury, and the judge frequently relies on written reports rather than oral testimony. Obviously, it is comparatively easy to accommodate appointed experts in that sort of

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309. SWEZEY, *supra* note 305, §§ 8.26, 8.31. For comparable practice in other states, see, e.g., Yerion, *supra* note 303, at 481-82, 484; BERKOWITZ, *supra* note 303; 2 WIGMORE, *supra* note 4, § 563.

310. See CHILDREN, MENTAL HEALTH AND THE LAW 70-71 (N.D. Repucci et al. eds., 1984); Peter Ash & Melvin Guyer, *Court Implementation of Mental Health Professionals' Recommendations in Contested Child Custody and Visitation Cases*, 12 BULL. AM. ACAD. PSYCHIATRY L. 137 (1984); Anna M. Jackson et al., *Beyond the Best Interests of the Child Revisited: An Approach to Custody Evaluations*, 3 J. DIVORCE 207 (1980); Tahirih V. Lee, *Court-Appointed Experts and Judicial Reluctance: A Proposal to Amend Rule 706 of the Federal Rules of Evidence*, 6 YALE L. & POL'Y REV. 480, 491-92 (1988); Nadeau et al., *Child Custody: The Adversarial Process as a Vehicle for Clinical Services*, in CHILD CUSTODY DISPUTES 501 (G.E. Stollach & M.G. Lieberman eds., 1985).

311. For example, Mark Heyrman, former Executive Director of the Commission to Revise the Mental Health Code of Illinois, estimates that psychiatrists from the Cook County Court Psychiatric Unit are appointed to examine the defendant in virtually every present sanity determination in Cook County, Illinois, and that they are the only experts in the vast majority of cases. Telephone interview by Samuel R. Gross with Mark Heyrman (October 19, 1989). See also Henry Weihofen, *An Alternative to the Battle of Experts: Hospital Examinations of Criminal Defendants Before Trial*, 2 L. & CONTEMP. PROBS. 419, 421-22 (1935).

312. See *supra* notes 264-70 and accompanying text.



structure. It may also be that some judges who are completely content with adversarial experts for jury questions feel the need for neutral assistance when they must decide expert issues themselves.

Even the rare cases in which neutral experts are appointed in ordinary civil litigation usually fit this pattern. In the first two years of the New York Medical Expert Testimony Project, for example, appointed experts testified in only about 6% of the cases for which they wrote reports.<sup>313</sup> Similarly, a study of federal practice under Rule 706 found that for the most part, the few experts who were appointed were used for a variety of pre-trial and post-trial tasks, and not for "[w]hat one would expect to be the traditional function of court-appointed experts—the presentation of evidence at trial."<sup>314</sup> Of course, it is the "traditional" testimonial function that makes the role of the appointed expert so problematic. Where it can be avoided, the role itself becomes much less troublesome.

## V. DIRECTIONS FOR REFORM

The starting point for any serious discussion of reform is the recognition that expert information is categorically different from other types of information that we use in litigation, and that the functions of experts are fundamentally different from those of other people who provide information in court. It is not necessary to describe experts who participate in litigation as "witnesses" or to call the information they present "evidence," at least not in the usual legal sense of these terms. The range of procedural options for dealing with experts should not be limited by categories that were developed for other purposes.

The difference is rooted in the nature of the information. Lay evidence in a case can only come from a restricted set of happenstance witnesses, and concerns specific and limited sequences of events. This narrow range of sources and of content is reflected in a relatively narrow range of trial procedures that are used to handle this information. In every modern system of litigation, lay witnesses—people with pre-existing knowledge of relevant events—provide evidence to a neutral tribunal, which evaluates that evidence. The procedural rules that surround this process vary widely. The system may be adversarial or inquisitorial; the witnesses may talk directly to the tribunal or give information to official investigators; the tribunal may be a single judge, a jury, or a mixed court of professional and lay judges; and so forth. The essential elements of

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313. NEW YORK BAR, *supra* note 8, at 92-100. Under a comparable state-wide plan in Illinois, 8% of cases that were referred to court-appointed experts went to trial. Compere, *Unbiased Medical Evaluations*, 1967 PROCEEDINGS OF THE NAT'L MEDICOLEGAL SYMPOSIUM 14, 21.

314. WILLGING, *supra* note 244, at 18.

the process, however, are always the same—the identity of the witnesses, their role, and the role of the tribunal—and nobody has seriously suggested any alternative method, such as having the eyewitnesses to an event confer with each other and try to agree on what happened.

For expert evidence, the range of basic procedural choices is much greater. First, the experts who provide information must be selected. Will they be chosen by the parties, by the tribunal, by a separate entity—a board of experts, for example—or by some mechanical procedure such as chance or rotation or seniority? Second, the role of the experts must be defined. Are they witnesses, or advisers to the tribunal, or judges of issues within their special competence? Is their task to describe general findings and principles of their fields that are relevant to the case, or to evaluate information that is put before them, or to conduct new investigations? Third, the relationship between the experts and the tribunal must be specified. Are the experts' findings binding on the tribunal? May the tribunal resolve disputes between experts? May the tribunal ignore the experts entirely? Is the tribunal permitted (or encouraged) to attempt to educate itself on the expert issues at stake? Every possible answer to each of these questions appears as an element of some actual or proposed method of evaluating expert evidence.

The particular combination of elements that is found in common law litigation is unique. It is not used in other legal systems. Civil law courts, for example, employ official experts who act, in effect, as consultants to the court rather than as witnesses.<sup>315</sup> It is not used in other contexts in which we evaluate expert evidence in this society. Historically, it was not even the first method for using experts in common law courts; in the earliest recorded cases experts acted as jurors or judges.<sup>316</sup> By the end of the eighteenth century, however, common law practice had become more regular, and experts were settled in the witness box.<sup>317</sup>

In the context of common law procedure it makes a certain amount of sense to define experts as witnesses, since the other pre-existing roles are even less suitable. Common law judges are passive generalists, and jurors even more so. Experts fit that description even less than they

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315. M. CAPPELLETTI & J.M. PERILLO, *CIVIL PROCEDURE IN ITALY* (1965); John H. Langbein, *The German Advantage in Civil Procedure*, 52 U. CHI. L. REV. 823, 835-41 (1985); Morris Ploscowe, *The Expert Witness in Criminal Cases in France, Germany and Italy*, 2 L. & CONTEMP. PROBS. 504 (1935).

316. Lloyd Rosenthal, *The Development of the Use of Expert Testimony*, 2 L. & CONTEMP. PROBS. 403, 406 (1935); Henry Menin & Gary Charles Leedes, Note, *The Present Status of the Impartial Medical Expert in Civil Litigation*, 34 TEMP. L.Q. 476, 476 (1961). See also Herschel, *supra* note 5, at 573 (noting that in the earliest common law case employing an "expert witness," the expert probably still acted more as an impartial assessor).

