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EXPERT WITNESS MALPRACTICE: A SOLUTION TO THE PROBLEM OF THE NEGLIGENT EXPERT WITNESS

*Carol Henderson Garcia**

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"The evidence never lies," so the old adage states. However, persons who analyze and interpret the evidence may testify falsely about their qualifications or their analyses, or they may negligently perform analyses or make errors in interpreting evidence. Consider three examples. In Wyoming, a man spent three years in jail after being convicted of murdering his girlfriend.¹ He won a new trial and was acquitted after a forensic pathologist reexamined the case and determined that the coroner's ruling that the death was a homicide and not a suicide was errone-

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1. See *infra* note 73 for information on the case.

ous.² In New York, investigative journalists exposed the false credentials of the deputy director of a crime lab, who had testified many times as an expert serologist.³ He was arrested on three felony perjury counts and ultimately pled guilty to three misdemeanor counts and resigned from various professional organizations.⁴ In North Carolina, officials had to reexamine 159 criminal cases because local officials discovered fingerprint misidentifications.⁵ Two murder charges were dropped after reevaluating the evidence.⁶ Expert malpractice is a problem that threatens the integrity of the justice system.

This article explores the issue of expert witness⁷ malpractice. The article discusses ways in which the legal and scientific communities have responded to the problems of expert witness malfeasance. The article concludes with the assertion that expert witnesses owe their clients certain duties based upon their professional

2. *See id.*

3. *See infra* notes 99-100 and accompanying text.

4. *See id.*

5. *See infra* notes 110-11 and accompanying text.

6. *See id.*

7. Black's Law Dictionary defines "expert witness" as "[o]ne who by reason of education or specialized experience possesses superior knowledge respecting a subject about which persons having no particular training are incapable of forming an accurate opinion or deducing correct conclusions One who by habits of life and business has peculiar skill in forming opinion on subject in dispute." BLACK'S LAW DICTIONARY 578 (6th ed. 1990).

knowledge and skills similar to those duties owed clients by other professionals⁸ such as doctors,⁹ engineers,¹⁰ accountants,¹¹ architects,¹² and attorneys.¹³

I. INTRODUCTION

Most scientific or professional disciplines provide expert testimony in courts. Product liability suits often involve engineering questions. Personal injury suits almost always require medical testimony. "Some [criminal] cases virtually cannot be tried without the assistance of experts"—homicide (in which the cause of death is determined by forensic pathologists), arson (in which fire marshals and chemists may testify about the origin and cause of the fire), forgery (where document examiners determine the authenticity of writing) and possession or sale of controlled substances (where toxicologists or chemists determine the chemical nature of the substances).¹⁴ The National Center for State Courts conducted a nationwide survey to determine the extent and nature of the use of expert testimony, and in particular, the introduction of scientific evidence.¹⁵ Almost half of the attorneys responding to the survey encountered scientific testimony in a third of their

8. Note that a cause of action for clergymen malpractice has not succeeded. See *Nally v. Grace Community Church*, 763 P.2d 948 (Cal. 1988), *cert. denied*, 490 U.S. 1007 (1989). Nor have "educational malpractice" claims succeeded. See, e.g., *Moore v. Vanderloo*, 386 N.W.2d 108 (Iowa 1986).

9. "The prevailing professional standard of care for a given health care provider shall be that level of care, skill, and treatment which, in light of all relevant surrounding circumstances, is recognized as acceptable and appropriate by reasonably prudent similar health care providers." FLA. STAT. ANN. § 766.102(1) (West Supp. 1991). See also W. PAGE KEETON ET AL., *PROSSER AND KEETON ON THE LAW OF TORTS* § 32 (5th ed. 1984) [hereinafter KEETON et al.].

10. See John C. Peck & Wyatt A. Hoch, *Engineers' Liability—State of the Art Considerations in Defining Standard of Care*, TRIAL, Feb. 1987, at 42.

11. "When conducting an independent audit for a client, an accountant must provide auditing services with reasonable care, in good faith, without fraud or collusion." Alan F. Garrison, Note, *Common Law Malpractice Liability of Accountants to Third Parties*, 44 WASH. & LEE L. REV. 187 (1987). See generally John A. Siliciano, *Negligent Accounting and the Limits of Instrumental Tort Reform*, 86 MICH. L. REV. 1929 (1988). In the area of accounting malpractice, there are three basic approaches to liability: (1) *Ultramares Corp. v. Touche*, 174 N.E. 441 (N.Y. 1931), requires that the accountant know specifically that the third party acts in reliance on the information; (2) recovery by third parties depends on whether the accountant intends or knows that the client intends to supply others with information regardless of the accountant's knowledge of the particular identity of the third party; and (3) *Rosenblum, Inc. v. Adler*, 461 A.2d 138 (N.J. 1983), permits recovery by parties who are reasonably foreseeable recipients of reports for business purposes. Other courts have embraced the expanded liability approach of *Rosenblum*. See, e.g., *Touche Ross & Co. v. Commercial Union Ins. Co.*, 514 So. 2d 315 (Miss. 1987).

12. See NATHAN WALKER ET AL., *LEGAL PITFALLS IN ARCHITECTURE, ENGINEERING AND BUILDING CONSTRUCTION* (2d ed. 1979).

13. "A lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation." MODEL RULES OF PROFESSIONAL CONDUCT Rule 1.1 (1987). "An attorney must possess the skill and knowledge possessed by other members of the profession, and must execute the business entrusted to his professional management with a reasonable degree of care, skill, and dispatch. If he fails to possess such care, skill, and dispatch, he is responsible to his client for any loss resulting therefrom. The attorney's duty to his client in this regard is to be measured by the community standards of professional conduct prevailing in the community in which he does his work." 4 FLA. JUR. 2d § 168 (1986).

14. MICHAEL J. SAKS & RICHARD VAN DUIZEND, *THE NAT'L CENTER FOR STATE COURTS, THE USE OF SCIENTIFIC EVIDENCE IN LITIGATION* 8 (1983) [hereinafter SAKS & VAN DUIZEND].

15. Edward J. Inwinkleried, *The "Bases" of Expert Testimony: The Sylogistic Structure of Scientific Testimony*, 67 N.C. L. REV. 1 (1988) (citing *Study to Investigate Use of Scientific Evidence*, NAT'L CENTER FOR STATE COURTS REPORT, Sept. 1980, at 1).

cases.¹⁶ "[C]ourts demand, and juries expect, that physical evidence will be properly collected and analyzed, and that the results will be available for examination at trial by objective forensic scientists."¹⁷

There has been a corresponding proliferation of witness brokers and clearing-houses¹⁸ and a virtual explosion in the so-called "expert witness industry."¹⁹ According to Yale Law Professor Geoffrey C. Hazard, "[i]t's an escalation on the level of military preparedness."²⁰ This expert witness "explosion" and resulting abuse²¹ of the system has greatly concerned the scientific²² and legal²³ communities. People are beginning to question whether experts are merely "hired guns" rather than truth tellers. "[M]any are expressing uneasiness about the influence

16. *Id.* at 1.

17. Irving C. Stone, *Capabilities of Modern Forensic Laboratories*, 25 WM. & MARY L. REV. 659 (1984).

18. *Expert Witnesses: Booming Business for the Specialists*, N.Y. TIMES, July 5, 1987, at 1, 13 [hereinafter *Booming Business*]. "The Technical Advisory Service for Attorneys, established in 1961 and based in Fort Washington, Pa., is one of the oldest and largest of such enterprises, with a reported annual growth rate of about 15 percent. According to its president, Edwin H. Sherman, the service has developed a nationwide list of about 10,000 experts grouped in 4,000 categories." *Id.* The National Forensic Center in Princeton, New Jersey lists thousands of experts in their annual Forensic Services Directory, which is also published electronically on LEXIS and WESTLAW computer systems.

19. *Booming Business*, *supra* note 18, at 13.

20. *Id.* at 1.

21. "The abuse consists in introducing overstated opinions by unqualified witnesses, based on unproven theories or insufficient facts. That sort of expert testimony creates the same potential for miscarriage of justice as the rankest lay testimony. Worse still, since the lay attorneys and jurors lack the witnesses' expertise, it is less likely that they will detect the fallacies in the witnesses' testimony." EDWARD J. IMWINKELRIED, *THE METHODS OF ATTACKING SCIENTIFIC EVIDENCE* 496 (1982).

22. Ordway Hilton, *A New Look at Qualifying Expert Witnesses and the Doctrine of Privilege for Forensic Scientists*, 17 J. FORENSIC SCI. 586, 587 (1972) [hereinafter Hilton]. Hilton states that the courts have: meager guidelines for the evaluation of witnesses' qualifications . . . [and] the courts are in need of help in screening witnesses so that well-qualified experts can actually assist the court in perplexing technical questions, and the unqualified will not unwittingly confuse justice. The courts of a number of countries maintain a list of qualified experts in particular fields of forensic science. . . . [Such a list of experts could be created in the U.S.] with the aid of recognized leaders in the field, but with the final decision in the hands of the courts. As with the legal profession the courts could create a "disbarment" proceeding for the occasional nonethical expert witness.

Id. at 587-88.

23. See Barry M. Epstein & Marc S. Klein, *The Use and Abuse of Expert Testimony in Product Liability Actions*, 17 SETON HALL L. REV. 656 (1987).

Most recently, the United States Attorney General's Tort Policy Working Group expressed its concern about the "increasingly serious problem" involving

reliance by judges and juries on noncredible scientific or medical testimony, studies or opinions. It has become all too common for "experts" or "studies" on the fringes of or even well beyond the outer parameters of mainstream scientific or medical views to be presented to juries as valid evidence from which conclusions can be drawn. The use of such invalid scientific evidence (commonly referred to as "junk science") has resulted in findings of causation which simply cannot be justified or understood from the standpoint of the current state of credible scientific and medical knowledge. Most importantly, this development has led to a deep and growing cynicism about the ability of tort law to deal with difficult scientific and medical concepts in a principled and rational way.

Id. at 656-57 (citation omitted).

In June 1989, the Defense Research Institute sponsored the first "National Invitational Conference on Unreliable Expert Witness Testimony." See Andrew Blum, *Experts: How Good Are They?*, NAT'L L.J., July 24, 1989, at 1.

and cost of expert witnesses as well as the looseness of the qualifications establishing someone as an expert."²⁴

II. THE EXPERT WITNESS "EXPLOSION"

There are three reasons for the expert witness "explosion": the loosening of the standards of admissibility of scientific evidence; Americans' love of science and awe of scientists; and attorneys' need, both actual and perceived, to call in specialists to aid them at trial.²⁵ Perhaps the most significant of the three explanations for the expert witness explosion was the liberalization of the Federal Rules of Evidence in 1975. Expert witnesses no longer need to possess academic degrees in areas in which they are called to testify. Witnesses may now testify to their opinion if it will assist the trier of fact. Experts may now give testimony based on no more than their familiarity with the subject matter.²⁶

The test of admissibility under Federal Rule of Evidence 702²⁷ has "led to the admission of opinions that are so nontechnical that they are best described as 'quasi-expert,' rather than expert, testimony."²⁸ "[M]any such [experts] present

24. *Booming Business*, *supra* note 18, at 13. See *Glover v. United States*, 708 F. Supp. 500 (E.D.N.Y. 1989), where Judge I. Leo Glasser issued a stern warning to lawyers against allowing so-called "expert" witnesses to testify who in reality have no competence to render the opinions they are asked to render; and *In re Air Crash Disaster v. Pan American World Airways*, 795 F.2d 1230, 1234 (5th Cir. 1986), where Judge Higginbotham criticized the district court's admission of expert testimony.

In the field of questioned document examination there are more unqualified or poorly qualified expert witnesses testifying on problems than in any other branch of the forensic sciences. Virtually anyone who can profess some familiarity with handwriting and typewriting examination is able to qualify in the eyes of the trial judge. Not even formal academic education or a baccalaureate degree is necessary. Handwriting teachers, typewriter repairmen, bank personnel, even housewives who have taken a correspondence course in graphology or grapho-analysis (character reading) can claim such knowledge and have been permitted to testify. Some have barely any knowledge of the fundamental principles involved in this complex field.

Hilton, *supra* note 22, at 587.

25. See Bert Black, *A Unified Theory of Scientific Evidence*, 56 *FORDHAM L. REVIEW* 595, 599 (1988).

26. See *Gill v. Northshore Radiological Ass'n*, 409 N.E.2d 248 (Mass. App. Ct. 1980) (unnecessary for expert to be a specialist in the area concerned).

27. FED. R. EVID. 702 states that "[i]f scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise." *Id.*

The Standing Committee on Rules of Practice and Procedure of the Judicial Conference of the United States has proposed some changes to Federal Rule of Evidence 702. (The words crossed through are contained in the present rule, and the underlined words are the proposed amendments to the rule.) The preliminary draft of the proposed amendment states:

If Testimony providing scientific, technical, or other specialized knowledge-information, in the form of an opinion or otherwise, may be permitted only if (1) the information is reasonably reliable and will substantially assist the trier of fact to understand the evidence or to determine a fact in issue, — and (2) the witness is qualified as an expert by knowledge, skill, experience, training, or education to provide such testimony, may testify thereto in the form of an opinion or otherwise. Except with leave of court for good cause shown, the witness shall not testify on direct examination in any civil action to any opinion or inference, or reason or basis therefor, that has not been seasonably disclosed as required by Rules 26 (a)(2) and 26(e)(1) of the Federal Rules of Civil Procedure.

