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A COMPARATIVIST CRITIQUE OF THE INTERFACE BETWEEN HEARSAY AND EXPERT OPINION IN AMERICAN EVIDENCE LAW†

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[D]espite its superficial simplicity this area of the Law of Evidence seems to resemble a minefield which some judges have not successfully crossed

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In the United States, litigation has fast become trial by expert following the enactment of the Federal Rules of Evidence in 1975.² For example, the Jury Verdict Reporter is published annually for Cook County, Illinois (the Chicago area). For years, the Reporter has identified experts who testify regularly in local trials. As recently as 1974, the Reporter listed only 188 regularly testifying experts.³ By 1989, that number had skyrocketed to 3,100—a 1,540% increase.⁴ According to the Administrative Office of Illinois Courts,

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¹ Rosemary Pattenden, *Expert Opinion Evidence Based on Hearsay*, 1982 CRIM. L. REV. 85, 95.

² See FED. R. EVID. 702 advisory committee's note (proposed amendment) ("The use of [expert] testimony has greatly increased since enactment of the Federal Rules of Evidence").

³ Andrew Blum, *Experts: How Good Are They?: Lawyers for Plaintiffs, Defense Try to Decide*, NAT'L L.J., July 24, 1989, at 1, 38.

⁴ *Id.* at 38.

in 1987 "Cook County averaged at least one expert per trial."⁵ The expert has assumed a virtually ubiquitous role in contemporary litigation.

Although commentators often refer to the "role" of the expert at trial in the singular, in truth an expert witness can play one of three very different roles.⁶ In some cases, an expert testifies exclusively to facts.⁷ Assume, by way of example, that an accused is charged with rape. The alleged victim testifies that, during the rape, she dug her fingernails into the rapist's chest and scratched him badly. The day after the alleged rape, by happenstance, the accused visited his physician. During the visit, the accused removed his shirt and the physician examined the accused's upper torso. The physician could testify that there were no scratches on the accused's chest. Like a layperson, the physician would be permitted to testify to that fact. The physician could qualify as an expert to testify to various opinions, but the physician's expert status does not render her incompetent to relate facts of which she has personal knowledge.

At the polar extreme, an expert may testify solely about general technical principles.⁸ In the rape case, for instance, the accused might call a psychologist as another defense witness. The accused could attempt to elicit the psychologist's testimony about the general unreliability of eyewitness testimony. A minority of courts admit this type of testimony.⁹ In many of those jurisdictions that admit such testimony, however, the expert must stop short of opining that any particular witness, such as the complainant in the rape case, is mistaken.¹⁰ Although the research to date supports some generalizations about the effect of factors such as stress on the accuracy of

⁵ *Id.*

⁶ RONALD L. CARLSON ET AL., EVIDENCE IN THE NINETIES 519 (3d ed. 1991) [hereinafter EVIDENCE IN THE NINETIES].

⁷ *Id.*

⁸ *Id.* The Advisory Committee note to Federal Rule of Evidence 702 states: Most of the literature assumes that experts testify only in the form of opinions. The assumption is logically unfounded. The rule accordingly recognizes that an expert on the stand may give a dissertation or exposition of scientific or other principles relevant to the case, leaving the trier of fact to apply them to the facts.

FED. R. EVID. 702 advisory committee's note.

⁹ PAUL C. GIANNELLI & EDWARD J. IMWINKELRIED, SCIENTIFIC EVIDENCE § 9-5, at 294-95 (1986 & Supp. 1990) [hereinafter SCIENTIFIC EVIDENCE].

¹⁰ Robert P. Mosteller, *Legal Doctrines Governing the Admissibility of Expert Testimony Concerning Social Framework Evidence*, LAW & CONTEMP. PROBS., Autumn 1989, 85, 101-02, 115, 118-19.

eyewitness perception, the state of the psychological art does not permit the expert to diagnose a particular witness as being mistaken.¹¹ Thus, the defense counsel may not invite the psychologist to apply generalizations to the specific facts of the pending case and speculate that the complainant's identification of the accused rapist is untrustworthy.

As we have seen, at trial an expert witness can testify either exclusively about facts or solely about general theories. In the typical case, the expert also plays a third role: the expert derives an opinion about the significance of the facts in the instant case by applying a general principle or theory to those facts.¹² For example, consider a variation on the rape hypothetical. The accused calls a psychiatrist as the next defense witness. Pursuant to court order, the psychiatrist examined the complainant before the trial. Based on that examination, the psychiatrist is prepared to testify that the complainant suffers from a psychosis which produces sexual delusions that the complainant cannot distinguish from real events. In this variation of the hypothetical, the expert is prepared not only to vouch for a general theory, such as the symptomatology for the psychosis, but also to apply the general theory to the specific facts of the complainant's case history to form an opinion about the complainant's credibility.