317. 7 WIGMORE, *supra* note 4, § 1917, at 4; Rosenthal, *supra* note 316, at 410.

resemble ordinary witnesses; they are specialists, and they function best as active investigators. That leaves the role of advocate, but to cast experts as advocates would be the worst choice of all. Still, while the use of experts as witnesses may be the best of three bad options, it is a bad one nonetheless. If we want to solve the problems that this designation has created we must first recognize that the choice was artificially restricted. Experts should not be treated as witnesses in the ordinary sense, nor as judges or jurors, nor certainly as lawyers. Rather, experts should be treated as what they are—a separate category of participants in the presentation and evaluation of information in litigation.

In practice, the distinctive status of experts is universally understood. It is built into our system of litigation. We have an entire body of special rules of evidence and procedure (including some highly unusual ones) that apply only to expert evidence and that regulate every aspect of its production and presentation. It is reflected in the remarkable hostility that lawyers and judges display toward expert witnesses, and also in less conspicuous attitudes and behaviors. For example, a judge who would never consider conducting an *ex parte* investigation of the facts of a crash, might well read medical treatises at night to help her evaluate the injuries; she might even consult with doctors she knows. Somehow, in camera research into *expert* issues does not seem to be a grave violation of the norms of adversarial litigation, and the *rules* of judicial conduct in this area are murky.<sup>318</sup> In short, both our rules and our conduct already embody a tacit recognition that the labels "expert witness" and "expert evidence" are at best arbitrary, and often misleading.

Assuming, then, that we are free to fashion rules that are inconsistent with the existing definition of the role of experts in litigation, how might the present system be improved? I will discuss three categories of reforms.

*First*, I will consider two sets of reforms that could be implemented with minor changes in procedural rules, or none. Some of these procedures are already available, but rarely used; others would require substantial changes, but outside the realm of formal litigation.

*Second*, I will discuss two possible changes at the other end of the procedural spectrum, proposals that challenge basic premises of our adversarial method.

*Last*, I will focus on two reforms that fall somewhere in between these two categories, a pair of new versions of the ancient proposal to rely on court-appointed experts. One proposal would make court

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318. See, e.g., CODE OF JUDICIAL CONDUCT Canon 3(A)(4) (1972). If the judge actually consults an expert, the question under the Code is whether it is "concerning a pending or impending proceeding." *Id.* There are no code provisions that bear on a judge's right to consult general reference materials, or even specialized books and articles.

appointment mandatory for all expert witnesses, but give each party the right to designate experts for the court to appoint. The other would continue the current practice of using appointed experts alongside party experts, but the parties would be required to secure the appointment of a neutral expert as a precondition to some critical stage in litigation: discovering the opposition's expert evidence, or presenting their own. This second proposal also incorporates financial incentives for the parties to agree on the choice of the appointed expert or experts. Some of the proposals I discuss might present constitutional questions. It may well be that some of these procedures would be held to violate a criminal defendant's Sixth Amendment rights to trial by jury, to compulsory process, and to confront adverse witnesses. I do not address these questions in this Article. Instead, I simply assume (correctly, I think) that in civil cases at least none of these procedures would be open to serious challenge.<sup>319</sup>

*A. Reforms That Would Require Minor Changes In Procedural Rules, or None*

1. CHANGE THE MANNER OF PREPARATION AND PRESENTATION OF EXPERT EVIDENCE

Some of the problems I have discussed could be reduced, if not eliminated, without changing the basic structure of our use of expert information. It might be possible to reorganize our practice within that structure to make expert information less confusing and more instructive, and to limit the opportunities for deception and obfuscation. One simple step would be to change the conventional sequence of presentation of testimony so that the expert evidence on any issue would all be presented at one time. In most American jurisdictions, this is within the existing authority of judges to "exercise reasonable control over the mode and order of interrogating witnesses and presenting evidence so as to . . . make the interrogation and presentation effective for the ascertainment of the truth . . . ." <sup>320</sup> In addition, opposing experts could be required to testify in each other's presence, and permitted (or required) to respond to

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319. The one possible exception is the proposal to take expert issues away from juries. See *infra* notes 333-37 and accompanying text. This procedure could be held to violate the Seventh Amendment right to trial by jury in *civil* suits at common law. Such a holding would have limited direct impact, since the Seventh Amendment has never been applied to state-court trials, *Minneapolis & St. Louis R.R. v. Bombolis*, 241 U.S. 211, 217 (1916), but the same procedure might also be held to violate state-law counterparts to the Seventh Amendment. See Fleming James, Jr., *Right to Jury Trial in Civil Actions*, 72 *YALE L.J.* 655 (1963).

320. *FED. R. EVID.* 611(a); see also *CAL. EVID. CODE* § 765 (Deering 1991).

each other's evidence. A slightly more radical change in the same direction would be to permit opposing experts to ask each other questions. This would probably require new legal authority, and runs contrary to a tacit professional judgment that non-lawyers are too untrustworthy to control the presentation of evidence. Experts could, however, be required to submit questions to the judge in writing (as jurors do when *they* are allowed to question witnesses),<sup>321</sup> and trials would go on much as before.

Pre-trial preparation of expert evidence could be rationalized in more basic ways. The rules of discovery could be revised, or reinterpreted, to impose a duty on the proponent of expert evidence to provide that evidence to the opposing party before trial in a form that is as similar as possible to the one that will be used in court. The opponent could then be required to state any objections and raise any questions before trial. More important, the opposing experts on any issue could be required to meet before trial and exchange information. Unmediated discussion and debate between experts is the major method for resolving expert disputes in most non-legal settings; it could be useful even in the context of adversarial fact finding. In appropriate cases, the experts could be asked to agree on a common data base.<sup>322</sup> They could also be asked to produce a joint report that includes the following: definitions of key terms; a list and description of material issues on which they agree; a list and description of any material issues on which they do not agree; and responses to any specific questions addressed to them jointly by the court—including the identity of any non-partisan experts whom they agree are competent to evaluate the issues in dispute. A comprehensive program of this sort might require changes in the rules of procedure, but some aspects of this scheme are already used on occasion.<sup>323</sup>

There is no way to say in advance how effective these measures would be. Occasionally an innovative judge tries some procedure of this sort and later describes the experiment as a success.<sup>324</sup> This ought to encourage other judges to try similar experiments, but it cannot be taken

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321. See, e.g., HANS & VIDMAR, *supra* note 210, at 123-24.

322. ASSOCIATION OF THE BAR OF THE CITY OF NEW YORK, SPECIAL COMMITTEE ON EMPIRICAL DATA IN LEGAL DECISION MAKING, RECOMMENDATIONS ON PRETRIAL PROCEEDINGS IN CASES WITH VOLUMINOUS DATA (reprinted in PANEL ON STATISTICAL ASSESSMENTS, *supra* note 206).

323. See Jack B. Weinstein, *Improving Expert Testimony*, 20 U. RICH. L. REV. 473, 483-85 (1986); Symposium, *Science and the Rules of Procedure*, 101 F.R.D. 599, 604-05 (1983).