PRELIMINARY DRAFT OF PROPOSED AMENDMENTS TO THE FED. R. CIV. P. AND THE FED. R. EVID. 83 (Comm. on Rules of Practice and Procedure of the Judicial Conference of the U.S. 1991). The revision was intended to limit the use, but increase the reliability, of expert testimony.

28. Jack B. Weinstein, *Improving Expert Testimony*, 20 *U. RICH. L. REV.* 473, 478 (1986) [hereinafter Weinstein].

studies and express opinions that they might not be willing to express in an article submitted to a refereed journal of their discipline or in other contexts subject to peer review."²⁹ The growing acceptance of the relevancy approach³⁰ and movement away from the "general acceptance" test for admissibility established in *Frye v. United States*³¹ has resulted in judges and juries increasingly weighing the scientific merits of theories and techniques they may find strange and confusing.³²

The trial courts have broad discretion in determining what qualifications experts must have and what subjects they may address in their testimony. This discretion is, in most jurisdictions, not subject to appellate review absent a clear showing of abuse.³³ Federal and state courts adhere to the rule that "the trial judge has broad discretion in the matter of the admission or exclusion of expert evidence, and his action is to be sustained unless manifestly erroneous."³⁴ As early as 1867 the appellate courts determined that "[i]t was for the court in the first instance to determine whether these witnesses possessed sufficient skill to entitle them to give an opinion as experts [I]t is for the jury to determine what weight should be given to such evidence"³⁵

The second explanation for the expert witness "explosion" lies in the significance of science in our traditions and popular culture. Judges and jurors have certain expectations regarding scientific evidence. It has been said that science is the American Faith.³⁶ "We believe in things that can be proven. We test our cars for safety, our children for health, and our employees for drug use."³⁷

Celebrated trials such as that of Wayne Williams³⁸ in Georgia, William Kennedy Smith in Florida,³⁹ or Jeffrey Dahmer in Wisconsin⁴⁰ have so raised the pub-

29. *In re Air Crash Disaster v. Pan American World Airways*, 795 F.2d 1230, 1234 (5th Cir. 1986).

30. This approach weighs the probative value of evidence against countervailing dangers and considerations. Paul C. Giannelli, *Evidentiary and Procedural Rules Governing Expert Testimony*, 34 J. FORENSIC SCI. 730, 735-36 (1989). See also Margaret A. Berger, *A Relevancy Approach to Novel Scientific Evidence*, 26 JURIMETRICS J. 245 (1986).

31. *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923). The *Frye* "general acceptance" test for admissibility of novel scientific evidence is drawn from the oft-quoted language of the case:

Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.

Id. at 1014.

32. Edward J. Imwinkelried, *Science Takes the Stand: The Growing Misuse of Expert Testimony*, 26 SCIENCES Nov.-Dec. 1986, at 20, 23 [hereinafter Imwinkelried, *Science Takes the Stand*].

33. See, e.g., *Hill v. State*, 507 So. 2d 554 (Ala. Crim. App. 1986); *Kruse v. State*, 483 So. 2d 1383 (Fla. Dist. Ct. App. 1986); *Crawford v. Shivashankar*, 474 So. 2d 873 (Fla. Dist. Ct. App. 1985); *Hawthorne v. State*, 470 So. 2d 770 (Fla. Dist. Ct. App. 1985).

34. *Salem v. United States Lines Co.*, 370 U.S. 31, 35 (1962) (citation omitted).

35. *State v. Ward*, 39 Vt. 225, 236-37 (1867).

36. John Veilleux, *The Scientific Model in Law*, 75 GEO. L.J. 1967 (1987).

37. *Id.*

38. *Williams v. State*, 312 S.E.2d 40 (Ga. 1983).

39. *State v. Smith*, No. 91-5482 (Palm Beach Co. Cir. Ct. Dec. 11, 1991). See generally *New Smith Evidence a Puzzle; Information Doesn't Back Either Side*, NEWSDAY, July 26, 1991, at 5.

40. *State v. Dahmer*, No. F-9-12542 (Milwaukee Co. Cir. Ct. Feb. 12, 1992); see generally, *The Door of Evil*, PEOPLE, Aug. 12, 1991, at 32.

lic's expectation of scientific proof at trial that many prosecutors now feel obligated to call forensic experts to the witness stand to explain why physical evidence is absent.⁴¹ The unexplained absence of such evidence may lead jurors to conclude that the prosecution has failed to make its case. The media has influenced the public's expectations of the strength of scientific evidence through its dramatization of such evidence.⁴²

Seventy percent of judges and lawyers indicate that juries attribute more credibility to scientific evidence than other evidence, and seventy-five percent believe that judges find scientific evidence more credible.⁴³ Jurors tend to give undue weight to experts' opinions because "we're all taught to believe science is infallible."⁴⁴ Professor Steven Goldberg notes that when he asks his Law and Science seminar students to write down the name of the most brilliant person who ever lived, scientists are most frequently named, followed by artists and musicians, an occasional vote for Freud, and the great philosophers such as Plato.⁴⁵

Some studies have supported the argument that jurors are impressed by scientific evidence.⁴⁶ It has been found that the expert source of the testimony, rather than the number of sources or witnesses, may have the more significant effect on verdicts.⁴⁷ Even the courts have noted that "scientific proof may . . . assume a posture of mystic infallibility in the eyes of a jury of laymen" ⁴⁸ There is a concern that juries give too much weight to scientific evidence and may, rather

41. Imwinkelried, *Science Takes the Stand*, *supra* note 32, at 23.

42. A study of 1,500 jurors regarding fingerprint evidence found that 71.9% of jurors' primary sources of knowledge of fingerprints comes from television and newspapers. U.S. DEP'T OF JUSTICE, JURIES, FINGERPRINTS AND THE EXPERT FINGERPRINT WITNESS 15 (1987). Unfortunately the media does not always accurately portray forensic evidence. An example is *The Naked Lie*, a made-for-T.V. movie in which a warrant for the arrest of a murderer is obtained based upon a single bloody hair and a voiceprint. In reality, neither would be a positive indicator of the identity of a suspect. See also Robert M. Jarvis, *Serial Killers and the Silver Screen: Mixing Up Fact and Myth*, presented at American Academy of Forensic Sciences 41st Annual Meeting (February 16, 1989) (expressing concern about the accuracy of forensic information as portrayed in serial killer movies).

43. SAKS & VAN DUIZEND, *supra* note 14, at 5-6 (citation omitted).

44. Amy DePaul, *The Rape Trauma Syndrome: New Weapons for Prosecutors*, NAT'L L.J., Oct. 28, 1985, at 1, 20 (quoting defense attorney Jim Kemper). Note that "the stereotype of the scientist as a high-minded seeker of the truth is being cast aside by some of the latest literature. Science is not a monastic calling but a tough political game in which the scientists are howling, scrapping alley cats." Robert Kanigel & Geoffrey Cowley, *The Seamy Side of Science*, 28 SCIENCES July-Aug. 1988, at 46, 47.

45. Steven Goldberg, *The Reluctant Embrace: Law and Science in America*, 75 GEO. L.J. 1341 (1987). Interestingly, no student ever names a lawyer. Professor Goldberg has also "asked the same question of scientists, musicians, and others, and the result is always the same. No one ever names a lawyer." *Id.*

46. See Steven M. Egesdal, Note, *The Frye Doctrine and Relevancy Approach Controversy: An Empirical Evaluation*, 74 GEO. L.J. 1769 (1986); Elizabeth F. Loftus, *Psychological Aspects of Courtroom Testimony*, ANNALS N.Y. ACAD. SCI. 27 (1980). See also Edward J. Imwinkelried, *The Standard for Admitting Scientific Evidence: A Critique from the Prospective of Juror Psychology*, 28 VILL. L. REV. 554 (1982-83) [hereinafter *Juror Psychology*].

47. See, e.g., Kurt Ludwig & Gary Fontaine, *Effect of Witnesses' Expertness and Manner of Delivery of Testimony on Verdicts of Simulated Jurors*, 42 PSYCHOL. REP. 955-61 (1978). In one particular study, "jurors" heard testimony delivered by either a physician, a police officer or lay person as witness. *Id.* The "case" involved criminal charges and the specific testimony concerned the intoxication of the victim at the time of the incident. *Id.* The "witnesses" delivered the testimony against the "defendant" in either an opinionated or non-opinionated manner. *Id.* Results indicated that verdicts and sentences were most severe following testimony given by the police officer. *Id.* The study was based on 68 undergraduate subjects. *Id.*

48. *United States v. Addison*, 498 F.2d 741, 744 (D.C. Cir. 1974).

than rely upon their own cognitive skills to evaluate and weigh all other evidence, overestimate its probative value.⁴⁹

According to two studies of the uses and effects of forensic science,⁵⁰ on the average, police are about three times more likely to solve cases when scientific evidence is gathered and analyzed.⁵¹ "Prosecutors are less likely . . . to enter into plea negotiations if forensic evidence strongly associates the defendant with the crime [In addition], sentences tend to be more severe when forensic evidence is presented at trials."⁵² Juries consider scientific evidence trustworthy, and not subject to human emotions and distortion.⁵³ A quarter of the jurors surveyed in one study said that without forensic evidence, they would have decided the case differently (usually an acquittal instead of a guilty verdict).⁵⁴ In the cases in which expert witnesses testified, they were ranked the most persuasive of all witnesses.⁵⁵

Finally, the high degree of informational and technological specialization in our society makes the use of expert witnesses imperative. Expert witnesses can provide a trier of fact with the tools by which it can better understand the issues to reach an intelligent decision. However, if the trier of fact's knowledge is so limited that it cannot make a considered decision on its own, it is completely dependent on whatever opinions and conclusions are expressed by the expert. Experts for each side of the controversy may present sharply different views, and the trier of fact must sort through these conflicting opinions to make its decision. As a result, the work is often based on the jurors' or judge's perceptions as to which expert is the most qualified, has the most prestigious credentials or is the most well-known writer or lecturer in a particular field. The fact finders are sometimes misled by the experts.⁵⁶ As Judge Weinstein has said, "[I]t is naive to expect the trier of fact to be capable of assessing the validity of diametrically opposed testimony."⁵⁷ "As society becomes more complex and technologically oriented, the lay fact finder's ability to comprehend scientific evidence becomes increasingly suspect."⁵⁸ While there are exceptions,⁵⁹ few courts are willing to simply disbelieve scientists.

49. *Juror Psychology*, *supra* note 46, at 562.

50. Forensic science is the application of science to matters of law. PETER DEFOREST ET AL., *FORENSIC SCIENCE AN INTRODUCTION TO CRIMINALISTICS* 1 (1983).

51. Joseph L. Peterson, *Use of Forensic Evidence by the Police and Courts*, NAT'L INST. OF JUSTICE: RESEARCH IN BRIEF, Oct. 1987, at 2.

52. *Id.*

53. *Id.*

54. *Id.* Rape cases involving semen evidence were usually the ones in which jurors considered forensic evidence crucial.

55. *Id.*

56. Weinstein, *supra* note 28, at 482.

57. 3 JACK B. WEINSTEIN & MARGARET A. BERGER, *WEINSTEIN'S EVIDENCE* § 706[01], at 706-09 (1991).

58. John W. Wesley, Note, *Scientific Evidence and the Question of Judicial Capacity*, 25 WM. & MARY L. REV. 675, 679 (1984) [hereinafter Wesley].

59. *Johnston v. United States*, 597 F. Supp. 374 (D. Kan. 1984). The court stated, "[t]his Court is disappointed with the apparent fact that these so-called experts can take such license from the witness stand; these witnesses say and conclude things which, in the Court's view, they could not dare report in a peer-reviewed format." *Id.* at 415.

A judge's skill and knowledge should enable him or her to comprehend complex scientific evidence more easily than jurors who may lack extensive formal education. However, a trial judge's education does not necessarily provide the technical skills necessary to fully comprehend complex scientific evidence.⁶⁰ "Trial judges . . . rarely have a technical background. Accordingly, the trial judge . . . may fail to fully comprehend complex scientific evidence."⁶¹ Appellate courts may also be uninformed regarding scientific developments.⁶² It is rare that a judge goes to extraordinary lengths to become educated in scientific matters when faced with a scientific or technical trial.⁶³ Perhaps as Judge Higginbotham stated, "it is time to take hold of expert testimony"⁶⁴

In this age of specialization, attorneys are constantly searching for those experts who can testify to matters which will either prove a client's innocence or negate a client's guilt or liability. Unfortunately, many of those in the growing pool of experts were not what they appeared to be.⁶⁵ Even those experts whose credentials were impeccable began feeling the pressure from the legal community to state opinions based upon the outcome desired by the attorneys and not upon the actual facts in the case.⁶⁶ The incredible monetary gain to be had by providing a "good" opinion exerted additional pressure upon the experts.⁶⁷ "[S]ome will say anything people want to hear if they are paid enough."⁶⁸

Compounding the problem is the lack of standards of care in some experts' fields by which to measure their performance.⁶⁹ Also lacking is a consistent system of peer review for expert witnesses.⁷⁰ When the standards set are sufficiently

60. The Judicial College in Reno, Nevada has recently added forensic science courses to its curriculum.

61. Wesley, *supra* note 58, at 685.

62. For example, in *State v. Sharbono*, 563 P.2d 61 (Mont. 1977), the Montana Supreme Court repeatedly referred to the gas chromatograph as the gaschrome-biograph and even referred to a non-existent gaschrome-biography journal.