When the expert testifies in this third mode, the expert's testimony has a syllogistic structure.¹³ The constituent parts of a syllogism are the major premise, the minor premise, and the conclusion.¹⁴ In this mode of testimony, the major premise is the underlying technical principle—often a scientific proposition¹⁵—that serves as the expert's general explanatory theory.¹⁶ In the rape hypothetical, the defense psychiatrist's major premise might be that if a person exhibits symptoms *A*, *B* and *C*, she probably suffers from

¹¹ Stephen C. Pass, *Questioning the Research on Eyewitness Reliability*, 1987 PRACTICAL PROSECUTOR 15, 16.

¹² Edward J. Imwinkelried, *The 'Bases' of Expert Testimony: The Syllogistic Structure of Scientific Testimony*, 67 N.C. L. REV. 1, 2-3 (1988) [hereinafter Imwinkelried, *The 'Bases' of Expert Testimony*].

¹³ *Id.*

¹⁴ *Id.*

¹⁵ In a National Center for State Courts survey of judges and attorneys, forty-four percent indicated that they encountered scientific evidence in at least thirty percent of their cases. *Study to Investigate Use of Scientific Evidence*, NAT'L CNTR. FOR STATE COURTS REP., Aug. 1980, at 1.

¹⁶ Imwinkelried, *The 'Bases' of Expert Testimony*, *supra* note 12, at 2.

mental disease *D*. The expert's minor premise is the case-specific data to which the expert applies the major premise. In the rape prosecution, the defense psychiatrist would search the complainant's past to determine whether she has displayed symptoms *A*, *B*, and *C*. The application of the major premise to the minor premise yields the conclusion, an opinion relevant to the facts of consequence in the pending case.

Although it is relatively simple to describe the structure of the expert's testimony, in Professor Pattenden's words "this area of the Law of Evidence" has proven to be "a minefield" for many courts.¹⁷ Suppose that to persuade the jury to accept the expert's major premise, the witness's proponent asks the expert to mention other authorities who subscribe to the same theory. May the expert detail the research of these other authorities without producing the authorities in court? The proponent might go further. The proponent might request that the expert identify and cite a treatise in the expert's field that describes the research validating the hypothesis on which the expert relies. Must the treatise be a standard work in the expert's discipline?¹⁸ May the expert go so far as to quote the precise passage that supports the expert's position? These questions are troubling courts in the United States.¹⁹

Although the above questions concern the expert's major premise, other controversies bedevil the expert's minor premise. All courts agree that the expert should be permitted to factor information into her minor premise when the expert has firsthand knowledge of the information.²⁰ What if, however, the expert lacks personal knowledge of the information? Rather, the expert intends to rely on the oral reports of third parties. Those third parties, however, will not appear at trial, and there will not be any independent evidence corroborating their reports. May the expert nevertheless base her opinion on such reports? If so, under what circum-

¹⁷ Pattenden, *supra* note 1, at 95.

¹⁸ For a more detailed discussion of this issue, see Comment, *Learned Treatises as Direct Evidence: The Alabama Experience*, 1967 DUKE L.J. 1169.

¹⁹ See, e.g., *Schuchman v. Stackable*, 555 N.E.2d 1012 (1990).

²⁰ CHARLES T. MCCORMICK ET AL., MCCORMICK ON EVIDENCE § 14, at 35 (Edward W. Cleary ed., 3d ed. 1984).

stances?²¹ For years, these questions have divided American courts²² and commentators.²³

The common denominator of these questions is that they involve the interface between expert opinion and hearsay. Neither evidentiary doctrine was invented in the United States. Quite to the contrary, courts in the United States imported both doctrines from England.²⁴ Furthermore, the courts in other common-law jurisdictions have grappled with the same questions now facing courts in the United States.²⁵ Admittedly, the issues tend to arise more frequently in the published United States opinions,²⁶ but courts throughout the common-law world have encountered identical problems.²⁷ Divergence of authority has persisted in the United States despite the voluminous literature produced by evidence commentators here. This is an appropriate time to bring a comparativist perspective to bear on these issues. An examination of the experience in other common-law countries will assist the courts in the United States struggling with the questions of expert testimony and hearsay.

The first section of this article describes the common-law rationale for admitting expert opinion testimony, a rationale to which most common-law jurisdictions, including the United States, still adhere. That basic rationale is the point of agreement among the common-law judicial systems. The second section of the article describes and contrasts the differences between expert opinion rules in the United States and the rules in effect in other common-law

²¹ For a more detailed discussion of this issue, see Ronald L. Carlson, *Policing the Bases of Modern Expert Testimony*, 39 VAND. L. REV. 577 (1986).