324. See *id.*; Weinstein, *supra* note 323. Cf. William Schofield, *Medical Expert Testimony: Methods of Improving the Practice*, 1 J. CRIM. L. & CRIMINOLOGY 41, 55-56 (1910) (a comparatively old proposal by a judge that opposing experts be required to meet before trial and exchange information, and a description of practice under such a system in Leeds in the late 19th century).

as a measure of the value of such procedures if they were used generally. On the other hand, these reforms are relatively easy to implement, would cost little or nothing (in fact, they would probably save some money) and pose no obvious dangers. The main obstacles to their use are inertia and habit.

## 2. INCREASE THE ACCOUNTABILITY OF EXPERT WITNESSES

One of the limiting features of our present system is its insularity; what an expert says in litigation is almost never exposed to a disinterested audience of the expert's professional colleagues. As a result, an expert witness is rarely held accountable to those who are best able to evaluate her evidence, and whose opinion may matter most to her career and to her vanity. Breaching this boundary would add a powerful incentive for care and for accuracy.<sup>325</sup>

The most thorough method of achieving this result would be a system of peer review of expert evidence, a modified version of the process that is already used by scholarly publications in most fields other than law. The triggering mechanism would have to be different, since no review board could ever screen *all* expert evidence in a field. It might be possible, however, to make this form of oversight available on request from a court or an opposing party, presumably, at a price. A review board of this sort could be asked to comment on a written report by the expert in question (if a report is available), or on testimony at deposition, or on testimony at trial. If the review is completed early enough it could be used in the very case in which the evidence is offered, at least informally; it would constitute one source of neutral expertise. Given the time it often takes to get to trial, that is a realistic possibility. If pre-trial production is not possible, the threat of exposure might still be influential, and an adverse report would be available if the same expert testifies in later cases.

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325. See PANEL ON STATISTICAL ASSESSMENTS, *supra* note 206; John Holschuh, *Advocacy in the Preparation and Presentation of Medical Evidence*, 21 OHIO ST. L. J. 160, 175-77 (1960); Harold S. Hulbert, *Psychiatric Testimony in Probate Proceedings*, 2 L. & CONTEMP. PROBS. 448, 452 (1935); Weinstein, *supra* note 323, at 484. The most conspicuous proposals in this area have been plans to discipline witnesses who are dishonest or incompetent. The best example of this genre is the "Minnesota plan" for reviewing medical testimony, adopted in 1940, and imitated in various other jurisdictions. Holsuch, *supra*, at 173-75; see also C. Joseph Stetler, *Medical-Legal Relations—The Brighter Side*, 2 VILL. L. REV. 487, 498-501 (1957); Irving Younger, *Expert Witnesses*, 48 INS. COUNS. J. 267 (1981). As far as I can tell, there is no evidence that these plans ever made much difference in practice, perhaps because they focused on punishing doctors in the extreme and rare cases of clear incompetence or outright fraud, rather than providing assistance in interpreting conflicting medical claims in the common situation where distortions and obfuscations are less clear cut.

A system of this type could be set up under existing practice, but it would be difficult. The reviews would be conducted outside the formal sphere of litigation, so no changes in the rules of procedure would be necessary. However, since expert evidence is dominated by oral testimony, the process would be expensive and cumbersome. On the other hand, if expert witnesses were required to present their evidence (at least initially) in written reports, the system might be comparatively simple and cheap, especially if the reports were available well in advance of trial.

In order to introduce a review of this sort in evidence, the proponent would have to overcome the objection that it is hearsay. In general, as we have seen, hearsay is not a successful objection to expert evidence,<sup>326</sup> but in this situation it might be sustained. There are exceptions that might apply,<sup>327</sup> but many judges would probably view such a report as just the sort of thing that the hearsay rule is designed to exclude—an unsworn and uncross-examined expression of opinion on a disputed factual issue—and rule that it is inadmissible. A straightforward solution would be to enact a special rule that makes such reports admissible. In any event, even if a review of expert evidence could not be introduced at trial, it could serve other valuable functions: as a basis for pre-trial settlement negotiations and mediation proceedings, as a guide for further investigation, and, in some circumstances, as a prod to get a judge to appoint a neutral expert witness.

This would be, at best, a limited remedy. A competent and impartial review is not a substitute for a competent and impartial investigation. In many cases—for example, when a doctor's medical opinion turns on a clinical examination of a patient—the most a reviewer will be able to say is whether the expert witness is operating within the range of professional acceptability. If nothing else, however, a detached description of the level of uncertainty that surrounds an expert issue would be a significant contribution.

A review procedure of this type depends on the cooperation of professional associations in the experts' own fields, in particular medical

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326. See *supra* notes 125-37 and accompanying text.

327. In a jurisdiction that follows the Federal Rules of Evidence, the most likely method of introducing a review of one expert's evidence would be as "facts or data" that formed a basis for the opinions of another expert who testifies in person. FED. R. EVID. 703. If the reviews were somehow "published" and became recognized as "reliable authorities" they could also be introduced during the direct or cross-examination of an expert witness under the "learned treatise" exception to the hearsay rule. FED. R. EVID. 803(18). If those exceptions were not available, some judges might still allow a cross-examiner to question an expert witness about such a review, even though the review itself is inadmissible, on the theory that such questions are within the broad scope of impeachment that is traditionally allowed for expert testimony. See *supra* notes 179-81 and accompanying text.

associations. Such groups might be interested in this role, if they are concerned about the use of their specialties in litigation. To the extent that they are concerned, they could help in other ways as well. They could formulate standards of practice to guide expert witnesses and those who evaluate them, covering anything from compensation to disclosure of data to other experts.<sup>328</sup> Explicit standards of conduct might have both a pedagogical effect—providing affirmative guidance to experts (some of whom, after all, are completely out to sea as witnesses)—and a deterrent effect, discouraging visible violations that could be used for impeachment. A professional association could also simply maintain records of expert evidence offered by witnesses in its field, and make those records available to lawyers in future cases, and to other professionals in the field who might want to evaluate the witnesses for other purposes. Even in the absence of a review procedure, the possibility of this sort of exposure might encourage expert witnesses to be candid and careful.

### *B. Reforms That Would Entail Major Changes in Adversarial Procedures*

#### 1. ELIMINATE ORAL TESTIMONY

One of the main difficulties with expert evidence is that it is usually presented as oral testimony. This format multiplies the cost of the process, maximizes the need for adversarial preparation and the distortions it generates, creates a market for expert witnesses with testimonial experience and persuasive demeanor, introduces numerous opportunities for manipulation, and scares off many useful experts. It also limits the possibilities for reform. It would be much easier, for example, to move to a system that regularly used neutral experts, or to create an external mechanism for reviewing expert evidence, if instead of undergoing the ordeal of direct and cross-examination in depositions and at trial, experts expressed their opinions in written reports. It might even be possible to achieve some of the benefits of scholarly discourse in the process of litigation. Experts could be required to submit their reports sufficiently in advance of trial to permit the opposing lawyers and experts to ask them thoughtful questions, in writing, and to permit the reporting experts to respond thoughtfully. If a case goes to a jury trial, the usual convention of oral presentation could be maintained by having the expert reports read to the jury, perhaps by the reporting experts themselves.