63. An excellent illustration of enlightened judicial practice was provided by Judge Finesilver in the swine flu cases where plaintiffs sued the United States for complications resulting from vaccines. See, e.g., *Gundy v. United States*, 728 F.2d 484 (10th Cir. 1984); *Kynaston v. United States*, 717 F.2d 506 (10th Cir. 1983).

He was assigned to try all such cases in each of the district courts in his circuit. During the course of a year, he settled or tried over one hundred cases, attaining expertise in the process by listening to many expert witnesses on both sides and by studying all the literature. In addition to his readings, he attended a course dealing with related problems in the local medical school, enabling him to better understand the scientific issues and terminology.

Weinstein, *supra* note 28, at 495.

64. *In re Air Crash Disaster v. Pan American World Airways*, 795 F.2d 1230, 1234 (5th Cir. 1986).

65. See *infra* notes 72-167 and accompanying text.

66. Michael H. Graham, Note, *Expert Witness Testimony and the Federal Rules of Evidence: Insuring Adequate Assurance of Trustworthiness*, 1986 U. ILL. L. REV. 43, 45.

67. Bachner, J., *ENR Management and Labor*, Oct. 23, 1986, at 40.

68. *Id.*

69. See, e.g., Saul Boyarsky, Standard of Care: Straight or Wavy Lines, Presented at the American Academy of Forensic Sciences 41st Annual Meeting (Feb. 17, 1989). Some professions have responded to the proliferation of "hired guns" by producing documents outlining professional standards. See, e.g., *The Association of Engineering Firms Practicing in the Geosciences' Document: Recommended Practices for Design Professionals Engaged as Experts in the Resolution of Construction Industry Disputes*, THE EXPERT WITNESS J., July 1989, at 1.

70. See *infra* notes 182-86 and accompanying text.

high, the efforts of professional groups may be sufficient to convince the courts to refuse to permit the testimony of marginal experts.⁷¹

III. THE PROBLEM OF NEGLIGENCE AND FRAUD IN THE EXPERT COMMUNITY

While the focus of this article is expert witness negligence, the problem of expert witness fraud also needs to be addressed. Contrary to what many legal practitioners think,⁷² fraud and negligence⁷³ by experts is a serious problem. One need only read the newspapers or scan NEXIS⁷⁴ to see overwhelming evidence of the extent of the problem.⁷⁵

Fraudulent credentials, research fraud, and negligence by experts are not recent phenomena. One of the earliest and best known instances of scientific fraud is the case of Cyril Burt's falsified studies on the inheritability of intelligence.⁷⁶ Burt believed intelligence was inherited; his theory was that the children of wealthy, educated families did better on intelligence tests than the children of working-class families.⁷⁷ Beginning in the 1930's, his research, including studies of identical twins separated at birth, supported his contention.⁷⁸ His work was a standard of psychological research for over thirty years until Dr. Leon Kamin looked at Burt's data and noticed that it had a remarkable property — as Burt kept increasing his sample size throughout his lifetime the statistical results remained identical to the third decimal place, a statistical impossibility.⁷⁹

Studies on the phenomena of research fraud generally reflect a range of views from one that scientists are 99.99% pure, to the view that over 90% of scientists

71. See William W. Willis, *The Expert Witness*, IDENTIFICATION NEWS, May 1983, at 7.

72. See, e.g., Brief for Amicus Curiae Washington Defense Trial Lawyers, *Bruce v. Byrne-Stevens & Assoc. Eng'r, Inc.*, 776 P.2d 666 (Wash. 1989) (No. 55250-9).

73. See, e.g., Frank E. James, *Local Coroners' Lack of Forensic Training Raises Issue of Fitness*, WALL ST. J., Dec. 16, 1988, at 1. In this article Mr. James recounts many instances of incompetence with disastrous consequences. One example is the Wheatland, Wyoming case of Martin Frias, who was convicted of the murder of his girlfriend. *Id.* Mr. Frias was eventually granted a new trial and was acquitted after a forensic pathologist reexamined the case and determined that the coroner's ruling that the death was a homicide and not a suicide was erroneous. *Id.* Mr. Frias spent three years in jail as a result of the negligence of the coroner. *Id.*

Incompetence has been cited by the respondents to studies of forensic experts and ethics as the most serious of the ethical problems facing forensic scientists. Michael J. Saks, *Prevalence and Impact of Ethical Problems in Forensic Science*, 34 J. FORENSIC SCI. 772, 780 (1989).

74. NEXIS is an automated database produced by Mead Data Central which offers access to the full text of wire services, magazines, and newspapers. For detailed information on obtaining and using NEXIS, see *Guide to NEXIS and Related Services* (1986).

75. See Joan E. Van Tol, *Detecting, Deterring and Punishing The Use of Fraudulent Academic Credentials: A Play in Two Acts*, 30 SANTA CLARA L. REV. 791 (1990) [hereinafter Van Tol].

76. See L.S. Hearnshaw, *Cyril Burt, Psychologist* (1979). But, for a view disputing the fraud charges against Burt, after reexamination of the circumstantial evidence, see Ronald Fletcher, *Science, Ideology, and the Media: The Cyril Burt Scandal* (1991).

77. *Id.*

78. *Id.*

79. *Scientists Who Cheat* (PBS television broadcast of NOVA production, Oct. 25, 1988).

"had direct or indirect knowledge of intentional bias including data massage and research fabrication."⁸⁰

A. False or Fraudulent Credentials

Many instances of expert witnesses' false or fraudulent credentials have recently come to light.⁸¹ During the 100th Congress, hearings were held on scientific fraud and misconduct before the House Subcommittee on Human Resources and Intergovernmental Relations.⁸²

Attorneys have an obligation to investigate the credentials of expert witnesses to avoid perjurious testimony;⁸³ however, such verification is not always sought.⁸⁴ It is not always convenient for a court or an attorney to investigate the credentials of expert witnesses while contending with their full-time schedules. Instead, experts are often hired by attorneys or accepted by the courts based upon their current position, status or reputation. Experts' credentials are often accepted at face value even though the information was supplied by the expert with little or no independent verification. For example, the Deputy Director of the Suffolk County New

80. Patricia K. Woolf, *Deception in Scientific Research*, 29 JURIMETRICS J. 67, 71 (1988) (citation omitted) [hereinafter Woolf].

81. See, e.g., *Bonar v. Dean Witter Reynolds, Inc.*, 835 F.2d 1378, 1379 (11th Cir. 1988), where the court held that the investors' expert witness' perjury warranted the vacation of the arbitrators' punitive damages award. *Id.* at 1379. The credentials claimed by the expert witness were completely false. *Id.* at 1384.

Thomas E. Nix, of Florence, Ala., pled guilty to one count of making false statements in a lawsuit in United States District Court in Tampa. "Expert Witness" Taints Cases Because of False Credentials, FT. LAUDERDALE NEWS/SUN-SENTINEL, Jan. 23, 1988, at 13A. He was an engineering student at the University of Alabama but never graduated from that institution. *Id.* Furthermore, he never attended Columbia University or worked for St. Paul as claimed. *Id.*

82. *Scientific Fraud and Misconduct and the Federal Response: Hearing Before the Subcomm. on Human Resources and Intergovernmental Relations of the House Comm. on Government Operations*, 100th Cong., 2d Sess. (1988). See also AM. ASS'N FOR THE ADVANCEMENT OF SCIENCE—AM. BAR ASS'N, PROJECT ON SCIENTIFIC FRAUD AND MISCONDUCT: REPORT ON WORKSHOP No. 2 (1989). Other Congressional investigations have determined that there may be more than 500,000 or one in 200 working Americans who have obtained employment based on some form of fraudulent credential. This includes 10,000 doctors practicing with falsified or questionable credentials. "As many as 30 million or one in 3 currently employed Americans are hired with credentials which have been altered in some shape or form" from manipulation of a resume to adding a non-existent advanced degree. *Fraudulent Credentials: Joint Hearing Before the Subcomm. on Health and Long-Term Care and the Subcomm. on Housing and Consumer Interests of Select Comm. on Aging*, 99th Cong., 1st Sess. 3, 4 (1985).

83. See MODEL RULES OF PROFESSIONAL CONDUCT Rule 3.3 (1990).

84. See *People v. Cornille*, 448 N.E.2d 857, 865-66 (Ill. 1983) (where the court stated, "it is obvious that every party . . . has an obligation to verify the credentials of its expert witnesses"); *People v. Hanna*, 457 N.E.2d 1352 (Ill. App. Ct. 1983).

The American Academy of Forensic Science's Jurisprudence Section is presently considering a proposed code of professionalism for attorneys in their professional associations with expert witnesses. *Section and Program News: Jurisprudence*, ACADEMY NEWS, Mar. 1989, at 5. One of the proposed tenets of the code requires an attorney to verify his expert witness' credentials. *Id.*

York Crime Laboratory made many court appearances as an expert serologist.⁸⁵ However, when the Long Island newspaper, *Newsday*, commenced a series of articles on the mismanagement of the Suffolk County Criminal Justice System, it discovered that the deputy director had completely false credentials.⁸⁶

In *United States v. Hooker Chemicals & Plastics Corp.*,⁸⁷ the government's expert witness' fraud was exposed after he testified falsely to having possessed certain degrees.⁸⁸ Fortunately for the government's case, this unmasking was found to not be fatal since the witness functioned primarily as a supervisor, and qualified personnel had performed the various tests about which he had testified, thus allowing the court to uphold the verdict.⁸⁹

Investigative journalists in Illinois discovered the false qualifications of a fire investigator with fourteen years experience.⁹⁰ The investigation revealed a completely fraudulent academic background, as the witness had never received a college degree, but was actually suspended from college on several occasions for poor scholastic achievement.⁹¹ His testimony in *People v. Cornille*,⁹² as to the cause of a fire, "provided the crucial link in the prosecutor's case"⁹³ The court had no choice but to order a new trial two years later.⁹⁴ The court found that the prosecutor's lack of diligence in verifying the expert's supposed qualifications was equivalent to a knowing use of false testimony.⁹⁵ As the court saw it, "[i]t would have been a simple procedure in this case for the state to have verified [the witness'] qualifications before he testified at Cornille's trial" since the information to verify his statements was "readily available."⁹⁶ The court stated "it [was] only fair to charge [the prosecution] with the responsibility for the imposter's false testi-

85. T.J. Maier, *Records Show Expert Misstated Credentials*, *Newsday*, Dec. 10, 1986, at 19; James E. Starrs, *Lowering Themes: Of Experts Who Lie and Dirty Harry*, *Sci. Sleuthing Newsl.* (Forensic Sci. Dep't of Geo. Wash. U., Washington, D.C.), Summer 1987, at 1 [hereinafter Starrs, *Dirty Harry*]. While the expert did hold a bachelor's degree from C.W. Post Campus of Long Island University he also claimed to have a bachelor's degree in biology from Rensselaer Polytechnic Institute and a masters degree in forensic science from the City University of New York's John Jay College of Criminal Justice. Starrs, *Dirty Harry*, at 2. He was arrested on three felony counts of perjury in the first degree and pled guilty to three misdemeanor charges of perjury which necessitated his resignation from various professional organizations of which he was a member and which resulted in his being sentenced to three years probation and a \$3,000 fine. *Id.*

86. Starrs, *Dirty Harry*, *supra* note 85, at 2.

87. 540 F. Supp. 1067 (W.D.N.Y. 1982).

88. *Id.*

89. *Id.* at 1085.

90. James E. Starrs & Charles R. Midkiff, *Expert Witness — Bogus Fire Expert Brings Reversal of Illinois Arson Conviction*, *Sci. Sleuthing Newsl.* (The Mid-Atlantic Ass'n of Forensic Scientists, Oakton, Va.), July 1983, at 4 [hereinafter Starrs & Midkiff, *Bogus Fire Expert*].

91. He allegedly had an associate degree from Wright College in Chicago, a bachelor's degree in chemistry from the Illinois School of Technology and 25 post graduate credits in optics and physics. *Id.* At some trials he also credited himself with work at Roosevelt University. *Id.*

92. 448 N.E.2d 857 (Ill. 1983). See also Starrs & Midkiff, *Bogus Fire Expert*, *supra* note 90, at 4-5.

93. Starrs & Midkiff, *Bogus Fire Expert*, *supra* note 90, at 4.

94. *Id.*

95. *Id.* at 5.

96. *Cornille*, 448 N.E.2d at 865.

mony,⁹⁷ as it "made the mistake of producing an expert witness who was an imposter."⁹⁸

Even the federal government's agencies have had problems with employees with fraudulent credentials. A special agent with the FBI Laboratory Serology Unit repeatedly testified that he had a master's degree in science, when in fact he had no degrees beyond his bachelor's degree.⁹⁹ He testified in at least twenty-two trials in which the government obtained convictions.¹⁰⁰

Experts for the defense in criminal cases have also testified falsely regarding their qualifications. In *Kline v. State*,¹⁰¹ the expert in forensic hypnosis hired by Ted Bundy was discovered to have testified falsely that he had a doctorate degree and had completed post-doctoral work.¹⁰² He was convicted of perjury.¹⁰³ The court held that false testimony with regard to one's qualifications is material and thus sufficient to support a perjury conviction.¹⁰⁴

There have also been instances in which experts testified regarding results of tests which they never performed.¹⁰⁵ For example, Delbert J. Lacefield, the Director of the Forensic Toxicology Laboratory operated by the Federal Aviation Administration pled guilty in an Oklahoma City Federal District Court to having falsified his reporting of drug test results when he, in fact, had not conducted any tests.¹⁰⁶

It does not follow necessarily that the discovery of an expert witness' fraudulent credentials will result in a new trial or a perjury conviction. Instead courts may

97. *Id.*

98. *Id.*

99. *State v. Ruybal*, 408 A.2d 1284, 1285 (Me. 1979). See also Starrs, *Dirty Harry*, *supra* note 85, at 2.