²² Compare *In re Japanese Elec. Prods. Antitrust Litig.*, 723 F.2d 238, 275-79 (3d Cir. 1983) (trial court does not determine whether bases of expert opinion are of a type reasonably relied upon by experts in the field) with *In re "Agent Orange" Prods. Liab. Litig.*, 611 F. Supp. 1223, 1243-45 (E.D.N.Y. 1985) (trial court does determine whether bases of expert opinion are of a type reasonably relied upon by experts in the field). See generally 2 GREGORY P. JOSEPH & STEPHEN A. SALTZBURG, *EVIDENCE IN AMERICA: THE FEDERAL RULES IN THE STATES* § 52.3 (1987 & Supp. 1990).

²³ Compare Carlson, *supra* note 21, and Ronald L. Carlson, *Collision Course in Expert Testimony: Limitations on Affirmative Introduction of Underlying Data*, 36 U. FLA. L. REV. 234 (1984) with Paul R. Rice, *Inadmissible Evidence as a Basis for Expert Opinion Testimony: A Response to Professor Carlson*, 40 VAND. L. REV. 583 (1987).

²⁴ MCCORMICK, *supra* note 20, § 244. See *infra* notes 28-39 and accompanying text.

²⁵ See, e.g., Anthony Kenny, *The Expert in Court*, 99 LAW Q. REV. 197 (1983).

²⁶ RUPERT CROSS, *EVIDENCE* 425 (D.L. Mathieson ed., 4th N.Z. ed. 1989).

²⁷ See SIDNEY L. PHIPSON ET AL., *PHIPSON ON EVIDENCE* 826-27 (M.N. Howard et al. eds., 14th ed. 1990); PETER K. MCWILLIAMS, *CANADIAN CRIMINAL EVIDENCE* 258-59 (2d ed. 1984); H.A. Hammelmann, *Expert Evidence*, 10 MOD. L. REV. 32 (1947).

countries. In describing the various rules, this section emphasizes their relationship to the hearsay doctrine. This section also demonstrates that, while courts in the United States have been more reluctant than other common-law courts to permit experts to refer to technical literature to elaborate their major premise, the United States courts have gone much farther than most common-law jurisdictions in allowing experts to include otherwise inadmissible hearsay reports in their minor premise. The third and final section of the article assesses the differences demonstrated in the second section. This section argues that the rules followed in most of the common-law world are preferable to the rules in force in the United States because the latter rules more closely follow the basic rationale for admitting expert opinion.

I. A POINT OF AGREEMENT THROUGHOUT THE COMMON-LAW WORLD: THE GENERAL RATIONALE FOR ADMITTING EXPERT OPINION EVIDENCE

All common-law systems adhere to the same basic rationale for admitting expert testimony. As section II of this article points out below, the differences between the approaches to expert opinion problems taken in the United States and other common-law jurisdictions are marked. Those differences are all the more remarkable because all common-law systems, including the United States', begin with an identical starting point for analyzing expert opinion problems.

A. *The Development of the Rationale in Other Common-Law Jurisdictions*

As is still true today, the early English common-law evidentiary norm was that a witness should recite facts rather than opinions.²⁸ Although the norm held true in other common-law countries such as Canada,²⁹ there is a long tradition of reliance on experts in the common-law world.³⁰ The tradition dates back to the fourteenth century.³¹ In a mayhem case in 1345, surgeons were summoned

²⁸ SIR RUPERT CROSS ET AL., *CROSS AND WILKINS OUTLINE OF THE LAW OF EVIDENCE* 159 (Colin Tapper ed., 6th ed. 1986); John Basten, *The Court Expert in Civil Trials—A Comparative Appraisal*, 40 MOD. L. REV. 174, 175-76 (1977).

²⁹ J.L. Clendenning, *Expert Testimony*, 9 CRIM. L.Q. 415, 417-18 (1966-67); R.A. Huber, *Expert Witness*, 2 CRIM. L.Q. 449, 450 (1959-60).

³⁰ Basten, *supra* note 28, at 175.

³¹ *Id.* at 190.

from London to determine if the alleged victim's wound was fresh.³² By the middle of the sixteenth century, expert testimony had become a routine practice.³³ In many of the old cases, the expert served as the functional equivalent of a juror³⁴ but the modern role of the expert witness emerged when the jury's role changed to that of forming opinions from the facts presented.³⁵ *Folkes v. Chadd*,³⁶ a 1782 opinion by Lord Mansfield, is usually cited as the seminal case.³⁷ In *Folkes*, the court permitted a partisan expert,³⁸ Mr. Smeaton, to give expert engineering testimony on the question of whether an embankment had caused the silting of a harbor.³⁹

The justification advanced for admitting expert opinion such as Smeaton's testimony was a necessity rationale; the question before the court was a technical matter exceeding the court's competence.⁴⁰ The trier of fact had to decide whether to draw a particular inference, and the expert was in a better position to make that decision than the normal layperson.⁴¹ The expert was in a superior position to do so because the expert had special ability,⁴² that is, knowledge or skill the average layperson lacked. It was recognized early that the essence of a witness's expertise is the possession of knowledge or skill that better enables the witness to decide whether to draw a particular inference.⁴³

This rationale for admitting expert opinion is reflected in both the definition of expert and the traditional method of presenting expert testimony. The common-law world defines an expert as a

³² *Id.* at 175; G.D. NOKES, AN INTRODUCTION TO EVIDENCE 176 (4th ed. 1967).