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328. PANEL ON STATISTICAL ASSESSMENTS, *supra* note 206, at 162; Weinstein, *supra* note 323, at 485-86.



Written reports by experts, like written reviews of expert evidence, are hearsay. In this case, however, there would not even be a claim that these reports fall within any existing exception to the hearsay rule. All of the plausible exceptions are special rules that permit the use of hearsay in the course of testimony by expert witnesses, while this plan is designed to eliminate oral testimony by experts entirely. To accomplish that purpose it would be necessary to enact a major new exception to the hearsay rule. Any proposal to that effect would be strenuously opposed by many trial lawyers.

The central argument in opposition would be that under this procedure an opposing party is denied the opportunity to cross-examine an expert who writes a report that is used in evidence. This is a serious objection, since our system of litigation relies heavily on cross-examination as the major method of testing the value of all evidence. The need for cross-examination of expert testimony seems particularly acute for two reasons. First, since such evidence is inevitably based on premises and information that are beyond common knowledge, few jurors will be able to spot errors and inconsistencies on their own. Second, since expert witnesses are likely to be both more partisan than non-party lay witnesses and more skilled at concealing their partisanship, cross-examination is essential to uncover the true value of their evidence.

Trial lawyers are touchy on this issue. They have argued bitterly against any use of court-appointed experts on the ground that it undercuts their ability to conduct *effective* cross-examination, despite the fact that all recent proposals for court-appointed experts explicitly provide that such a witness may be cross-examined by any party.<sup>329</sup> This proposal, by contrast, would eliminate *all* cross-examination of all experts, neutral and adversarial alike.

But is the need for cross-examination of experts really that great? It is certainly true that, at present, experts make extremely partisan witnesses, but is cross-examination the best method of dealing with that partisanship? Most lawyers seem to agree that the cross-examination of experts is (by comparison to other cross-examinations) a difficult, confusing and unreliable process.<sup>330</sup> It is also less necessary, even in the context of adversarial fact finding. Cross-examination is usually the *only* way to challenge the testimony of an eyewitness to an event; the opposing party can hardly go out and recruit new witnesses who saw what happened from the same vantage point. The opponent of an expert report can do just that, however, and informed comments by that competing expert are not only another way to attempt to dispute the first expert, they are a better way. From the point of view of the jury, the choice is this:

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329. See, e.g., FED. R. EVID. 706(a).

330. See *supra* note 194.

they can receive a set of mutually responsive reports, prepared in advance by the opposing experts, or they can watch those experts be examined and cross-examined by opposing lawyers in open court. Is there any serious question which process is more informative?

A milder version of this proposal could include the option of oral testimony. An expert witness would still be required to submit a written report which would be admissible in evidence, and the opposition would still be required to ask questions and raise objections in writing in advance. Nonetheless, the proponent could produce the expert to testify in person, and the opponent could require her to appear, paying her fee for the trouble. Both sides, however, would have to justify any attempt to raise orally any matter that was not already brought up in the written exchange.

This compromise would add to the cost and complexity of the proposal procedure, and it would dilute its advantages. Even in this format, oral testimony will increase the need for adversarial preparation, with its biasing consequences, and it will (to some extent) favor form over content. This version, however, also has several advantages. Doctrinally, it is a smaller step, and would be easier to enact than a procedure that restricts experts entirely to written reports. In particular, it might be construed as a permissible *limitation* on the right to cross-examine expert witnesses rather than a denial of cross-examination. This procedure might also make expert evidence easier to understand than a simple written report. The proponent and the expert could present her evidence in as vivid a manner as possible; the opponent could highlight any deficiencies in the evidence, and emphasize any questions that were not adequately answered in writing. Both sides would have the flexibility to raise unanticipated questions that surface during the trial itself.

The advantages of this proposal, in either version, depend to a great extent on a rough equality between the parties. If all the expert witnesses are on one side, the opposing party would probably be at a greater disadvantage than under current procedures. The lawyer on the other side could still raise objections to the experts' reports, and he could pose questions to them in writing before trial. In the absence of an expert of his own, however, he might have a harder time raising legitimate counter arguments than he would through the current method of cross-examination. This could be a serious problem in criminal cases, because the prosecution frequently has a monopoly on expert evidence, a pattern that is unlikely to change since it reflects a fundamental asymmetry in position

and resources.<sup>331</sup> In civil trials, however, experts on one side are generally opposed by similar experts on the other side.<sup>332</sup> If this proposal were adopted, that pattern would become even more common since expert assistance would become more important, and also cheaper and easier to use. As a result, disputes over expert issues would be increasingly dominated by debates between among experts, which, though not easy to resolve, are certainly preferable to cat fights between experts and lawyers.

## 2. ELIMINATE JURIES

The institution of trial by jury is a serious obstacle to reform in the use of expert evidence. The problem is not that juries are worse than judges at evaluating expert evidence. There is no strong reason to believe that is so, and sometimes (as in the *Wells* case)<sup>333</sup> judges are clearly at least as bad. Rather, the difficulty is that the rigid procedural requirements of jury trials inhibit innovation, or at least judges seem to think so. All of the proposals I have discussed—changes in the format and sequence of testimony, neutral experts, written expert evidence—would be far easier to implement if the trier of fact were the judge.

In theory, this obstacle could be removed. Expert issues could be taken away from juries and decided by judges. Such a redistribution of power could be viewed as an expansion of the existing authority of judges to judicially notice facts that are "not subject to reasonable dispute,"<sup>334</sup> although in this new area the issues at stake are often undeniably disputable. Alternatively, this change could be viewed as redrawing the limits of the right to a jury trial, at least in civil cases, to exclude the determination of expert issues.

Under any label, this is a more radical proposal than the others I have mentioned. The use of court-appointed experts has been fought on the polemical ground that it compromises the right to trial by jury,<sup>335</sup> but in this instance that claim would be literally true. The ideological costs of such a move would be great, probably insurmountable.

In addition, the proposal presents severe practical difficulties. Some uncommon types of expert witnesses, such as experts on the psychology

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331. In addition, this proposal presents at least two other problems in the context of criminal prosecutions: (1) it may violate the defendant's Sixth Amendment right to confront and cross-examine witnesses, *see supra* text accompanying note 319; (2) it presupposes a type of broad pretrial discovery that is not now generally available in criminal cases. *See supra* note 79.

332. *See supra* text accompanying notes 18-19.

333. *See supra* notes 21-39 and accompanying text.

334. FED. R. EVID. 201(b).

335. *See supra* notes 260 and 279 and accompanying text.

of eyewitness identification, testify solely to help the jury interpret other evidence. That role has no place in this scheme. More frequently, there are questions for which expert and non-expert issues are deeply interwoven—the causes of an industrial accident, the damages for pain and suffering, etc. It might be impossible to separate these issues and assign them to different decision makers; at a minimum, it would require abandoning the use of general verdicts and submitting special verdicts or factual interrogatories to the jury instead. Worse, this proposal would create a new issue for pre-trial litigation—the scope of the jury issues in each case—and a new avenue for procedural manipulation. In short, as long as juries are widely used to decide civil cases, taking expert issues away from them will not work as a general remedy to the problems of expert evidence.