100. See *Doepel v. United States*, 434 A.2d 449, 460 (D.C. 1981). See also Starrs, *Dirty Harry*, *supra* note 85, at 2.

101. 444 So. 2d 1102 (Fla. Dist. Ct. App. 1984).

102. *Id.*

103. *Id.*

104. *Id.* at 1104. The judge at the original trial stated that Kline would have been considered an expert in this field even without his phony doctorate. *Id.*

105. For an example of a civil case in which this has occurred, see *Harre v. A.H. Robins Co., Inc.*, 750 F.2d 1501 (11th Cir. 1985). The court held that the district court abused its discretion in denying a motion for relief from judgment after the plaintiff demonstrated that a key defense expert had falsified his credentials in order to be permitted to testify on the ultimate issue in the case. *Id.* at 1505. The defense expert testified that he had conducted experiments on the Dalkon Shield contraceptive device and the tail string's role in the transmission of bacteria. *Id.* at 1502. Thus, he was permitted to testify that the Dalkon Shield did not contribute to the plaintiff's illness, did not transmit bacteria and was not unreasonably dangerous for use as an IUD. *Id.* The plaintiff later discovered that the defense expert had never performed the experiment he described in his testimony. *Id.* at 1503.

106. *Doctor Guilty of Falsifying Drug Tests in Accident Cases*, N.Y. TIMES, May 27, 1987, at A19. See *Ruybal*, 408 A.2d at 1285. See also *State v. DeFronzo*, 394 N.E.2d 1027, 1031 (Ohio Misc. 1978) (expert represented that certain laboratory test was conducted when no such test was ever conducted); Starrs, *Dirty Harry*, *supra* note 85.

conclude that the expert is qualified to testify on other grounds, the expert's credibility is not significantly affected or the expert is immune from suit.¹⁰⁷

B. Negligence

Although there is no available data to show its precise dimensions, negligence by experts is widespread. Consider the instances of medical malpractice as an analogy.¹⁰⁸ It is estimated "that only 10 percent of the incidents of genuine medical negligence lead to a claim."¹⁰⁹

Even with well-accepted scientific techniques, negligence occurs. In North Carolina, officials had to reconsider 159 criminal cases because local authorities discovered questionable fingerprint identifications.¹¹⁰ The fingerprint misidentification resulted in two murder charges being dropped by the district attorney's office.¹¹¹ There are many other examples.¹¹² In June 1985 Bruce Basden was arrested and indicted for the murders of Remus and Blanche Adams in Fayetteville North Carolina on the basis of a fingerprint found in the decedents' home.¹¹³ Bas-

107. See, e.g., *State v. Bishop*, 439 A.2d 255 (R.I. 1982). This case involved the murder trial of a Rhode Island man accused of shooting through a window of the victim's residence and hitting the victim four times. *Id.* at 256. The expert witness was called to testify about the comparison testing the FBI performed on glass found at the crime scene and glass found on the defendant's and his accomplice's clothing. *Id.* at 260. During direct examination of the special agent, to establish his qualifications, the agent testified that in addition to training he received from the FBI in glass and soil identification, he had a "bachelor's degree, a master's degree, and a doctorate in geology from the University of Arkansas." *Id.* at 260-61. As a result of his list of qualifications, defense counsel stipulated to the witness' expertise and declined to cross examine on the issue of qualifications. *Id.* at 261. Subsequent to the defendant's conviction it was discovered that the expert witness could not possibly possess a doctorate in geology because during the time of his attendance, the University of Arkansas did not have a doctorate program in geology. *Id.* He did, however, obtain a doctorate in clay mineralogy. *Id.* The trial court found that even though the special agent did not have a doctorate degree in geology, he remained qualified as an expert in the area about which he had testified. *Id.* Furthermore, his testimony concerning his degree did not affect his credibility significantly, because he later explained that he considered his degree to be in the field of geology of which clay mineralogy is merely a subfield. *Id.* The Supreme Court of Rhode Island affirmed the trial court's conviction of the defendant for first degree murder after finding ample evidence to support the position that "the distinction between the nomenclature of degrees was of no substantial difference." *Id.* See also *Briscoe v. Lahue*, 460 U.S. 325 (1983) (police fingerprint expert gave perjured testimony but Court held he was immune from suit); James E. Starrs & Charles R. Midkiff, *Expert Witness—FBI Agent's Misstatement of His Qualifications Not Grounds for Murder Conviction Reversal*, SCI. SLEUTHING NEWSL. (The Mid-Atlantic Ass'n of Forensic Scientists, Oakton, Va.), Apr. 1983, at 7.

108. The best available data . . . [is] from a study conducted in the mid-1970's. Jointly sponsored by the California Medical Association and the California Hospital Association, this investigation used a team of experts to search hospital records for incidents of "patient disabilities caused by health-care management." . . . [T]hey found about one episode of malpractice in every 100 hospital admissions. William Ira Bennett, *Body and Mind: Pluses of Malpractice Suits*, N.Y. TIMES, July 24, 1988, § 6 (Magazine), at 31-32 [hereinafter Bennett].

109. *Id.* at 32.

110. Barry Bowden and Mike Barrett, *Fingerprint Errors Raise Questions on Local Convictions*, FAYETTEVILLE TIMES, Jan. 15, 1988, at 1A.

111. *Id.*

112. In *re Kirschke*, 125 Cal. Rptr. 680, 682 (Cal. Ct. App. 1975), a firearms identification expert "negligently presented false demonstrative evidence in support of his ballistics testimony." For additional illustrations of erroneous expert testimony, see James E. Starrs, *In the Land of Agog: An Allegory for the Expert Witness*, 30 J. FORENSIC SCI. 289 (1985) and the quarterly *Scientific Sleuthing Review* edited by Professor James Starrs and Charles Midkiff.

113. James E. Starrs, *More Saltimbancos on the Loose?—Fingerprint Experts Caught in a Whorl of Error*, SCI. SLEUTHING NEWSL. (Forensic Sci. Dep't of Geo. Wash. U., Washington, D.C.), Spring 1988, at 1 [hereinafter *Fingerprint Experts*]. Identifications that had convicted Morris Gaining of burglary have already resulted in the award of a new trial. *Id.* at 5.

den's attorney requested funds to have the fingerprint evidence reappraised and filed a motion to discover the physical evidence in the possession of the state.¹¹⁴ "At this point the state's fingerprint expert made enlargements of the prints from which he had made an identification of Basden as the intruder . . . [The state's expert] admitted that he found unexplained dissimilarities along with similarities in the prints."¹¹⁵ These discrepancies caused him to change his mind. The state subsequently dismissed all charges against Basden, who had been incarcerated in the local jail for thirteen months.¹¹⁶

The fingerprint examiner's explanation for his mistake was that he did not make photographic enlargements of Basden's prints and the latent print from the crime scene until the public defender's discovery motion.¹¹⁷ The enlargements detailed the differences rather than the similarities in the prints.¹¹⁸ However, in the regular course of fingerprint comparison, enlargements are the rule rather than the exception.¹¹⁹ The FBI and North Carolina authorities were then summoned to reevaluate the fingerprint work done by the State's fingerprint examiners.¹²⁰ The FBI reappraised fifty-one identifications made in 1986.¹²¹ The North Carolina State Bureau of Investigation examined 118 fingerprint identifications made in 1987.¹²² The FBI review revealed that "three fingerprints did not belong to three defendants in three separate cases."¹²³

The entire Los Angeles Police Department ballistics unit was evaluated after technicians misread firearms evidence in a murder case.¹²⁴ The forensic experts conclusively linked Deputy Rickey Ross's gun to the murders of three prostitutes.¹²⁵ A defense expert concluded Ross's gun could not have fired the bullets and independent experts found there was insufficient evidence to make any identification.¹²⁶ Prosecutors were forced to drop the murder charges against Ross.¹²⁷ Offi-

114. *Id.* at 5.

115. *Id.*

116. *Id.*

117. *Id.*

118. *Id.*

119. See generally PAUL C. GIANNELLI & EDWARD J. IMWINKELRIED, *SCIENTIFIC EVIDENCE* (1986) [hereinafter GIANNELLI & IMWINKELRIED]; ANDRE A. MOENSSSENS ET AL., *SCIENTIFIC EVIDENCE IN CRIMINAL CASES* (3d ed. 1986) [hereinafter MOENSSSENS].

120. *Fingerprint Experts*, *supra* note 113, at 5.

121. *Id.*

122. *Id.*

123. *Id.*

124. 15 LAW ENFORCEMENT NEWS, June 30, 1981, at 1. See also Bob Baker & Paul Lieberman, *Faulty Ballistics in Deputy's Arrest; Eagerness to 'Make' Gun Cited in LAPD Lab Error*, L.A. TIMES, May 22, 1989, at 1; David Freed, *LAPD Probing What Went Wrong With Ballistics Tests on Ross' Gun*, L.A. TIMES, May 16, 1989, at 26 [hereinafter Freed]. "Firearms identification is the study by which a bullet, cartridge case or shotshell casing may be identified as having been fired by a particular weapon to the exclusion of all other weapons." MOENSSSENS, *supra* note 119, at 385 (quoting F.B.I., *HANDBOOK OF FORENSIC SCIENCE* 52 (rev. ed. 1981)).

125. Freed, *supra* note 124, at 26.

126. *Id.*

127. *Id.*

cials launched an investigation into the ballistics unit to determine the root of the problem.¹²⁸

In Tucson, Arizona, "the prime time rapist"¹²⁹ investigation mistakenly concluded that Michael Cooper was the suspect.¹³⁰ Latent finger prints from two different rape scenes were attributed to him.¹³¹ Michael Cooper spent seven months waiting for the misidentification to be rectified.¹³² He filed a damage claim against the sheriff, the police department and the City of Tucson for the denial of his civil rights by his false arrest.¹³³ Three forensic scientists involved in the misidentification received administrative sanctions.¹³⁴

In *State v. Caldwell*,¹³⁵ a murder case, one of the crucial pieces of evidence was a latent fingerprint developed on an "envelope . . . which was addressed to the defendant and appeared to be in his handwriting. A gold coin was found inside, which was identified as one missing from [the decedent's] home. The defendant [the deceased's son-in-law] was said to have an interest in coin collecting."¹³⁶

During the course of the trial, the state presented the testimony of an agent of the Colorado Bureau of Investigation who had been assigned to the laboratory section for nine and one-half years.¹³⁷

He testified to having experience in fingerprint work over a period of fourteen and one-half years, including some "240 to 300 hours of actual classroom training" with the FBI. His experience included having conducted "approximately 60,000 examinations" of fingerprints. The [agent] testified . . . he [had] developed a latent fingerprint after spraying it with ninhydrin.¹³⁸ He photographed the print immediately after it appeared upon being sprayed and heated with an iron to shorten the time of

128. *Id.*

129. *Fingerprint Experts*, *supra* note 113, at 6. The perpetrator received this name from the press corps because many of his crimes occurred when the victims were caught unaware while viewing mid-evening television shows. *Id.*

130. *Id.*

131. *Id.*

132. *Id.*

133. *Id.*

134. *Id.*

135. 322 N.W.2d 574 (Minn. 1982). See also James E. Starrs, *A Miscue in Fingerprint Identification: Causes and Concerns*, 12 J. POLICE SCI. AND ADMIN. 287 (1984); James E. Starrs, *To Err is Human, Infallibility is Divine—A Closer Look, with a Doppler Effect*, *State v. Caldwell*, 322 N.W.2d 574 (Minn. 1982)—Part II, SCI. SLEUTHING NEWSL. (The Mid-Atlantic Ass'n of Forensic Scientists, Oakton, Va.), Oct. 1983, at 10 [hereinafter *Doppler Effect*]; James E. Starrs, *To Err is Human, Infallibility is Divine—Misidentified Fingerprint Results in Reversal of Minnesota First-Degree Murder Conviction—Part I*, SCI. SLEUTHING NEWSL. (The Mid-Atlantic Ass'n of Forensic Scientists, Oakton, Va.), Jan. 1983, at 1 [hereinafter *Misidentified Fingerprint*].

136. *Misidentified Fingerprint*, *supra* note 135, at 2.

137. *Misidentified Fingerprint*, *supra* note 135, at 2.