³³ Basten, *supra* note 28, at 175; FRANK BATES, PRINCIPLES OF EVIDENCE 219 (3d ed. 1985); CROSS, *supra* note 26, at 429.

³⁴ Basten, *supra* note 28, at 175. At early common law, jurors were the source of the facts presented; jurors were drawn from the local community on the theory that members of that community were most likely to have information about the facts in issue. JOHN H. WIGMORE, EVIDENCE IN TRIALS AT COMMON LAW § 1800 (Chadbourn rev. 1976). As Basten indicates, the jurors' role then evolved into one of drawing conclusions based on testimony furnished by independent witnesses.

³⁵ Basten, *supra* note 28, at 175.

³⁶ 99 Eng. Rep. 589 (K.B. 1782).

³⁷ McWILLIAMS, *supra* note 27, at 239; Basten, *supra* note 28, at 176; J.H. Hollies, *Hearsay as the Basis of Opinion Evidence*, 10 CRIM. L.Q. 288, 291 (1967-68).

³⁸ Basten, *supra* note 28, at 176.

³⁹ *Folkes*, 99 Eng. Rep. at 590.

⁴⁰ Clendinning, *supra* note 29, at 418; Huber, *supra* note 29, at 450.

⁴¹ ERIC J. EDWARDS, CASES ON EVIDENCE IN AUSTRALIA 760 (3d ed. 1981); Huber, *supra* note 29, at 450.

⁴² G.D. NOKES, *supra* note 32, at 177.

⁴³ *Id.*

person who has special knowledge or skill.⁴⁴ A scientist qualifies as an expert, enjoying such status because of special knowledge gained by formal study and systematic research. Similarly, an automobile mechanic can qualify as an expert on diagnosing the cause of an engine failure; the mechanic possesses unique diagnostic skill developed through practical experience. The expert's knowledge or skill becomes the source of the expert's major premise⁴⁵—a proposition about the symptomatology of a psychosis or the cause of a certain type of brake failure. To qualify as an expert, the witness need not know anything about the facts of the instant case; the witness may have no personal knowledge at all of the data that will serve as the minor premise at trial. The expert's distinguishing characteristic is the possession of knowledge or skill that equips the expert with a major premise that she can apply to the specific facts of the pending case.

The traditional method of presenting expert evidence reflects the same underlying rationale. The common law developed a special form, the hypothetical question, to permit the expert to apply her special knowledge or skill to the facts of the instant case.⁴⁶ In this method, the attorney initially asks the expert to assume the truth of certain facts⁴⁷—data forming the minor premise in the syllogism. The attorney then asks the expert whether, based on those assumed facts, she can form an opinion or draw an inference on a specified topic. If the witness answers in the affirmative, the attorney lastly requests that the expert state the opinion. Even if the witness has no pretrial exposure to the facts of the case, much less any personal knowledge of the facts, the witness can opine in response to the hypothesis. Despite her ignorance of the case-specific data, the witness can serve as an expert and offer an opinion. The witness can do so because the essence of expertise is the ability to supply the major premise. The witness need not have any firsthand knowledge of the facts listed in the hypothesis; those facts were to be proven by other witnesses.⁴⁸

⁴⁴ The civil-law definition of expert is similar to that of the common-law definition. See Hammelmann, *supra* note 27, at 36 ("Continental systems define an expert as a person who conveys to the tribunal scientific information on abstract questions of fact.").

⁴⁵ See *supra* notes 15–16 and accompanying text for a discussion of an expert's major premise.

⁴⁶ MCCORMICK, *supra* note 20, § 14 at 35–37, § 16 at 41.

⁴⁷ *Id.* § 14 at 35.

⁴⁸ *Id.* § 14 at 37; LEONARD H. HOFFMAN & D.T. ZEFFERTT, *THE SOUTH AFRICAN LAW OF EVIDENCE* 101 (4th ed. 1988) ("on the basis of facts proved by others"); Kenny, *supra* note 25, at 199.