On the other hand, it would be simple to assign particular expert issues to judges. Specifically, we could redefine the issue of an expert's qualifications as a purely preliminary question, and prohibit the jury from hearing any evidence on it. This would save some time, eliminate a substantial form of posturing, encourage more experts to participate in the process and (given the way credentials are manipulated in court) deprive the jury of little information of value, if any.<sup>336</sup> A more modest change in the same direction would be to require the judge to decide the foundational question of qualifications outside the presence of the jury, and to prohibit the direct examiner from using evidence of qualifications to bolster the witness's testimony. An opposing party could still attempt to impeach the expert with evidence of weak qualifications, but, as with other forms of impeachment by character evidence, such an attack would open the door for the proponent of the expert to rehabilitate the witness with favorable evidence on qualifications.<sup>337</sup> Since most expert witnesses have impressive sounding credentials, this option to impeach would probably rarely be used.

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336. See *supra* text following note 65, notes 138-51 and accompanying text. Some commentators have also suggested that the standards for qualifying expert witnesses ought to be tightened. Barry M. Epstein & Marc S. Klein, *The Use and Abuse of Expert Testimony in Product Liability Actions*, 17 SETON HALL L. REV. 656, 667-69 (1987); Edward J. McDermott, *Needed Reforms in the Law of Expert Testimony*, 1 J. CRIM. L. & CRIMINOLOGY 698, 699 (1911). That proposal would have, at most, a marginal effect on existing practice, since most expert witnesses already have qualifications that are much stronger than the required minimum. It is a good idea, however, assuming the higher standards require more *knowledge* rather than more *credentials*. It would make sense to put it into effect in tandem with a plan to restrict consideration of qualifications to the judge.

337. See, e.g., FED. R. EVID. 608(b).

*C. Court-Appointed Experts Revisited*

The most appealing solution to the problem of partisan expert evidence is still the oldest: use court-appointed experts. The logic of this procedure is so strong, in the abstract, that it invariably surfaces in every discussion of the issue. For example, when I circulated an earlier draft of this Article, half-a-dozen intelligent and helpful colleagues offered as many versions of the same suggestion: "Why don't we just [do X]?", where X (in some manner) boils down to: "get judges to appoint neutral experts." Indeed, why not?

The answer is that in practice the use of neutral experts is a persistent failure. Judges simply do not do it, and attempts to change that fact have been uniformly ineffective. Demonstrating the logic of the procedure has not worked. Enacting rules that codify the courts' authority to appoint experts has changed nothing. Exhorting judges to do so has had no effect. Even assembling panels of able and willing experts has made little difference in the short run, and none over the long haul. The lesson is clear. Conceptually, this may be the best reform, but if we want courts to actually appoint experts on a regular basis we must devise a procedure that is quite different from those that have already been tried.

The essential flaw in the existing schemes for appointment of experts is the absence of incentives to use them. Appointed experts are never required; they are a luxury that can be added to the existing apparatus. Judges, even lawyers, may favor the practice in principle, but in the heat of a particular case appointed experts are always dispensable. Worse, both judges and lawyers have strong motives to avoid them. Judges do not want to take on the tasks of seeking out witnesses and shaping their evidence, either because they lack the time and resources (or think they do), or because they feel it would be inappropriate, or for both reasons. Lawyers are disturbed by witnesses they cannot control. A voluntary procedure for appointing witnesses may be an attractive vehicle for obtaining impartial expert evidence; however, between the passivity of judges and the hostility of trial lawyers, it has no motor.

The solution is obvious, at least in general terms: make the use of court-appointed experts mandatory. The simplest way to do so would be to limit expert testimony to witnesses chosen by the court. The judge might make these choices on her own, or she might consider the suggestions of the parties or the nominations of some outside body; one way or another, all expert witnesses would be selected in a non-partisan fashion. Experts who are retained by the parties would be restricted to providing information to the appointed experts, who would consider it in the process of preparing and presenting their own evidence.

Unfortunately, this simple and direct approach will not work. An absolute restriction to court-chosen experts fits neatly into the framework of civil-law litigation, where the court is primarily responsible for

obtaining evidence of all sorts. The same procedure, however, would be irredeemably foreign in a common law court, where the adversaries are in charge of every other aspect of the preparation and presentation of evidence. The existing procedures for court appointment are ignored, in part, because they require judges to play a more active role in the development of evidence than our judges are prepared or equipped to do. To make that same system mandatory and exclusive would magnify the problem: How would judges choose all those experts? Who would provide the experts with the information they need, and under what circumstances? Who would prepare their testimony? Restricting testimony to court-chosen experts would also amplify the objection that by choosing the witness the judge is determining the outcome of the case. In the absence of competing experts, a court-appointed witness may indeed be unassailable.

As a practical matter, any workable mandatory method of using court-appointed experts in American courts must leave the parties free to call expert witnesses of their own choosing. In addition, it must: (1) provide incentives for the parties to get the court to make the appointments, and to call the appointed experts at trial; and (2) relieve judges of the obligation, and the power, to select the appointed experts. If these requirements are met, judges and trial lawyers can be trusted to develop reasonable methods of providing the appointed experts with information, and of preparing their testimony.

As far as I know, there are no previous proposals that focus on these criteria. I have developed two, both in preliminary form.

#### 1. RESTRICT EXPERT TESTIMONY TO PARTY-CHOSEN COURT-APPOINTED EXPERTS

There are five elements to this proposal:

(a) *To testify as an expert, a witness must be court-appointed.*

This amounts to a redefinition of the role. Experts will still function as witnesses, but under court auspices rather than as partisans. An expert who is appointed may be called as a witness by any party or by the court, and may be cross-examined by any party.

(b) *The court must appoint any qualified and willing expert who is designated by a party.*

Under this plan, judges might on occasion appoint experts of their own choosing. In general, however, the choice of the expert witnesses would remain with the parties. An opposing party could object that a proposed expert is unqualified, or that her evidence is immaterial. Beyond resolving these issues, the court's control would be limited to

restricting the number of expert witnesses, an area in which judges already have the discretion to limit party autonomy.<sup>338</sup>

(c) *The parties, their attorneys, their experts, and other party representatives, may communicate freely with an appointed expert witness provided the communications are open to all sides.*

The parties and their lawyers will have to work with the appointed experts, both to assist the experts and to prepare their testimony. The purpose of this provision is to transform the preparation of expert evidence from a confidential and partisan process into an open proceeding. Under this plan, a party that communicates with an expert witness in writing, or sends documents to an expert to review, would be required to send copies to all other parties; a party that meets with an expert witness in person would have to give all other parties adequate notice and a reasonable opportunity to attend; and so forth. Lawyers may find this strange at first, but they will have to do it since there will be no other method of presenting and preparing expert evidence. Under this procedure, the current practice of adversarial discovery of the evidence of expert witnesses might be virtually eliminated. Occasionally, it will be necessary to permit a party to take the deposition of an expert witness. However, since the entire process of preparation would be open to all sides, that ought to be a rare exception to the general practice.<sup>339</sup>

(d) *A party may not designate an expert who is employed by that party, or who has learnt any facts relevant to the case from that party, or who is employed by or has learnt such facts from any person with similar interests.*

This provision is necessary to protect the openness of the preparation of expert evidence. Employees of parties, or experts who are familiar with the case through contact with the parties, are ineligible to testify as expert witnesses, but they may present information to appointed experts, and they may testify as non-expert witnesses if that is appropriate. The

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338. Under this proposal the qualifications of an expert, as a precondition for expert opinion testimony, would be determined by the court at the time of appointment. Although it is not an essential part of the proposal, I would suggest that juries hear no evidence on qualifications beyond a minimal description of the expert's field and her essential credentials, or (at most) that any additional evidence on qualifications be restricted to impeachment and to rehabilitation following impeachment. *See supra* notes 336-37 and accompanying text.