138. Porous surfaces, such as a paper envelope, are difficult surfaces from which to obtain latent fingerprints. GIANNELLI & IMWINKELRIED, *supra* note 119, at 505, 510-11; MOENSSSENS, *supra* note 119, at 420, 433. Ninhydrin is a chemical which, when sprayed on the surface bearing the latent print, reacts to the amino acids left by the skin. GIANNELLI & IMWINKELRIED, *supra* note 119, at 505, 510-11; MOENSSSENS, *supra* note 119, at 420, 433. After spraying, the print becomes visible and can be photographed. GIANNELLI & IMWINKELRIED, *supra* note 119, at 505, 510-11; MOENSSSENS, *supra* note 119, at 420, 433. See also FED. BUREAU OF INVESTIGATION, U.S. DEP'T OF JUSTICE, CHEMICAL DEVELOPMENT OF LATENT IMPRESSIONS (1980).

the chemical's reaction. Using the negative of that latent print¹³⁹ he made an enlargement for use at the defendant's trial, which was part of a photographic chart used for demonstrative purposes¹⁴⁰

The agent positively identified the latent print as that of the right thumb of the defendant.¹⁴¹ "His identification was based on 'a total eleven points' of similarity and no unexplainable differences between the latent and inked prints."¹⁴² Approximately a year after the analysis, the defense counsel consulted another fingerprint expert who evaluated the enlargement of the negative and defendant's known prints and agreed with the state's expert's opinion.¹⁴³ "The defense did not call its own expert to testify."¹⁴⁴ The defendant was convicted on both murder counts.¹⁴⁵ The defendant's wife, Marjorie Caldwell, was also tried for the murders but was acquitted.¹⁴⁶ "At Marjorie Caldwell's trial, the negative of the fingerprint was returned from Colorado where it was on file and the enlargements and contact prints prepared from it were re-examined by three fingerprint experts, all of whom agreed that 'the print . . . could not have been [Mr. Caldwell's].'"¹⁴⁷ "One expert . . . noted that the [Colorado] state expert had mounted his enlargement at an incorrect angle to use for demonstrative purposes at the appellant's trial. He also stated that the print 'was a very poor latent print to try to identify' in the first place."¹⁴⁸ He also disagreed with the government expert's claimed eleven points of similarity. Two other fingerprint experts also concluded it was not Caldwell's fingerprint.¹⁴⁹ Roger Caldwell then filed a motion for a new trial on the basis of newly discovered evidence.¹⁵⁰ The Minnesota Supreme Court, holding that the changed circumstances since the time of the trial mandated a new trial, stated: "The fingerprint expert's testimony was damning – and it was false."¹⁵¹ "[A]s uncontradicted as it was, it 'destroyed the credibility of the testimony of appellant's handwriting

139. Each ridge of the fingers, palms, and sole bears a row of sweat pores which in the average person constantly exude perspiration. Also, the ridges of the fingers and palms are in intermittent contact with other parts of the body, such as the hair and face, and with various objects, which may leave a film of grease or moisture on the ridges. In touching an object, the film of moisture and/or grease may be transferred to the object, thus leaving an outline of the ridges of the fingers or palm thereon. This print is called a latent impression, the word "latent" meaning hidden, that is, the print many times is not readily visible.

FED. BUREAU OF INVESTIGATION, U.S. DEP'T OF JUSTICE, *THE SCIENCE OF FINGERPRINTS* 170 (1984).

140. *Misidentified Fingerprint*, *supra* note 135, at 2.

141. *Id.*

142. *Id.* The International Association for Identification (IAI) has consistently maintained that no minimum number of points of similarity will be prescribed by it for a match to exist between a known and unknown fingerprint. *Doppler Effect*, *supra* note 135, at 11. In England, sixteen separate points of similarity are a prerequisite to identification. *Id.* In the Republic of Ireland, twelve such points will suffice. *Id.* In the United States experts have concluded that anywhere from eight to ten points of similarity are appropriate for an identification to be made. *Id.*

143. *Misidentified Fingerprint*, *supra* note 135, at 2.

144. *Id.*

145. *Id.*

146. *Id.*

147. *Id.* at 3.

148. *Id.*

149. *Id.*

150. *Id.*

151. *State v. Caldwell*, 322 N.W.2d 574, 586 (Minn. 1982).

expert' and it was the only solid evidence placing the defendant [at the scene]. It was therefore wrong for a conviction to rest so significantly on 'totally incorrect evidence.' ¹⁵²

The identification error made by the state's expert in the *Caldwell* case, as well as the defense expert's confirmation of the erroneous identification, resulted in both experts' certifications being revoked by the International Association for Identification (IAI). ¹⁵³ Errors in fingerprint examinations may also result from a failure to raise a latent print. ¹⁵⁴ This was the situation in *Imbler v. Craven*. ¹⁵⁵ In that case the state's fingerprint expert found "two fragmentary" prints on a razor case discovered in a pocket in a topcoat discarded by a robbery/murder suspect. The prints were deemed to be unidentifiable. After Imbler's conviction another expert for the defense discovered a third and identifiable print on the same razor case. This print did not belong to Imbler. ¹⁵⁶ All the evidence indicates that this print was on the case at the time of trial. ¹⁵⁷

The expert's testimony raised an additional problem. He stated that the first two latent prints were too fragmentary to make an identification even when compared with the exemplars. ¹⁵⁸ Nevertheless, his testimony and police logs revealed he made such comparisons. ¹⁵⁹ In light of the evidence the court concluded "the function apparently served by the fingerprint testimony was to imply to the jury that the prints on the razor case might have been the petitioner's." ¹⁶⁰ The court stated that, "[h]ad the jury known that the third print on the case was not the petitioner's, they clearly would have reached a different conclusion with respect to this evidence." ¹⁶¹

The California Supreme Court held that even though the police investigator's negligence had obstructed the defendant in challenging the case against him, it was

152. *Misidentified Fingerprint*, *supra* note 135, at 3.

153. *Doppler Effect*, *supra* note 135, at 10.

154. *Id.*

155. 298 F. Supp. 795 (C.D. Cal. 1969) (habeas corpus petition by state prisoner); *see also Doppler Effect*, *supra* note 135, at 10-11. The complete history of Paul Kern Imbler's case is as follows: *Imbler v. Pachtman*, 500 F.2d 1301 (9th Cir. 1974), *aff'd*, 424 U.S. 409 (1976); *Imbler v. Craven*, 298 F. Supp. 795 (C.D. Cal. 1969), *aff'd*, 424 F.2d 631 (9th Cir.), *cert. denied sub nom California v. Imbler*, 400 U.S. 865 (1970); *In re Imbler*, 393 P.2d 687 (Cal. 1964); *In re Imbler*, 387 P.2d 6 (Cal. 1963); *People v. Imbler*, 371 P.2d 304 (Cal. 1962).

156. *Doppler Effect*, *supra* note 135, at 11.

157. *Imbler*, 298 F. Supp. at 810.

At the state habeas corpus hearing, the police fingerprint expert was reluctant to admit to the existence of the third print When asked whether the third print could be identified, he stated that he didn't "believe so." . . . Exemplars of the petitioner's prints were then given to him during the noon recess at which time he compared them His testimony about [the] second examination was somewhat evasive [W]hile the state's expert was unable to make a definite statement with regard to the unmagnified pictures, he was able to conclude, albeit reluctantly, that the print as it appeared in the magnified photo was not petitioner's. After later examining the prints during an overnight recess, he finally made a clear and unqualified statement that the third latent print was not petitioner's.

Id.

158. *Id.*

159. *Id.*

160. *Id.*

161. *Id.*

not a ground for collateral attack, and added that the razor case had been available to petitioner during the trial.¹⁶² The federal district court disagreed. The court concluded that the defendant's due process rights had been violated since evidence favorable to the defendant was negligently suppressed by the prosecutor.¹⁶³

There is little question that laboratory examinations may result in incorrect findings. The United States Supreme Court has recognized that "the results of laboratory tests may be contrived."¹⁶⁴ In 1978 over two hundred crime laboratories participated in a Law Enforcement Assistance Administration proficiency testing program.¹⁶⁵

[The program] involved such common forensic examinations such as firearms, blood, drug, and trace evidence analyses "65 percent of the laboratories had 80 percent or more of their results fall into the acceptable category. At the other end of the spectrum, 3 percent of laboratories had less than 50 percent of their responses considered acceptable." . . . Unacceptable proficiency was most often attributed to: (1) misinterpretation of test results due to carelessness or inexperience; (2) failure to employ adequate or appropriate methodology; (3) mislabeling or contamination of primary standards; and (4) inadequate data bases or standard spectra.¹⁶⁶

The number of crime laboratories in the United States has increased to more than 300 since the proficiency testing program.¹⁶⁷ At present, there are no national standards ensuring the competency of laboratory examiners, although laboratories and professional associations have their own certification or peer review programs, as well as independent proficiency testing.¹⁶⁸

IV. REMEDIES PRESENTLY AVAILABLE TO CURB EXPERT WITNESS ABUSES

A. Cross Examination

The law does little to regulate the quality of expert testimony and professionalism of forensic scientists.¹⁶⁹ "The principle safeguard against errant expert testimony is the opportunity of opposing counsel to cross-examination. Generally

162. *In re Imbler*, 387 P.2d 6, 13 (Cal. 1963), *cert. denied*, 379 U.S. 908 (1964).

163. *Imbler*, 298 F. Supp. at 808 (citing *Thomas v. United States*, 343 F.2d 49, 53-54 (9th Cir. 1965)).

164. *United States v. Ash*, 413 U.S. 300, 320 (1973).

165. Proficiency testing is a method by which the accuracy of laboratory analysis is judged. See Kurt M. Dubowski, *Drug Use Testing; Scientific Perspectives*, 11 NOVA L. REV. 415, 488-93 (1987). For example, known samples will be submitted to laboratories and they must make certain findings about the samples. *Id.* at 488-93. The testing body knows the data that a proper forensic analysis of the samples would yield, and the testing body compares that data with the laboratory's reports. *Id.*

166. Paul C. Giannelli, *The Admissibility of Laboratory Reports in Criminal Trials: The Reliability of Scientific Proof*, 49 OHIO ST. L.J. 671, 689-90 (1988).

167. *Directory of Crime Laboratories*, U.S. Dept. of Justice FBI (1989).

168. Criminalist Certification Study Committee, Chicago, Ill. (July 17-18, 1988) (unpublished minutes, on file with *Miss. College Law Review*). The American Board of Criminalists (ABC) has recently been created to certify criminalists. The articles of incorporation for ABC were filed in New York in August 1989. The American Society of Crime Lab Directors (ASCLD) has an accreditation program for laboratories. See discussion regarding certification and accreditation, *infra* notes 205-12 and accompanying text.

169. Joseph L. Peterson & John E. Murdock, *Forensic Science Ethics: Developing an Integrated System of Support and Enforcement*, 34 J. FORENSIC SCI. 749 (1989) [hereinafter Peterson & Murdock].

opposing counsel may probe bias, partisanship, or financial interest"¹⁷⁰ However, cross-examination alone is not an adequate safeguard. "The problem is that often the human frailty of scientific analysis can be detected and exposed only by the trained insider. The untrained outsider . . . may confront a wall of superficial unanimity, and see no cause to inquire further."¹⁷¹ Most lawyers do a woefully inadequate job in cross-examining experts.¹⁷² One reason for this is improper preparation. Another reason is that lawyers are reluctant to incur the risks involved in challenging such an expert.¹⁷³ Many lawyers do not even avail themselves of expert services and are therefore unable to effectively cross-examine opposing experts.¹⁷⁴ Many echo the lament of Judge Weinstein, "[h]ow can the nonexperts control the experts?"¹⁷⁵

The adversary process, particularly cross-examination, as the primary means to correct or remedy negligent or erroneous expert opinions is inadequate particularly in criminal cases for another reason. Since the vast majority of criminal cases are resolved through plea bargaining, the prosecution's employment of scientific findings is rarely challenged by the defense. The absence of a review means that the prosecution's expert seldom has his or her credentials challenged, scientific procedures reviewed, and results or interpretations of findings questioned by the opposition.¹⁷⁶

There may not be an opportunity to cross-examine the expert in a criminal case for another reason. Recent cases have held autopsy reports and lab reports admissible when the coroner or chemist is unavailable for trial.¹⁷⁷ The cases have held

170. *Sears v. Rutishauser*, 466 N.E.2d 210, 212 (Ill. 1984). However, the court later refused to extend the holding of the *Sears* case in *Trower v. Jones*, 500 N.E.2d 1134 (Ill. App. Ct. 1986), *appeal granted*, *Trower v. Jones*, 508 N.E.2d 737 (Ill. 1987), *rev'd*, *Trower v. Jones*, 520 N.E.2d 297 (Ill. 1988).

171. John M. Conley, *"The First Principle of Real Reform": The Role of Science in Constitutional Jurisprudence*, 65 N.C. L. REV. 935, 943 (1987).

172. Kevin M. Dowd, Book Review, 14 NEW ENG. J. ON CRIM. & CIV. CONFINEMENT 169, 171 (1988) (reviewing PATRICK R. ANDERSON & L. THOMAS WINFREE, JR., *EXPERT WITNESSES: CRIMINOLOGISTS IN THE COURTROOM* (1987)).

173. James M. Doyle, *Applying Lawyers' Expertise to Scientific Experts: Some Thoughts About Trial Court Analysis of the Prejudicial Effects of Admitting and Excluding Expert Scientific Testimony*, 25 WM. & MARY L. REV. 619, 642 (1984) (citation omitted).