In summary, to qualify as an expert at common law, it is both necessary and sufficient that the witness have special knowledge or skill that can serve as the source of the witness's major premise. If the witness possesses such knowledge or skill, the common law of evidence confers expert status on the witness. The witness does not need any acquaintance with the facts of the pending case to fall within the common-law definition of expert. Thus, the witness typically functions as an expert at trial by applying a major premise, drawn from her special knowledge or skill, to facts independently established by other witnesses. In the common-law scheme, the expert is not an official fact finder⁴⁹ whose expertise lies in determining credibility. Rather, the expert's essential function is to bring specialized knowledge and skill to evaluate facts proven by other witnesses. The witness's expertise relates to the major premise in the syllogism, not the minor premise.

B. *The Adoption of the Rationale in the United States*

United States jurisdictions have adopted the same rationale for introducing expert opinion evidence. Just after the turn of this century, Learned Hand published his classic article on expert testimony.⁵⁰ In the article, Judge Hand relied heavily on cases and writings from other common-law jurisdictions.⁵¹ After reviewing cases, such as *Folkes*, that discussed the rationale for admitting expert opinion,⁵² Judge Hand endeavored to define the role of the expert in a United States courtroom. Hand echoed the English cases in asserting that "[t]he whole object of the expert is to tell the jury, not [the] facts [of the instant case], . . . but general truths derived from his specialized experience."⁵³ The trier of fact has the ultimate responsibility to determine credibility and the merits of the case.⁵⁴ Drawing on his extraordinary knowledge or skill, however, the expert can contribute to the fact-finding process by apprising the trier of "general truths" of which the typical layperson is ignorant.⁵⁵

In several respects, the Federal Rules of Evidence demonstrate the continuing vitality of this rationale for introducing expert tes-

⁴⁹ Hollies, *supra* note 37, at 290.

⁵⁰ Learned Hand, *Historical and Practical Considerations Regarding Expert Testimony*, 15 HARV. L. REV. 40 (1901-02).

⁵¹ See *id.* at 42-49.

⁵² *Id.* at 48 & n.1.

⁵³ *Id.* at 54.

⁵⁴ See *id.* at 55-56.

⁵⁵ *Id.* at 55.

timony. Rules 702 to 706 govern the admissibility of expert opinion.⁵⁶ The first paragraph of the advisory committee note to Rule 702 declares that "an intelligent evaluation of facts is often difficult or impossible without the application of some scientific, technical, or other specialized knowledge. The most common source of this knowledge is the expert witness"⁵⁷ The text of Rule 702 likewise is premised on the common-law model. Rule 702 defines an expert as a person qualified by special "knowledge [or] skill."⁵⁸ The rule sanctions the admission of expert opinion when an expert can draw an inference completely beyond a layperson's capability as well as when the expert can augment significantly the reliability of an inference barely within a layperson's grasp.⁵⁹ The rule broadly permits expert testimony whenever "common sense" suggests that the "untrained layman" trier of fact will gain "enlightenment from those having a specialized understanding of the subject."⁶⁰ As at common law, Federal Rule 705 allows the witness's proponent to use a hypothetical question to provide the expert with the minor premise to which the expert will apply the major premise.⁶¹ Hence, it remains true in the United States today that a witness's complete ignorance of the minor premise information neither precludes the witness from qualifying as an expert, nor bars the presentation of the witness's opinion at trial.

II. THE POINTS OF DISAGREEMENT IN THE COMMON-LAW WORLD: THE SPECIFIC EVIDENTIARY RULES RESTRICTING THE ADMISSIBILITY OF EXPERT OPINION

In the United States and the rest of the common-law world, the courts have developed not only a general rationale for admitting expert opinion, but also specific rules to regulate the admission of expert testimony. Although all common-law jurisdictions employ the same basic rationale as their initial premise, rules governing the

⁵⁶ FED. R. EVID. 702-06.

⁵⁷ *Id.* 702 advisory committee's note.

⁵⁸ *Id.* 702.

⁵⁹ David McCord, *Syndromes, Profiles, and Other Mental Exotica: A New Approach to the Admissibility of Nontraditional Psychological Evidence in Criminal Cases*, 66 OR. L. REV. 414, 418 (1987).

⁶⁰ FED. R. EVID. 702 advisory committee's note (quoting Mason Ladd, *Expert Testimony*, 5 VAND. L. REV. 414, 418 (1952)).

⁶¹ *Id.* 705 advisory committee's note (the proponent may use the hypothetical question technique "if he chooses").

admission of expert testimony in the United States differ significantly from the rules in effect in most other common-law countries.

A. *The Specific Evidentiary Rules in the United States*

1. The Admissibility of Evidence Relating to the Expert's Major Premise

To understand the United States law governing the admissibility of evidence relating to an expert's major premise, it is critical to distinguish between two questions. The first question arises when a judge is ruling on the admissibility of the expert testimony. The judge may make the ruling either on a pretrial *in limine* motion or out of the jury's hearing at trial. The question is whether the judge may consider an expert's reference to other experts' research or quotations found in texts written by professionals in the particular field of expertise. Most judges in the United States answer that question in the affirmative. There are several theories for permitting the judge to do so.