339. By contrast, Rule 706(a) of the Federal Rules of Evidence now provides that "the [appointed] witness' deposition may be taken by any party."

main purpose of this restriction is to prevent parties from first preparing experts privately and only then designating them for appointment.<sup>340</sup>

To illustrate, consider the possible sources of medical evidence in an ordinary personal injury law suit. The treating physician would normally be ineligible for appointment as an expert witness since she would have already learnt about the issues in the case in private dealings with the plaintiff. (This is a change that most doctors would probably greet with a sigh of relief.) She might, however, have unique information that would make her a necessary non-expert witness; for that purpose, she could be subpoenaed to testify and deposed in pre-trial discovery like any other lay witness. She might also contribute valuable *expert* information in the form of reports, notes, records, and oral communications to the expert witnesses in the case.<sup>341</sup>

If the plaintiff's attorney is not entirely satisfied with the information from the treating physician, he might send the plaintiff to a consulting physician for an examination. The report of that doctor would, in the first instance, be non-discoverable. Similarly, the defendant might obtain an order—under Rule 35 of the Federal Rules of Civil Procedure, or similar provisions—requiring the plaintiff to submit to an examination by a consulting physician of the defendant's choosing. Following Rule 35, a report of that examination would be available to the plaintiff, on condition that she provide the defendant with similar reports of any comparable examinations by her own consulting physicians.<sup>342</sup> The consulting physicians on both sides could not testify as expert witnesses, but their reports could be used in settlement negotiations.

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340. There is one logical exception to this provision. A party who qualifies as an expert herself, and whose expertise is relevant to her position in the litigation, should be allowed to testify to expert opinions without appointment, and should be treated in discovery and preparation simply as a party. The typical witness in this category will be a medical malpractice defendant.

There is also no reason to preclude a party from designating an expert who has learnt some facts about the case from the opposing side. If that were sufficient to disqualify an expert, one party might be tempted to consult with experts strategically in order to preclude the opposition from designating them for appointment. Also, since the plan contemplates that the parties will locate qualified experts who are willing to testify, they would be permitted to contact experts and give them some minimal information about the case, but that is all. Alternatively, the function of contacting prospective expert witnesses could be performed by a court official.

341. This plan could be expanded to create a separate category of witness for the "occurrence expert," "whose information was not acquired in preparation for trial but rather because he was an actor or viewer with respect to transactions that are part of the subject matter of the lawsuit." FED. R. CIV. PRO. 26(b)(4) advisory committee's notes on 1970 amendment 80 F.R.D. 411, 414. That does not seem necessary, however, given that such an expert can both testify to her observations, as a lay witness, and provide expert opinions to appointed expert witnesses.

342. See *supra* note 91.



If this non-judicial process does not resolve the dispute about the plaintiff's medical condition, the court will ultimately be asked to appoint one or more expert witnesses. The appointed experts will conduct their investigations openly. They may examine the plaintiff themselves, they may review information from the treating physician, and they may consider evidence from the parties—including reports by the parties' consulting physicians. If they do consider such reports, the doctors who wrote them will become available for normal adversarial discovery; unlike the expert witnesses, their work is potentially highly partisan.

Most cases, of course, will not involve information from all three classes of experts. In some instances there will be no pre-litigation experts; in many, the claim (or the expert issues) will be settled after reports by consulting experts; in others, the parties will seek the appointment of expert witnesses without first obtaining confidential expert advice.

*(e) An appointed expert will be paid a reasonable fee by the court from funds provided by the parties in such proportions and at such times as the court directs, and thereafter expert expenses will be charged in like manner as other costs.*

This provision is derived from Rule 706(b) of the Federal Rules of Evidence, except that it specifies that all payments go through the court. The initial division of payments between the parties ought to reflect the proportion of the expert's time that each party consumes. In general, the designating party (or parties) should be charged for the time the expert spends on general background work and routine preparation, and each party should pay for any additional work the expert does at that party's instigation—tests, research, preparation for trial, testimony, etc. Ultimately, the losing party may be required to pay (or repay) the entire bill. Although the parties will have to foot the bill for court-appointed experts, they ought to have no complaint on that ground. The experts will be of their own choosing, and the fees they pay through the court will almost certainly be smaller than the amounts they now pay expert witnesses directly.

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The first thing to notice about this proposal is what it does *not* do. It does not eliminate partisan selection of expert witnesses. Each side can still choose expert witnesses because it believes that they will testify favorably and effectively. That, however, is a defensible function of advocacy in an adversarial system: to obtain divergent opinions that reflect the range of positions held by experts in the field. Under present rules the parties can do much more—they can *distort* the expert information on an issue. They can screen experts by confidential consultations before they retain them; they can cultivate the experts' partisanship by paying them high fees, by working long hours with them in private, and by integrating them into their litigation teams (or seeming to do so); they

can limit and shape the information the experts receive; they can weed out those experts whose conclusions turn out to be insufficiently helpful; and they can choreograph the experts' presentations to maximize their partisan value. These practices, which have no parallel for other types of evidence, cannot be justified on the ground that they provide the jury with the best, or the widest range, of available evidence. In fact, they do the opposite. None of these options is available under this proposed procedure.

The second conspicuous aspect of this plan is that it answers all the major criticisms of previous attempts to encourage the use of appointed experts.<sup>343</sup> It does not entangle the judge in the selection of witnesses; as a rule, they are selected by the parties. It poses no special danger for testimony on an issue that divides a specialty into two or more schools of thought; each party can designate an expert from the school it favors. It confers no special status on any particular expert; all expert witnesses are court-appointed, and even an expert who is chosen by the judge will be seen by the jury in the same light as the rest. As a result, the proposal creates no special difficulties for the cross-examination of any particular group of experts.