174. Michael McConville & Chester L. Mirsky, *Criminal Defense of the Poor in New York City*, 15 N.Y.U. REV. L. & SOC. CHANGE 581 (1986-87). A survey of 18-B Panel attorneys (attorneys who are appointed to represent indigent clients in New York City) showed that most did not avail themselves regularly of investigative and expert services permitted by statute. *Id.* at 763. One in ten attorneys reported they had never used investigators or experts and only one in five reported they regularly used these services. *Id.* "Attorneys consulted with experts in only 17 percent of all homicide cases . . . [and] claimed for expert consultation in only 2 percent of all other felonies, despite the importance of forensic evidence to the state's case." *Id.* at 764.

175. Weinstein, *supra* note 28, at 482. An expert often may lack expertise in the specific area in which he is testifying, may base his opinion on unsupported assumptions, or may rely upon unreliable data. *Id.* at 481-82. The opponent may fail to challenge these flaws, however, if he has not diligently examined the expert's testimony. *Id.* Combined with the liberality of the Federal Rules of Evidence and the practice of some courts to permit jurors to consider virtually all such testimony, the expert may appear practically unimpeachable to the jury. *Id.*

176. Peterson & Murdock, *supra* note 168, at 750.

177. *Manocchio v. Moran*, 919 F.2d 770 (1st Cir. 1990); *Washington v. Sosa*, 800 P.2d 839 (Wash. Ct. App. 1990) (holding that a lab report indicating heroin was admissible under criminal rule 6.13(b) which provides a hearsay exception for a lab report certified by the person preparing the report and provided to defendant at least 15 days prior to trial).

the admission of such reports is not violative of the Confrontation Clause since they possess sufficient guarantees of trustworthiness and may be admitted as a hearsay exception.¹⁷⁸

B. Legislation

Legislatures have proposed remedies to the problems of expert witness negligence and fraud. Some state legislatures have adopted statutes which state that an expert witness "cannot earn more than 20 percent of his total annual income from fees for providing testimony."¹⁷⁹ Other statutes prohibit a person from qualifying as an expert witness regarding the standard of care in a medical malpractice action unless at least fifty percent of the person's professional time in the two years preceding the incident is devoted to clinical practice in the same profession as the defendant doctor.¹⁸⁰ Some legislatures have proposed capping expert witness fees.¹⁸¹ Recent legislation provides for criminal sanctions and appropriate discipline for any person who misrepresents association with or academic standing at a post-secondary educational institution or makes false claims of academic degrees or titles.¹⁸²

C. Peer Review

"Modern experimental science has built-in quality control mechanisms that enable scientists to determine whether they can rely on the work of other scientists and that provide assurance that their own work can be certified as 'good' or 'reliable' science."¹⁸³ Peer review is best understood as a process that allows the scientific community to police itself.

Peer review has been heralded as one of the most effective methods for detecting fraud and negligence.¹⁸⁴ However, the efficiency of peer review in uncovering fraud has recently been scrutinized. Recent "disclosures about fraudulent and er-

178. *Manocchio*, 919 F.2d at 777.

179. *Booming Business*, *supra* note 18, at 13.

180. KAN. STAT. ANN. § 60-3412 (Supp. 1990) states:

In any medical malpractice liability action, as defined in K.S.A. 1985 Supp. 60-3401 and amendments thereto, in which the standard of care given by a practitioner of the healing arts is at issue, no person shall qualify as an expert witness on such issue unless at least 50% of such person's professional time within the two-year period preceding the incident giving rise to the action is devoted to actual clinical practice in the same profession in which the defendant is licensed.

Id.

181. *See, e.g.*, Senate Bill 380 Fla. (1990) (proposing to cap some expert fees at \$250 an hour).

182. *See*, FLA. STAT. ANN. §§ 817.566 to 817.567 (West Supp. 1991). *See also* OR. REV. STAT. § 348.885 (1989) (providing that misrepresentation of possession of an academic degree is fraudulent); NEV. REV. STAT. ANN. § 205.420 (Michie 1986) (providing that the use of a false permit, license or diploma is a misdemeanor). *See also* Van Tol, *supra* note 75.

183. Thomas S. Burack, *Of Reliable Science: Scientific Peer Review, Federal Regulatory Agencies, and the Courts*, 7 VA. J. NAT. RESOURCES L. 27, 30 (1987).

184. Woolf, *supra* note 80, at 81-82.

roneous scientific papers have . . . prompted an array of proposals to make scientific journals more accountable."¹⁸⁵

Responses to scientific fraud from various research institutions include formation of an internal or external investigating committee or panel; notification to funding agencies, professional societies, and to journals in which the research was published; letters of censure to the researcher; a requirement that the researcher sign a statement about future conduct; dismissal of the researcher; termination; request for resignation; press releases; news conferences; or other disclosure to the public.¹⁸⁶ Many agencies may suspend all funds, prohibit the individual from obtaining funds in the future for a specified number of years, notify other funding agencies, recommend retraction or clarification of published articles, and recover or attempt to recover funds expended upon questionable research.¹⁸⁷

D. Science Court

A "science court" to resolve complex scientific or technical questions has been offered as a solution, but has made virtually no progress toward becoming a reality.¹⁸⁸ The Task Force of the Presidential Advisory Group on Anticipated Advances in Sciences and Technology recommended the creation of a science court.¹⁸⁹ A panel of judges would be selected from a list of eminent scientists. The panel and a magistrate would appoint a case manager for each party. The case manager would present the different sides of the scientific issues.¹⁹⁰ Statements of scientific facts would be submitted by the case managers to the panel of judges.¹⁹¹ The panel would review the statements. "Those statements not exclusively concerned with questions of scientific fact would be eliminated."¹⁹² Case managers would examine, evaluate and possibly challenge the statements of scientific fact. "[U]nchallenged statements would appear in the court's final report. Challenged

185. Lawrence K. Altman, *Errors Prompt Proposals to Improve 'Peer Review' at Science Journals*, N.Y. TIMES, June 6, 1989, at C3 [hereinafter Altman].

Proposals to improve peer review call for such measures as auditing data, accounting for the length of time it takes to review manuscripts, removing the identity of their authors and the institutions before reviews, and abandoning the custom of anonymous reviews. These and other proposals were discussed recently in Chicago at the first-ever conference to review the review process. The meeting was sponsored by the American Medical Association Despite its importance, the peer review system is poorly understood by most physicians and scientists. There is no standard among the thousands of journals that apply it, and editors rarely publish their review policies In general, data to prove the value of the peer review system are scarce [M]any articles that are initially rejected end up being published later almost verbatim in other peer-reviewed journals.

Id.

186. Woolf, *supra* note 80, at 85.

187. Altman, *supra* note 184, at C3.

188. See Symposium, *Curbing Ignorance and Arrogance: The Science Court Proposal and Alternatives*, 19 JURIMETRICS J. 385 (1979); James A. Martin, *The Proposed "Science Court"*, 75 MICH. L. REV. 1058 (1977) [hereinafter Martin]; Arthur Kantrowitz, *Proposal For An Institution For Scientific Judgment* 156 SCI. 763 (1967).

189. Wesley, *supra* note 58, at 687 (citing the Task Force of the Presidential Advisory Group on Anticipated Advances in Science and Technology, *The Science Court Experiment: An Interim Report*, 193 SCI. 653 (1976)).

190. *Id.* at 688.

191. *Id.*

192. *Id.*

statements would go through a mediation process”¹⁹³ The final stage would involve the production of the judges’ report.¹⁹⁴

E. Other Solutions, Sanctions Proposed

The prescreening of experts, using court appointed experts, and adherence to strict codes of ethics have also been proposed.¹⁹⁵ It has been suggested that every time expert evidence is introduced through testimony, affidavit or deposition, the court reporter should complete an information card and submit it to the American Academy of Forensic Sciences¹⁹⁶ or similar professional societies whose ethics committees are not restricted by jurisdictional boundaries.¹⁹⁷ This information would be made available to any party with a legitimate interest.¹⁹⁸ Another solution for improving the judicial comprehension of scientific evidence is the creation of advisory panels consisting of lay persons and scientists.¹⁹⁹ The use of special masters, advisory juries, and court-appointed experts have been offered as solutions.²⁰⁰ Judge Harold Leventhal proposed setting up a pool of scientific experts who would act as aides to appellate judges, helping them to understand problems of scientific methodology and assess substantive data.²⁰¹ There has even been a proposal for a Judicial Office for Understanding Science and Technology.²⁰²

Some courts, frustrated with the lack of sanctions for errant behavior by expert witnesses, have meted out sanctions. For example, in *Schmidt v. Ford Motor Co.*,²⁰³ the plaintiff’s expert witness intentionally gave misleading information in a deposition and in informal conversations with the defendant’s expert.²⁰⁴ The court barred the plaintiff’s expert from testifying in the case and prohibited him from testifying as an expert witness in any case tried in federal court in the district.²⁰⁵

Efforts to improve the quality of expert witnesses have been spearheaded by the expert witnesses themselves. Presently, eighty-four laboratories are voluntary par-

193. *Id.*

194. *Id.* at 689.

195. *See, e.g.*, CODE OF PROFESSIONAL AND ETHICAL CONDUCT (Draft 1989).

196. The American Academy of Forensic Sciences (AAFS) is a professional association of 3,800 members founded in 1948 which represents the forensic specialties of Criminalist, Engineering Sciences, Jurisprudence, Odontology, Pathology and Biology, Physical Anthropology, Psychiatry, Questioned Documents, Toxicology, and multi-disciplinary forensic specialties.

197. *See* Randy Hanzlick, *Discussion of “Peer Review in the Courtroom”*, 32 J. FORENSIC SCI. 581 (1987) (letter to the editor and response discussing need for peer review of doctors in the courtroom) [hereinafter Hanzlick]. *See also* Joseph W. Davis, *Peer Review in the Courtroom*, 31 J. FORENSIC SCI. 803 (1986) (letter to the editor discussing need for peer review in the courtroom).

198. Hanzlick, *supra* note 196.

199. Wesley, *supra* note 58, at 693. *See also* Martin, *supra* note 187.

200. Wesley, *supra* note 58, at 695.

201. Harold Leventhal, *Environmental Decisionmaking and the Role of the Courts*, 122 U. PA. L. REV. 509, 550 (1974).

202. Sheldon L. Trubatch, *Informed Judicial Decisionmaking: A Suggestion for a Judicial Office for Understanding Science and Technology*, 10 COLUM. J. ENVTL. L. 255, 257 (1985).

203. 112 F.R.D. 216 (D. Colo. 1986). The District Court judge also removed the plaintiff’s counsel from the case and submitted a transcript of the hearing and order to the court’s Committee on Conduct. *Id.* at 221.

204. *Id.* at 220.

205. *Id.* at 221.

ticipants in the American Society of Crime Lab Directors' (ASCLD) accreditation program.²⁰⁶ ASCLD was founded in 1974.²⁰⁷ Its membership consists of the directors of the crime laboratories whose scientists spend the majority of their time examining physical evidence in criminal matters.²⁰⁸ ASCLD requires mandatory proficiency testing for all accredited laboratories.²⁰⁹

While there was initially a resistance to the certification movement more than twelve years ago,²¹⁰ it is now accepted in many areas of forensic science. Board certification is available from certifying organizations such as The California Association of Criminalists, The International Association for Identification, The American Board of Forensic Document Examiners, The American Board of Forensic Anthropology, The American Board of Forensic Odontology, The American Board of Pathology, The American Board of Forensic Psychiatry and The American Board of Forensic Toxicology. These boards have established national standards. Their certification programs are open to private and government forensic scientists.

Another recently created certifying body is the American Board of Criminalists (ABC). The ABC was incorporated in 1989.²¹¹ The ABC will issue a certificate in basic criminalistics and in the disciplines of forensic biology, drug identification, fire debris analysis, and trace evidence examination.²¹² The initial member organizations are The California Association of Criminalists (CAC), Mid-Atlantic Association of Forensic Scientists (MAAFS), Midwestern Association of Forensic Scientists (MAFS), Northeastern Association of Forensic Scientists (NEAFS), and Southern Association of Forensic Scientists (SAFS).²¹³ Those organizations' members voted to become members of ABC.

V. POLICY REASONS FOR AND AGAINST EXPERT WITNESS MALPRACTICE CAUSE OF ACTION

One means of addressing the problem of expert witness malpractice is to provide harmed parties with a cause of action. This idea finds both support and opposition in policy and practicality.

Malpractice is defined as:

The failure of one rendering professional services to exercise that degree of skill and learning commonly applied under all the circumstances in the community by the average prudent reputable member of the profession with the result of injury, loss or damage to the recipient of those services or to those entitled to rely upon them.²¹⁴

206. Telephone interview with Richard Tanton, Immediate Past President of ASCLD (October 15, 1991).

207. American Society of Crime Laboratory Directors, Inc., Informational Brochure (undated).

208. *Id.*

209. *Id.*

210. See Jan Bashinski, *Laboratory Standards: Accreditation, Training and Certification of Staff in Forensic Context*, in BANBURY REPORT 32: DNA TECHNOLOGY AND FORENSIC SCIENCE (J. Ballantyne et al. eds., 1989).

211. AMERICAN BOARD OF CRIMINALISTICS CERTIFICATION PROGRAM (Draft 1991).

212. *Id.* at 3.

213. *Id.* at 13.

214. BLACK'S LAW DICTIONARY 959 (6th ed. 1990). KEETON, *supra* note 9, § 32, at 185-86.

The misconduct of expert witnesses seems to fall within this definition since experts have gained stature as professionals and should be responsible and non-negligent. The expert witness' importance to the legal community justifies the imposition of malpractice liability. The special relationships of trust and reliance that exist between the experts, clients, defendants, attorneys, judges and jurors require imposition of the malpractice cause of action. Since the injuries and damages rising from the malpractice of expert witnesses are real and substantial, the law should provide a remedy.