One theory is that technical exclusionary rules, such as the hearsay doctrine, are inapplicable to this stage of the judge's determination of the admissibility of the evidence. Federal Rules of Evidence 104(a)-(b) prescribe the procedures the judge must follow in ruling on the admissibility of evidence. For example, when the judge passes on the admissibility of expert opinion, Rule 104(a) controls.⁶² The last sentence of the rule states that "[i]n making [her] determination [the judge] is not bound by the rules of evidence except those with respect to privileges."⁶³ That sentence renders the limitations of the hearsay rule inapplicable to the information the judge considers before ruling on admissibility.⁶⁴ Thus, if the opponent objects on the basis that the witness's references to other experts' research amount to inadmissible hearsay, the expert's proponent can respond that the hearsay objection is inapposite at this point in the proceeding.

Not all jurisdictions take the position that the technical exclusionary rules are inapplicable to the judge's admissibility determi-

⁶² In pertinent part, Rule 104(a) states that "[p]reliminary questions concerning the qualification of a person to be a witness, the existence of a privilege, or the admissibility of evidence shall be determined by the court." FED. R. EVID. 104(a).

⁶³ *Id.*

⁶⁴ *State v. Cardone*, 368 A.2d 952, 955 (N.J. Super. Ct. App. Div. 1976), *cert. denied*, 75 N.J. 3 (1977).

nation.⁶⁵ Even in jurisdictions extending the exclusionary rules to the judge's ruling, however, the expert's references and quotations can sometimes be admitted as nonhearsay. Hearsay can be defined roughly as an out-of-court assertion offered to prove the truth of the assertion.⁶⁶ In many cases, the theory of logical relevance for offering the references to outside research does not require that the trier treat the references as proof of the truth of the assertion. Therefore, hearsay is not an issue. That is, when the references are logically relevant for a purpose other than for their proof of their assertions, the references are nonhearsay and, consequently, admissible over a hearsay objection.

The so-called *Frye* test is the underpinning of one nonhearsay theory for admitting expert opinion evidence. Under the teaching of *Frye v. United States*, scientific evidence is inadmissible unless the evidence is based on a theory or technique that is generally accepted within the pertinent scientific circles.⁶⁷ The majority of American jurisdictions still subscribe to the *Frye* test for the admissibility of scientific testimony.⁶⁸ Under *Frye*, the expert's proponent has a tenable argument that references to other experts' research are nonhearsay.

One common nonhearsay use of evidence is as a verbal act or operative fact.⁶⁹ Suppose, for example, that the issue is whether the plaintiff and defendant entered into a valid contract. Under the objective theory of mutual assent, the plaintiff may introduce testimony about the plaintiff's and defendant's statements during their negotiations. If the statements agree, the agreement is the proof of mutual assent that forms the contract.⁷⁰ Legal consequences flow directly from the operative fact that the contents of the statements agree. The proponent of the expert's references can argue by analogy. Under *Frye*, the pivotal question is whether the majority of the experts in the discipline agree on the validity of the theory. The proponent need not offer the out-of-court experts' statements for their truth; rather, the proponent can argue that in and of itself,

⁶⁵ EDWARD J. IMWINKELRIED ET AL., CALIFORNIA EVIDENTIARY FOUNDATIONS 3-4 (1988) [hereinafter CALIFORNIA EVIDENTIARY FOUNDATIONS]; MCCORMICK, *supra* note 20, § 53 at 135-39.

⁶⁶ FED. R. EVID. 801(a)-(c).

⁶⁷ 293 F. 1013 (D.C. Cir. 1923) (no. 3968).

⁶⁸ GIANNELLI & IMWINKELRIED, *supra* note 9, § 1-5 at 10-11.

⁶⁹ EVIDENCE IN THE NINETIES, *supra* note 6, at 577.

⁷⁰ EDWARD J. IMWINKELRIED, CONTRACT LAWSUITS: TRIAL STRATEGIES AND TECHNIQUES § 5-4a, at 66 (2d ed. 1989).

the agreement between and among the statements establishes the general acceptance demanded by *Frye*.⁷¹ Consequently, the judge can consider the other experts' statements in ruling on the admissibility of the opinion.