Trial lawyers may complain that this scheme will reduce their effectiveness, since they cannot know what an expert will say if they are not allowed to talk to her in advance. This is partly true. Parties will still be able to gather information freely from *non-testifying* experts. They may hire experts (before or after the initiation of litigation) to run tests, conduct investigations, and write reports; if they wish, they may transmit this information to the expert witnesses. In addition, the lawyers may confer with the *expert witnesses* before they decide which of them, if any, to call at trial—but only *after* those witnesses have been designated by the parties and appointed by the court. One purpose of the plan is to prevent lawyers from pre-screening expert witnesses on the basis of the experts' opinions about the case at hand. It *will* reduce the lawyers' control over expert evidence; that is one of its virtues. As things stand, lawyers have far too much power to control the content of expert testimony. I intend no criticism of lawyers. We play our roles as we should, given the rules, but the evidence suffers nonetheless.

Lawyers might also complain that under this procedure they will no longer be able to impeach an expert whose testimony they oppose by pointing out her identification with a competing party. That is correct. Experts will no longer be party witnesses. Parties will still be able to choose expert witnesses (albeit with no assurance that they will not live to regret their choice), just as, in some proceedings, they can choose arbitrators, or attempt, with greater or lesser success, to influence the

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343. See *supra* notes 259-62 and accompanying text.

choice of jurors. An arbitrator or a juror does not become the creature of the party that brought her into the case. What makes expert witnesses the partisans we now see is the role they are assigned *after* they have been chosen. Under this plan, that role is changed entirely. Expert witnesses will be employed by the court, and all parties will have equal and open access to them. Given their new role, there is no reason to let the jury know which party designated which expert in the first place.

This proposal does not change the procedure for impeaching an expert who may in fact be partial. The fact that an expert has been appointed on the nomination of a party or its lawyers—in this or in past cases—should not, in itself, be considered biasing given the public nature of the function. On the other hand, the fact that the expert has testified repeatedly in a manner favorable to a particular party, or favorable to one side in similar cases, would be evidence of bias. Similarly, an expert could be impeached with evidence of a pre-existing relationship to a party or its lawyers outside the context of the case, as a former employee, consultant, friend, etc. Impeachment on these grounds will have greater force in a world in which we no longer assume that *all* expert witnesses are untrustworthy.

This plan does not depend on successful searches for impartial witnesses. Each party to a trial will, naturally, try to identify experts who will advance its interests. Under these rules, however, they will have to make these choices with less advance information, and they will be less able to control and manipulate the experts during pre-trial preparation. If the scheme works it will produce expert evidence that is less filtered and distorted than we now see.

Unfortunately, the plan might not work. It might even backfire. I see two potential dangers. First, the success of the plan depends to a great extent on the openness of the pre-trial preparation of experts. It might be difficult and costly to police that process, and it could break down. Second, and worse, party selection of experts under these circumstances could produce unfortunate results. Lawyers who are obliged to choose expert witnesses without first talking to them might gravitate to those experts who will most predictably favor their side, the sure bets. If worst comes to worst, this procedure could generate a market for experts who are so entrenched in their biases that they are known quantities.

This pessimistic scenario is not inevitable. The proposal might work well as it stands, or it might be possible to modify and improve it. The most I can say is that in its present form, this plan entails significant risks.

## 2. COMPEL THE PARTIES TO SECURE THE APPOINTMENT OF NEUTRAL EXPERTS

My second proposal has four main elements:

(a) *A litigant must secure the appointment of a neutral expert as a precondition to undertaking a specified step in the preparation or presentation of expert evidence.*

Under this plan the existing adversarial procedures for dealing with expert evidence are retained, but a new requirement is added—the appointment of a neutral expert. There are two plausible points at which this condition might be imposed: discovery (when expert evidence is first revealed to the opposition), and testimony (when the evidence is finally presented in court). At either point, the required act is simple. A party that wishes to present expert testimony, or to discover the expert evidence of another party, must first move the court to appoint a neutral expert who is qualified to testify on the relevant issues.

(b) *On motion by a party, the court must appoint a neutral expert.*

Since a party is required to obtain the appointment of a neutral expert in order to proceed, the court cannot have discretion to deny a motion to appoint such an expert.

(c) *Experts will be chosen for appointment by agreement of the parties, or of the parties' nominees.*

In some cases, choosing a neutral expert will be easy. If the parties agree and the expert is willing, the court should normally be required to honor their choice. The trick, of course, is to devise a simple mechanical substitute for the cases in which the parties do not agree. The following procedure seems promising:

(i) A party that moves for the appointment of a neutral expert must submit to the court, under seal, a list of names of experts who are suitable for appointment. Any other party may also submit such a list. It might be helpful for the court to specify a minimum number of names for these lists—three, four or five perhaps—although in some unusual circumstances the number of available experts might be too small to permit such a requirement. Experts who have already worked on the case, or who are related to or employed by a party, are ineligible. (ii) The court may appoint any expert whose name appears on all party lists.<sup>344</sup> (iii) If no expert appears on all lists, the court will designate one expert from each list as a "selection committee,"<sup>345</sup> and then appoint any expert chosen by that committee. This procedure does not require a meeting of the selection committee. The judge, or a clerk, could simply call each

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344. If there are two or more such experts, the court should use some arbitrary method for choosing between them—chance, or some simple ordering principle.

345. Again, some simple arbitrary method should be used to select the expert from each list who will be on the selection committee.

member of the committee by telephone and ask for the names of other experts in the field who are suitable for appointment. The court would then appoint any expert who is named by all members of the committee. Occasionally it may be necessary to try a second time. In that case the court could ask the committee members to submit more names, or ask them to meet and discuss the issue face-to-face, or choose a second selection committee from the party lists.

(d) *Appointed experts will be paid by the parties on terms that provide substantial incentives to the parties to agree on the choice of neutral experts, or to list reasonable choices for the court.*

The selection procedure I have described could be cumbersome. What if courts are routinely required to create selection committees? Worse, what if the members of those committees do not readily agree on common names of other experts? These are realistic dangers. The intrinsic centrifugal forces of adversarial litigation could drive many attorneys to attempt to obstruct the process of appointment, and to list experts who may be almost equally obstructive. If that happens, this proposal will become difficult and costly to implement. For the plan to work smoothly it needs to include incentives for the parties to agree on neutral experts, or at least to name agreeable experts in their sealed lists. A simple device might be sufficient:

(i) In general, the appointed expert's fees and the associated expenses will be initially paid by the parties under court direction. In the usual case, the court will order the moving party to pay for most of the expert's time, and other parties to pay for time spent working with them or at their instigation. At the conclusion of the case, all the fees and expenses of appointed experts may be charged as costs to the losing side. (ii) *However*, if an appointed expert is chosen by a selection committee, that expert's fees and expenses will only be paid by, and may only be charged as costs to, those parties that submitted lists that did not include the appointed expert's name.

In other words, a party that submits a list that does not include the appointed expert's name may pay a substantial penalty. In a common two-party case, if the opposing party did list the expert who is ultimately chosen, then the party that failed to do so will be entirely responsible for that expert's fees and expenses.