Another reason for permitting malpractice actions is to assure "quality control" of expert opinions — "a way to find out whether something unhealthy is happening, and to correct it."²¹⁵ Since non-experts are not competent to assess an expert's competence and diligence, the principle of caveat emptor²¹⁶ breaks down. The market cannot alert persons to those experts who are incompetent or careless.²¹⁷ "The court, then, serves as a substitute for the marketplace, imposing financial penalties"²¹⁸

One of the impediments to expert witness malpractice actions is that some courts hold that the expert witness who gives opinion evidence is the court's witness and whether sued by a party or by a non-party enjoys immunity against all post-trial damage claims.²¹⁹ However, the witness immunity rule is traditionally limited to defamation cases²²⁰ and is extremely narrow in scope. The Restatement (Second) of Torts defines the parameters of the privilege as follows: "A witness is absolutely privileged to publish defamatory matter concerning another in communications preliminary to a proposed judicial proceeding or as part of a judicial proceeding in which he is testifying, if it has some relation to the proceeding."²²¹ The privilege is clearly limited to the publication of defamatory matter. It does not offer a wholesale immunity for any civil wrong. The traditional witness immunity rule should not apply to shield negligent expert witnesses who are influential in determining the jury's verdict, as it would corrupt the integrity of the jury system which depends upon the full and accurate development of all evidence and facts.

Protecting expert witnesses from liability for statements made in court furthers this goal. However, the full and accurate development of evidence is not served by protecting negligent or false trial testimony. Rather, the expert should be held to the standard of care within his profession. Moreover, the traditional witness immunity rule should not shield expert witnesses since it is the expert witness' acts and opinions reached outside of court which form the basis for the claim for expert

215. Bennett, *supra* note 108, at 31.

216. Latin term literally meaning, "let the buyer beware."

217. Bennett, *supra* note 108, at 31.

218. *Id.*

219. Bader v. State, 716 P.2d 925 (Wash. Ct. App. 1986); Bailey v. Rogers, 631 S.W.2d 784 (Tex. Ct. App. 1982). See also Clark v. Grigson, 579 S.W.2d 263 (Tex. Civ. App. 1978).

220. See, e.g., Greenberg v. Ackerman, 124 A.2d 313 (N.J. Super. Ct. App. Div. 1956) (holding that remarks of a witness, although not concise, were relevant to the main issue, and thus were absolutely privileged).

221. RESTATEMENT (SECOND) OF TORTS § 588 (1977).

witness malpractice. The negligence that occurred in the course of the investigation and analysis merely continues during the course of providing testimony or by virtue of the testimony itself.

A policy reason for providing immunity to expert witnesses is to avoid the harassment by unfounded litigation which would cause a deflection of the expert's energies from public duties and the possibility that he or she would shade decisions rather than exercising independent judgment. There is some concern that lawsuits against expert witnesses may also restrict the use of new scientific evidence.²²²

There is also some concern about whether such a cause of action will have a chilling effect on the willingness of persons to serve as forensic experts in the litigation process. Possibly there will be a dwindling number of experts or even increased charges for such services. However, this is not such a compelling public policy concern to justify not recognizing an expert witness malpractice cause of action. Indeed, such a result did not occur when the causes of action for accountant's malpractice, medical malpractice and legal malpractice arose.

VI. EXPERT WITNESS MALPRACTICE CASELAW

Presently, there is very little authority that addresses whether and on what legal basis, victims of expert witness negligence may seek redress against the negligent witness. Some authority allows expert witnesses immunity from suit.²²³ Other authority allows negligence actions to proceed.²²⁴ The majority of courts that have decided cases involving negligence by experts have shielded the experts from civil liability. The courts rejected expert witness malpractice claims on two theories: (1) negligent mistakes or inaccuracies do not constitute perjury; and (2) testimony and reports provided to courts are privileged, thus experts who give negligently erroneous testimony are shielded from civil suit.²²⁵ A few courts, though, have held that experts may be liable for their negligence.

In *Levine v. Wiss & Co.*,²²⁶ the court held that a court appointed accountant in a contested divorce case may be held liable for negligent preparation justifiably relied upon by the litigants.²²⁷ The court also held that the liability can be "the basis for recovery of damages for economic loss or injury sustained as a consequence of that reliance."²²⁸ The court rejected the defendant's limited privilege argument and held that an expert who undertakes to render services in the practice of a professional trade is required to exercise the skill and knowledge normally possessed by

222. See Michael J. Saks, *Prevalence and Impact of Ethical Problems in Forensic Science*, 34 J. FORENSIC SCI. 772 (1989), for a summary of cases involving litigation against expert witnesses.

223. See *infra* note 241.

224. See *infra* note 225-37.

225. *Id.*

226. 478 A.2d 397 (N.J. 1984).

227. *Id.*

228. *Id.* at 399 (citation omitted).

members of that profession in good standing in similar communities.²²⁹ The court stated:

[Immunity] should not be available to shield from liability for negligence appraisers or other experts performing limited functions, as part of their regular professional responsibilities, in the context of judicial proceedings. To do so would . . . create an additional legal immunity—a consequence contrary to our prevailing philosophy and practice that strive to provide redress for wrongful injury.²³⁰

As such, the expert witness could be held liable for damages for economic loss as a result of the breach of his duty. In *Wolpert v. North Shore University Hospital*,²³¹ the court in dicta noted that if the reports issued by a physician, psychologists and a social worker concerning the alleged sexual abuse by plaintiffs of their grandson were inaccurate and negligently, recklessly or intentionally rendered, they would generate the same responsibility as the accountant's report in *Levine v. Wiss & Co.*²³²

In *James v. Brown*,²³³ the plaintiff sued three psychiatrists who had filed reports with the court on the issue of the soundness of her mind or her need for involuntary hospitalization.²³⁴ Based upon these reports she was hospitalized.²³⁵ She later sued for false imprisonment, malicious prosecution, defamation and negligence.²³⁶ The Texas Supreme Court upheld the dismissal of the false imprisonment and malicious prosecution actions for failure to state a claim.²³⁷ The dismissal of the defamation action was affirmed under the doctrine of absolute privilege.²³⁸ As to the negligence claim for malpractice, the court reversed and remanded for trial holding that the diagnoses themselves may be actionable on other grounds.²³⁹ The plaintiff was "not prevented from recovering from the doctors for negligent misdiagnosis-medical malpractice merely because their diagnoses were later communicated to a court in the due course of judicial proceedings."²⁴⁰

In *James*, the Texas Supreme Court disapproved of the Texas Court of Appeals' decision in *Clark v. Grigson*,²⁴¹ which provided a psychiatrist testifying in mental health proceedings with blanket immunity from all civil liability.²⁴² The *James* decision supports the view that where the underlying negligent act is the basis of the claim, conduct is not cloaked with immunity simply because the results of the in-

229. *Id.*

230. *Id.* at 401-02 (citation omitted).

231. 555 A.2d 729 (N.J. Super A.D. 1989).

232. *Id.* at 730 n.1.

233. 637 S.W.2d 914 (Tex. 1982).

234. *Id.*

235. *Id.* at 916.

236. *Id.*

237. *Id.*

238. *Id.*

239. *Id.*

240. *Id.* at 918.

241. 579 S.W.2d 263, 265 (Tex. Civ. App. 1978).

242. 637 S.W.2d at 917.

vestigation and assessment are published in some fashion in judicial proceedings. If mere publication transforms culpable conduct into immunized conduct, this could lead to unreasonable results.²⁴³

A relatively recent case which squarely addresses the issue of an expert's negligence is from the Supreme Court of Washington. In *Bruce v. Byrne-Stevens & Assoc. Engineers, Inc.*,²⁴⁴ the court held in a five to four decision, that an engineer who testified as an expert witness for the plaintiffs at trial was entitled to immunity from suit based on his testimony.²⁴⁵ The appellees Robert and Sallee Bruce and Mildred Smallwood, owned separate parcels of land on Clear Lake. In 1979, their neighbor conducted excavation work which resulted in the loss of lateral support in the soil of their properties.²⁴⁶ They sued the neighbor and hired an engineering firm to calculate the cost of stabilizing their land.²⁴⁷ Byrne, the engineer testified at trial "that the cost of restoring lateral support would be \$10,020 on the Bruce property and \$11,020 on the Smallwood property."²⁴⁸ The trial court found against the neighbor for damages in those respective amounts.²⁴⁹ When the cost later proved to be twice the amount of Byrne's estimate, Bruce and Smallwood sued Byrne and the engineering firm.²⁵⁰ They alleged "Byrne was negligent in preparing his analysis and testimony and that, but for Byrne's low estimate of the cost of restoring lateral support, they would have obtained judgment against [the neighbor] for the true cost of the restoration."²⁵¹

The Washington Supreme Court held that Byrne was entitled to immunity from suit based upon his testimony.²⁵² The purpose of the immunity rule is for parties and witnesses to preserve the integrity of the judicial process by encouraging full and frank testimony.²⁵³ The court explained that a witness' apprehension of subsequent liability might cause a witness to be reluctant to testify and possibly to distort his testimony if he takes the stand.²⁵⁴ The court was concerned that "[a] witness who knows that he might be forced to defend a subsequent lawsuit, and perhaps to pay damages, might be inclined to shade his testimony" in favor of the potential plaintiff and thus deprive the "finder of fact of candid, objective, and undistorted evidence."²⁵⁵ The court was concerned that "imposing civil liability on expert witnesses would discourage anyone who is not a full-time professional expert witness

243. See Brief for Amicus Curiae Washington State Trial Lawyers Association at 10, *Bruce v. Byrne-Stevens & Assoc. Engineers, Inc.*, 776 P.2d 666 (1989) (No. 55250-9).

244. 776 P.2d 666 (Wash. 1989).

245. *Id.*

246. *Id.*

247. *Id.*

248. *Id.*

249. *Id.*

250. *Id.*

251. *Id.* at 666-67.

252. *Id.* at 667.

253. *Id.*

254. *Id.* (quoting *Briscoe v. Lattue*, 460 U.S. 325, 332-33 (1983)).

255. *Id.*

from testifying. Only professional witnesses will be in a position to carry insurance to guard against such liability."²⁵⁶

The court conceded that there is some merit to the contention "that the threat of liability would encourage experts to be more careful, resulting in more accurate, reliable testimony."²⁵⁷ However, the court felt that the threat of losses in objectivity would outweigh the possible gains.²⁵⁸ The court reasoned that the safeguards of "the oath, the hazard of cross-examination and the threat of prosecution for perjury" were enough to ensure a witness' reliability.²⁵⁹

Three arguments were made by the respondents and *amicus curiae* on behalf of the Washington State Trial Lawyers Association in support of the nonapplicability of the general rule of witness immunity to this case: "The expert is retained and compensated by a party for his testimony; witness immunity is limited to defamation cases; and, witness immunity is limited to statements made at trial."²⁶⁰ The court decided that none of the arguments had merit.²⁶¹ The court stated that "[t]he purpose of granting immunity to participants in judicial proceedings is to preserve and enhance the judicial process."²⁶² The court stated that expert witnesses' participation in bringing litigation to a conclusion is as indispensable as prosecutors' and judges' participation, therefore experts should also be immune from suit.²⁶³ The court did not distinguish between retained experts and court appointed experts and stated "as a matter of law the expert serves the court."²⁶⁴

The court dismissed the argument that witness immunity was only meant to protect against defamation. The court discussed the *James v. Brown*²⁶⁵ decision. The Washington Supreme Court found no reason to follow the Texas Court's holding in *James* since it was "contrary to the majority rule."²⁶⁶ The court also pointed out that "*James* turns on a specific Texas statute which preempted the common law rule of immunity."²⁶⁷ Thus, the Washington Court distinguished *James* from the *Bruce* case since Washington has no such statute.

The court reasoned that "witness immunity must extend to the basis of the witness' testimony, or the policies underlying such immunity would be undermined . . . [since] [t]here is no way to distinguish the testimony from the acts and com-

256. *Id.* at 670. The court's fear was not well founded. There are many insurance plans available at a nominal fee to those who provide expert testimony, whether on a full or part-time basis. An example is the insurance policy available through the National Forensic Center, Princeton, N.J.

257. *Id.*

258. *Id.*

259. *Id.* at 667.

260. *Id.* at 668.

261. *Id.*

262. *Id.*

263. *Id.* at 669 (citations omitted).

264. *Id.*

265. 637 S.W.2d 914 (Tex. 1982).

266. *Bruce*, 776 P.2d at 671.