The second, more difficult, question is whether the expert may refer to other experts' research and quote their works in the hearing of the jury, after the judge has ruled the expert's opinion admissible. At this stage, the proponent can no longer rely on the theories discussed in the preceding paragraphs because exclusionary rules such as the hearsay doctrine unquestionably apply at the trial on the merits. Hence, the proponent cannot rely on the last sentence of Rule 104(a). Moreover, if the judge has ruled the evidence admissible, compliance with *Frye* is no longer in issue. For that reason, the proponent cannot characterize the references as nonhearsay on the theory that the very agreement among the statements proves general acceptance; the issue of general acceptance is for the judge rather than the jury.⁷² At this point, the existence of general acceptance has ceased to be an issue.

In some cases, however, there are theories the proponent can successfully invoke to rationalize presenting the expert's references to the jury.⁷³ One theory is that the references constitute nonhearsay. Like the use of statements as verbal acts, "mental input" is a widely recognized nonhearsay use of evidence.⁷⁴ In a given case, the issue might be whether the manufacturer of a product knew that the product had a tendency to malfunction. Under the substantive law, the manufacturer's knowledge might trigger a duty to redesign the product or entitle the plaintiff to exemplary damages. To prove knowledge, the plaintiff could offer testimony that someone told the manufacturer that his product had the tendency to

⁷¹ Cf. *State v. Cary*, 239 A.2d 680, 684 (N.J. Super. Ct. Law Div. 1968) (outside statements by other experts revealing disagreement over the accuracy and reliability of voiceprint identification were admissible to prove that the identification device lacked general scientific acceptance); EDWARD J. IMWINKELRIED, *THE METHODS OF ATTACKING SCIENTIFIC EVIDENCE* § 4-5(B), at 134-35 (1982) [hereinafter *METHODS OF ATTACKING SCIENTIFIC EVIDENCE*].

⁷² *People v. King*, 72 Cal. Rptr. 478, 492 (Cal. Ct. App. 1968); EDWARD J. IMWINKELRIED, *Judge Versus Jury: Who Should Decide Questions of Preliminary Facts Conditioning the Admissibility of Scientific Evidence?*, 25 WM. & MARY L. REV. 577, 579 (1984).

⁷³ *Capps v. Manhart*, 458 N.W.2d 742, 746 (Neb. 1990) ("Expert witnesses quite often rely on sources of research and literature as basis of their opinions, and a reference to those sources during testimony does not reduce that testimony to hearsay. One of appellant's experts even made reference to 'the literature' in describing the effect of calcium hydroxide in dentistry. The literature referred to by the appellee was not offered as independent evidence of its truth . . .").

⁷⁴ EVIDENCE IN THE NINETIES, *supra* note 6, at 578.

malfunction. The statement would put the manufacturer on notice of the product's tendency.⁷⁵ An expert's proponent might contend that the expert's references to other experts' research and reports are admissible on a theory parallel to the "mental input" theory. The proponent can urge that she has the right to show that the expert is reasonable in accepting the major premise, for example, a particular scientific theory. The fact that the expert has read articles by leading researchers vouching for the theory makes it more sensible for the expert to subscribe to the theory. The references would then be logically relevant on a nonhearsay theory to help convince the jury that the expert's opinion is "better grounded and more trustworthy."⁷⁶

The dilemma, of course, is that the proponent often desires to offer the references on a hearsay theory as well. Ultimately, the proponent wants to persuade the trier of fact that the expert's major premise is valid.⁷⁷ As a practical matter, at least when the opposing attorney is a skilled advocate, the proponent must argue to the jury that the expert's underlying theory is valid; if the proponent does not, the expert's testimony is vulnerable. A skilled opposing attorney will treat the expert's credibility and the theory's validity as alternative points of attack.⁷⁸ Therefore, the opposing attorney will argue to the jurors that, for example, even if the expert is a sincere, reasonable person, they should reject the theory because there has been no direct evidence of its experimental verification.

Hearsay issues arise, however, as soon as the proponent asks the expert to describe research by other experts. The other researchers to whom the expert witness makes reference are out-of-court declarants.⁷⁹ In effect, the references to the other researchers are assertions that their experimentation has validated the theory, and the proponent wants the trier of fact to reach precisely that conclusion. References to either the research or quotations from written research summaries then would constitute hearsay.⁸⁰ Thus, if the proponent offers the references and quotations for the truth of the asserted validity of the principle, the proponent becomes obliged to find an applicable hearsay exception. Unfortunately,

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ See FED. R. EVID. 901(b)(9).

⁷⁸ THE METHODS OF ATTACKING SCIENTIFIC EVIDENCE, *supra* note 71, chs. 9-10.

⁷⁹ FED. R. EVID. 801(b).

⁸⁰ *Id.* 801(a)-(c).

modern American evidence law affords only a single, narrow hearsay exception to which the proponent can cite.

The exception is the learned treatise doctrine.⁸¹ This doctrine excepts from the hearsay exclusion published treatises and like materials that are established as a reliable authority in their field.⁸² Prior to the adoption of the Federal Rules of Evidence in 1975, this exception was a distinct minority view;⁸³ a little more than a handful of states recognized the exception.⁸⁴ With the adoption of a version of the Federal Rules by 34 states,⁸⁵ however, the exception has become a majority rule.