The strategies for avoiding this penalty are straightforward. First, the parties can agree to the designation of a particular expert. Second, if a party does not submit a sealed list of experts, it is not at risk. In that situation, the choice will be made from the lists of the other parties; in a two-party case the court will have only one list before it, that of the moving party. Third, a party that submits a list can reduce its risk by naming many experts rather than few, and by naming plausible unbiased experts. Both moves increase the probability that the expert ultimately chosen will be on that party's list; they also increase the probability that

one or more experts will be on *all* parties' lists, or (failing that) that the selection committee will include experts who quickly converge on common names. The aim of this structure is to create a context in which most appointed experts are chosen by agreement of the parties, and most of the remainder are selected from overlapping lists. It may well work.

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This plan is much less novel than the previous one. It does not change the role of expert witnesses in general, or limit what parties can do with their own experts. The proposal does no more than revive the dormant existing provisions for the appointment of experts by making them mandatory, and by providing a routinized and efficient method of selection. It does not present the complex risks that are inherent in the proposal to restrict all expert testimony to party-chosen court-appointed experts.

Needless to say, this scheme, like the previous one, is immune to the fatal vice of the present practice. If it is enacted, it will be used. In addition, this proposal, like the last, addresses the major complaints against the existing procedures. The judge will not choose the appointed experts, or even initiate the process of appointment, so court-appointed witnesses cannot be criticized as the judge's minions, or as exercising undue influence over the court. Better yet, since appointed experts will be chosen by a process of agreement between the parties (or agreement-by-proxy), there ought to be few complaints about those who are selected. In the rare case where a party claims, nonetheless, that an appointed expert is biased or represents one side of a professional division, that party can ask for the appointment of a second expert.

Since this plan is no more than a mandatory version of current procedures for court appointment, it shares the vagueness of these existing provisions. The role of the appointed expert is not defined, and, unlike the previous proposal, it is not dictated by the structure of the procedure. Specifically, the plan does not specify *when* an expert must be appointed, *what* the appointed expert should do, or *who* will help her prepare to perform her task.

On the first issue, my initial preference is to require that an expert be appointed before discovery. Discovery is a more predictable stage of litigation than testimony, and it comes earlier. Early appointment might produce settlements in some cases that would otherwise be tried. The only countervailing argument that I see is that this procedural choice would lead to more frequent court appointments, which will add to the cost of litigation. This might be true, but it is not obvious. I would predict the opposite: that the fees paid to appointed experts will be more than offset by savings. Some cases will settle that otherwise would have been tried, and the presentation of *adversarial* expert evidence will be simpler and cheaper in those cases that do go to trial.

What the expert does after appointment will depend in large part on the stage at which the appointment is made. If she is appointed prior to discovery, the expert might act initially as a neutral master in charge of the discovery process. Indeed, it might be possible under this plan to replace the current system of discovery of expert evidence with a "disclosure system." The parties would be required to provide information to the court-appointed witness on any expert evidence they intend to present, after which the appointed expert would prepare a report on the expert evidence on all sides. A neutral expert would be in a good position to understand and interpret the information she receives, and to seek additional information if she is not satisfied with a party's submission or if an opposing party raises legitimate questions about it. If a case goes to trial, the appointed expert's main role would be to comment on the expert evidence that the parties present. If the neutral expert is not appointed until after discovery, then the parties ought to be required to submit pre-trial reports that detail the expert evidence they intend to present in court.

The problem of witness preparation is a serious obstacle to the appointment of experts under the present rules.<sup>346</sup> Under this plan that problem will evaporate. As things stand, appointing an expert is not only discretionary, but rare. In this setting, a judge who is considering making an appointment may be deterred by a unified wall of hostility from the attorneys who must prepare and present the case. Under rules that require appointment in every appropriate case, the judge will have no choice to make, and the lawyers will quickly learn to make the most of the appointed witness regardless of their initial attitudes toward the procedure. By the time trial approaches the appointed expert will have written a report describing her views, and, except in rare cases, one side or another will know that her testimony will advance that party's case. It will be in the interests of the favored party to call the appointed expert at trial, and to prepare her testimony on the same terms as it would prepare testimony by any other favorable witness who is not within the party's control.

A couple of technical provisions would facilitate the process. The rules should make it clear that any party, or the judge, may confer with an appointed expert to prepare trial testimony, provided all sides are given adequate notice and an opportunity to attend. It would also help to provide that an appointed expert may testify by reading from a prepared report, or that such a report may be introduced directly in evidence. This would simplify the preparation in all cases. It would be particularly helpful in cases where the appointed expert has little time to confer with attorneys, or where she is called by the judge rather than a party.

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346. See *supra* notes 295-300 and accompanying text.

## CONCLUSION

As lawyers, we are deeply enmeshed with experts. We hire them in great numbers. We cast them in important roles in most trials, and as the central players in many. We pay them large fees and spend numerous hours preparing and directing them. And yet, for all that, we present expert evidence that is frequently misleading, uninterpretable or unreliable, and we hold the witnesses who give it in contempt. Despite the prominent position of experts in American trials, we have fallen prey to what Roscoe Pound once called "that exaltation of incompetency and distrust of special competency in special fields which seem to be the unhappy by-products of democracy."<sup>347</sup>

This is a big problem. Many cases turn on it, and much money changes hands. It is also, as noted at the beginning of this Article, an ancient problem. In the past, the use of expert evidence has resisted correction time after time. All major attempts at reform, however, have been variations on a single theme: the discretionary use of court-appointed experts who operate outside the process of adversarial fact finding. This is barren ground. In our system of litigation, virtually all resources and incentives are adversarial. Giving judges the option to disregard this reality is predictably ineffective; they know better.

In the previous Section, I have discussed a variety of reforms that do not fit this mold. In particular, I have proposed two very different mandatory procedures for using court-appointed experts. Proposing is a far cry from implementing, but it is a start just to find a new way to look at a recalcitrant old nuisance.

The best hope for real change is that procedural reforms will generate supporting structures, attitudes, and modes of behavior. Expert testimony is a sizeable cottage industry that is geared entirely to provide effective partisan evidence.<sup>348</sup> New procedures might change the nature of the demand for the services of experts. At a minimum, partisanship would not be quite so salient. Beyond that, the new forms of practice may produce a positive demand for neutral expertise, and create an opportunity for experts to fill it. More important, these procedures might

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347. Roscoe Pound, *Justice According to Law*, 13 COLUM. L. REV. 696, 701 (1913).

348. To get a very rough idea of the size of the enterprise, consider the following: judging from the data reported above, there are over 4600 appearances per year by expert witnesses in civil superior court jury trials in California. See *supra* notes 18-20 and accompanying text. This probably translates into something over 40,000 appearances per year in civil jury trials in state courts of general jurisdiction across the country. The total volume of all forensic work by expert witnesses—including bench trials, federal cases, criminal cases, administrative proceedings, and work on the vast ocean of litigated cases that do not come to trial—must be at least ten times greater again, and the total annual fees must reach into the hundreds of millions of dollars, if not beyond.



change the legal culture within which expert witnesses function. Lawyers will probably be no happier working with experts who are court-appointed, court-paid, and available equally to all parties. At first, at least, they will undoubtedly be less happy. Lawyers may, however, come to regard expert testimony as honest work rather than prostitution—perhaps even as a form of public service—and they, and judges, and experts may learn to act accordingly.