267. *Id.* at 671 (citing TEX. REV. CIV. STAT. ANN. art. 5547-18 (Vernon Supp. 1989), which "grants immunity to persons who without negligence perform examinations and other acts required by the Texas mental health code").

munications on which it is based.”²⁶⁸ Thus, the court held that “absolute immunity extends to acts and statements of experts which arise in the course of or preliminary to judicial proceedings.”²⁶⁹ Since “[the engineering firm] was hired specifically for litigation purposes” the court held it was entitled to absolute immunity.²⁷⁰

Justice Pearson, in a strongly worded dissent, stated that the majority misconstrued the issue in the case:

The question in this case is not whether an expert witness is immune from subsequent suit for defamatory statements made in a court of law. That question is well settled. Rather, [it is] whether a professional’s act of malpractice outside the courtroom is somehow immunized by the subsequent articulation of that negligently formed opinion in a judicial proceeding.²⁷¹

According to Justice Pearson, “[n]either the law of absolute immunity nor sound public policy dictates the result reached by the majority.”²⁷² “[T]he majority extends the immunity rule to shield otherwise actionable professional malpractice.”²⁷³ “[B]oth the law and common sense do not support such a judicially created rule.”²⁷⁴ The dissenting justices would hold that “the doctrine of absolute immunity does not bar the client’s action against his or her own expert for a negligently rendered professional opinion.”²⁷⁵

VII. ELEMENTS OF EXPERT WITNESS MALPRACTICE

Malpractice is defined by Black’s Law Dictionary as the

failure of one rendering professional services to exercise that degree of skill and learning commonly applied under all the circumstances in the community by the average, prudent, reputable member of the profession with the result of injury, or loss or damage to the recipient of those services or to those entitled to rely upon them.²⁷⁶

The traditional elements of the negligence action for malpractice are: (1) the existence of a duty owed to the plaintiff arising out of the relationship between the defendant and the plaintiff; (2) a negligent act or omission by the defendant in breach of that duty; (3) causation, i.e., but for the defendant’s negligence the plaintiff would not have been damaged; and (4) damages.²⁷⁷

268. *Id.* at 672.

269. *Id.* at 673.

270. *Id.*

271. *Id.* at 674.

272. *Id.*

273. *Id.*

274. *Id.*

275. *Id.* at 676.

276. BLACK’S LAW DICTIONARY 959 (6th ed. 1990).

277. See KEETON, *supra* note 9, § 30, at 164-65. See also Richard W. Wright, *Causation in Tort Law*, 73 CAL. L. REV. 1737 (1985).

A. Duties Owed By Expert Witnesses

The factors to consider in determining whether to impose a duty of care include the closeness of the causal connection between the expert's conduct to the injury suffered, and the foreseeability of the particular harm to the injured party.²⁷⁸ The expert witness may have a duty to the party who hired him or to a third party if he is the party most likely to suffer damage due to a negligently rendered decision. Arguably, the expert also owes a duty to the court and the attorneys. Standards of care are established for the well-known areas of forensic sciences.²⁷⁹ Emerging areas may need to look to other criteria for determining the standard of care.

Forensic science tends to follow trends in the medical field. There is a growing trend in tort litigation toward allowing discovery and admission at trial of code standards and policies because such material can provide evidence of the defendant's standard of care.²⁸⁰ Most of the forensic experts' professional associations have ethical codes which could be used as standards.²⁸¹

Professional ethical or conduct standards currently enter malpractice litigation at the expert testimony stage: By defining the prevailing practices, which are inculcated through the codes, and by discussing whether or not those practices have been followed in a given case, the expert is both telling the court and jury what the current ethical expectations involve, and informing them about specific procedures and developments.²⁸²

Professional liability carriers are even offering premium reductions for physicians who agreed to be bound by practice standards.²⁸³ The American Society of Anesthesiologists was the first specialty society to set standards in 1986 and they added to those standards in 1988.²⁸⁴ The American College of Cardiology, American College of Obstetricians and Gynecologists, American College of Radiology and American Academy of Orthopedic Surgeons worked in 1988 to refine the

278. See *Nally v. Grace Community Church*, 763 P.2d 948, 956 (Cal. 1988), cert. denied, 490 U.S. 1007 (1989).

279. See, e.g., R.L. Brunelle & A.A. Cantu, *Training Requirements and Ethical Responsibilities of Forensic Scientists Performing Ink Dating Examinations*, 32 J. FORENSIC SCI. 1502 (1987) (brief letter to the editor with enclosed training and ethical guidelines).

280. See Daniel E. Feld, Annotation, *Admissibility in Evidence, On Issue of Negligence, of Codes or Standards of Safety Issued or Sponsored by Governmental Body or By Voluntary Association*, 58 A.L.R. 3d 148 (1974); Robert Lind & Alan Ullberg, *Are Professional Codes of Ethics Acquiring the Force of Law*, 11 ALI-ABA COURSE MATERIALS J. 63 (1987). Note that the preamble of the American Bar Association's Model Rules of Professional Conduct states that: "Violation of a rule does not give rise to a cause of action nor should it create any presumption that illegal duty has been breached . . . they are not designed to be a basis for civil liability." MODEL RULES OF PROFESSIONAL CONDUCT Preamble (1983).

281. See, e.g., CAL. ASS'N OF CRIMINALISTS: CODE OF ETHICS (Revised May 17, 1985). The National Academy of Sciences issued a 22-page publication on laboratory ethics for young scientists. It is designed to guide graduate students in the ethical conduct of scientific research and addresses issues as data-reporting accuracy. See also 3 CORP. CRIME REP. 13 (1989).

282. Todd F. Simon, *Libel as Malpractice: News Media Ethics and the Standard of Care*, 53 FORDHAM L. REVIEW 449, 486-87 (1984).

283. Rebecca Voelker, *Leveling Trend in Premium Rates Seen Continuing*, AM. MED. NEWS, Jan. 13, 1989, at 17, 19.

284. See also *Standards for Patient Monitoring During Anesthesia at Harvard Medical School*, 8 J. AM. MED. ASS'N 256 (1986).

practice guidelines for their members.²⁸⁵ The American Medical Association is establishing parameters for various types of medical care.²⁸⁶

B. Causation

A crucial element of the tort of malpractice is causation. The imposition of tort liability has always required proof that the defendant caused the plaintiff's injury. Causation tests whether the defendant's actions were in fact connected by physical events to the plaintiff's injury. Proximate cause concerns whether the connection was close enough to allow compensation to the injured party.²⁸⁷ As stated by the past President of the American Academy of Forensic Sciences, "[t]he impact of the forensic scientist's conclusions affords no room for error, because such error may be the direct cause of an injustice."²⁸⁸ Liability and damages on the one hand, or, conviction and incarceration on the other, are a reasonable and foreseeable consequence of an expert witness' negligent testimony.

Admittedly, it may be difficult to establish a causal link between the defendant and the negligent expert testimony if more than one expert testifies, or there is a great deal of other evidence in the case. However, special verdict forms, as are used in civil cases and some criminal cases,²⁸⁹ could be used to identify which expert's testimony was relied upon in the jurors' decision making without inquiring impermissibly into the deliberation process. In some cases it may be readily apparent that the expert testimony alone "caused" the verdict, especially in light of the studies which conclude that expert testimony is accorded great weight by jurors.²⁹⁰

285. *Id.*

286. Paul Marcotte, *MD Guidelines — AMA Mulls Standards of Care*, 75 A.B.A. J. 28 (1989).

287. KEETON, *supra* note 9, § 41, at 264. "[L]egal responsibility must be limited to those causes which are so closely connected with the result and of such significance that the law is justified in imposing liability." *Id.*

288. Richard S. Frank, *The Essential Commitment For a Forensic Scientist*, 32 J. FORENSIC SCI. 5 (1987) (guest editorial). See also *supra* notes 135-52 and accompanying text regarding the *Caldwell* case where the court characterized the fingerprint expert's testimony as "damning." *State v. Caldwell*, 322 N.W.2d 574, 586 (Minn. 1982).

289. Generally, special verdicts in criminal cases are not favored. See *United States v. Spock*, 416 F.2d 165, 180-83 (1st Cir. 1969). However, there is no per se rule that such verdicts are absolutely forbidden. See *Heald v. Mullaney*, 505 F.2d 1241, 1245 (1st Cir. 1974), *cert. denied*, 420 U.S. 955 (1975).

"Most criticism of special verdicts in criminal cases is based on the danger that such verdicts might be devices for bringing judicial pressure to bear on juries in reaching their verdicts." *United States v. O'Looney*, 544 F.2d 385, 392 (9th Cir. 1976).

To ask the jury special questions might be said to infringe on its power to deliberate free from legal fetters; on its power to arrive at a general verdict without having to support it by reasons or by a report of its deliberations; and on its power to follow or not to follow the instructions of the court. Moreover any abridgement or modification of this institution would partly restrict its historic function, that of tempering rules of law by common sense brought to bear upon the facts of a specific case.

Id. (citation omitted).

Some state statutes provide that verdicts in criminal cases must be general. See TEX. CODE CRIM. PROC. ANN. art. 37.07(1)(a) (West 1991). See *New Jersey v. Simon*, 398 A.2d 861, 866-67 (N.J. 1979), for an extensive discussion of the caselaw regarding special verdicts and special interrogatories.

290. See *supra* notes 41, 44-47 and accompanying text.

C. Damages

An expert witness found liable for negligence will be liable in damages for the full extent of the identifiable loss. Experts will typically be held liable for all injuries proximately caused by or foreseeably arising from their breach of duty. In a criminal case, incarceration of a defendant is a reasonable and foreseeable consequence of an expert witness' incompetent opinion. Admittedly, damages in criminal cases would be more difficult to assess than in civil matters as estimating the value of a client's loss of liberty because of a criminal conviction caused by the expert's breach of duty is speculative. Experts concede "[t]here is no monetary measure for the damage done by false conviction of an innocent man, even though only a minor crime may be involved."²⁹¹ In view of the stigma and fear one experiences upon incarceration, damages should not be limited merely to economic loss. Limiting plaintiff's recovery to purely economic loss would not further the goal of deterring wrongful expert witness misconduct nor would a plaintiff be left with fair compensation in the face of wrongdoing.

There have been cases where courts awarded plaintiffs a certain amount per month for illegal confinement due to legal malpractice.²⁹² Recently, a state appeals court in California upheld a \$400,000 damage award for legal malpractice.²⁹³ The court upheld the plaintiff's recovery for actual damages and for emotional distress as a result of his incarceration for the involuntary manslaughter of his wife.²⁹⁴ The court held that the stigma of being convicted and the fear the plaintiff experienced upon incarceration was sufficient evidence of damages.²⁹⁵ Some states may have recovery limits for tort actions²⁹⁶ which would affect damage awards, since many expert witnesses are state employees.

VIII. CONCLUSION

Scientific evidence promises great benefits when used properly. Used improperly, it threatens not only individual cases, but potentially the entire justice sys-

291. See Ordway Hilton, *Ethics and the Document Examiner Under the Adversary System*, 21 J. FORENSIC SCI. 779, 781 (1976).

292. See, e.g., *Delesdernier v. Porterie*, 666 F.2d 116 (5th Cir.) (emotional damages awarded when counsel negligently withdrew from case), *cert. denied*, 459 U.S. 839 (1982); *Lawson v. Nugent*, 702 F. Supp. 91 (D.N.J. 1988); *Geddie v. St. Paul Fire & Marine Ins. Co.*, 354 So. 2d 718 (La. Ct. App. 1978) (the Louisiana Appellate Court awarded \$1500 per month for eight months for the defendant's incarceration due to counsel's negligence).

293. *Holliday v. Jones*, 264 Cal. Rptr. 448 (Cal. Ct. App. 1989).

294. *Id.* at 449.

295. *Id.* at 454 n.5. One of the plaintiff's cell-mates was nicknamed "Monster" "for apparently good reasons," and another cell-mate was a paranoid schizophrenic. *Id.*

296. See, e.g., FLA. STAT. ANN. § 768.28(5) (West 1990) which states:

[T]he state and its agencies and subdivisions shall be liable for tort claims in the same manner and to the same extent as a private individual . . . but liability shall not include punitive damages or interest for the period before judgment. Neither the state nor its agencies or subdivision shall be liable to pay a claim or a judgment by any one person which exceeds the sum of \$100,000 or any claim or judgment, or portions thereof which, when totaled with all other claims or judgments paid by the state or its agencies or subdivisions arising out of the same incident or occurrence, exceeds the sum of \$200,000.

The same statute states that a judgment may be "rendered in excess of these amounts . . . and that portion of the judgment that exceeds these amounts may be reported to the Legislature, but may be paid in part or in whole only by further act of the Legislature." *Id.*

tem.²⁹⁷ Expert witnesses owe their clients certain duties relating to their professional knowledge and skill similar to those owed clients by other professionals: doctors, engineers, accountants, architects, and attorneys.

The law does little to regulate the quality of expert testimony *per se*. Courts have held that the principal safeguard against errant expert testimony is the opportunity for opposing counsel to cross examine. However, cross examination is not an adequate safeguard. Trial lawyers are usually reluctant to incur the risks involved in challenging an expert. Many lawyers do not even avail themselves of expert services; therefore they do not have the knowledge to effectively cross-examine opposing experts.

Solutions offered to curb expert abuses include: capping expert witness fees; pre-screening experts; using only court appointed experts; adherence to a strict code of ethics; peer review; and a science court. To date, these existing remedies for controlling expert witness negligence have proven inadequate and/or unworkable. Thus, it is logical to pursue a malpractice cause of action since experts have gained stature as professionals and should be accountable for their negligence. The expert witness's importance to the legal community justifies the imposition of malpractice liability. Since the injuries and damages arising from the malpractice of expert witnesses are genuine, the law is obligated to provide a remedy. A cause of action based on expert witness malpractice will ensure that experts are accountable for their opinions and will protect and compensate individuals who are damaged by their negligence.

297. Fredrick I. Lederer, *Scientific Evidence—An Introduction*, 25 WM. & MARY L. REV. 517, 518 (1984).