Although the exception now exists in most states, the scope of the exception is quite limited.⁸⁶ There are "significant" limitations on the use of the exception.⁸⁷ Federal Rule 803(18) codifies one of the more liberal versions of the exception, but even that version is restricted. To begin with, Rule 803(18) refers only to "treatises, periodicals, or pamphlets."⁸⁸ All the items referred to are written material. It would stretch the statutory language to extend the exception to apply to an in-court witness's reference to another expert's research when no written summary of the research exists. Like Rule 803(18), Rule 803(6), discussing the business entry exception, refers only to written matter. Courts have construed the latter rule as furnishing no authorization for admitting oral business reports.⁸⁹ Further, to come within the explicit parameters of the statutory exception, material must have been "published."⁹⁰ Even a

⁸¹ Federal Rule of Evidence 803(18) sets out a version of the learned treatise doctrine: The following are not excluded by the hearsay rule, even though the declarant is available as a witness: Learned treatises—To the extent called to the attention of an expert witness upon cross-examination or relied upon by the expert witness in direct examination, statements contained in published treatises, periodicals, or pamphlets on a subject of history, medicine, or other science or art, established as a reliable authority by the testimony or admission of the witness or by other expert testimony or by judicial notice.

Id. 803(18).

⁸² *See id.*

⁸³ MCCORMICK, *supra* note 20, § 921 at 900.

⁸⁴ Edward J. Imwinkelried, *The Use of Learned Scientific Treatises Under Federal Rule of Evidence 803(18)*, 18 TRIAL, Feb. 1982, at 56 (Alabama, California, Iowa and Wisconsin were the leading jurisdictions).

⁸⁵ EVIDENCE IN THE NINETIES, *supra* note 6, at 26–27.

⁸⁶ Samuel S. Wilson, Note, *Medical Treatises as Evidence—Helpful But Too Strictly Limited*, 29 U. CIN. L. REV. 255 (1960).

⁸⁷ MCCORMICK, *supra* note 20, § 921 at 901.

⁸⁸ FED. R. EVID. 803(18).

⁸⁹ MCCORMICK, *supra* note 20, § 307.

⁹⁰ FED. R. EVID. 803(18).

written, but unpublished, summary of another expert's research is apparently outside the exception.

Other versions of the learned treatise exception in the United States are even narrower. For example, some jurisdictions take the position that to qualify as a learned treatise, the text must be regarded as an "authoritative" work in the field.⁹¹ In still other jurisdictions, it is not enough that the text is a "standard" work,⁹² the specific passage in question must also state a fact "of general notoriety."⁹³ As a practical matter, this limitation restricts the exception to judicially noticeable facts.⁹⁴

In many cases in which the parties have their experts refer to other researchers' work, the hearsay issue is either overlooked or at least not litigated.⁹⁵ When both sides want their expert witnesses to refer to such research, it makes good sense to waive the objection. Otherwise, if one attorney raises the objection to block the opposing expert's references, in all probability the opposing attorney will retaliate by making the same objection when the first attorney's expert attempts to mention the other research supporting his position.⁹⁶ If the hearsay objection is raised and the proponent cannot point to clear statutory authorization, however, it is highly uncertain that the judge will permit the expert to go into any detail about other experts' research.⁹⁷

2. The Admissibility of Evidence Relating to the Expert's Minor Premise

At early common law in the United States, the expert would have encountered even greater hurdles if she attempted to refer to hearsay sources of information about her minor premise. Suppose

⁹¹ W. Brown Morton, Jr., Recent Development, *Medical Treatises To Be Admitted as Direct Evidence in Wisconsin*—*Lewandowski v. Preferred Risk Mutual Ins. Co.*, 66 MICH. L. REV. 183, 183 (1967).

⁹² Note, *Learned Treatises*, 46 IOWA L. REV. 463, 466 (1961).

⁹³ See, e.g., CAL. EVID. CODE § 1341 (Deering 1991).

⁹⁴ 1 BERNARD JEFFERSON, CALIFORNIA EVIDENCE BENCHMARK § 18.7, at 435 (2d ed. 1982); CALIFORNIA EVIDENTIARY FOUNDATIONS, *supra* note 65, at 285; *People v. Conrad*, 107 Cal. Rptr. 421, 430 n.9 (Cal. Ct. App. 1973).

⁹⁵ See, e.g., *Mazur v. Merck & Co.*, 742 F. Supp. 239, 263–66 (E.D. Pa. 1990); *State v. Valley*, 571 A.2d 579, 581 (Vt. 1989).

⁹⁶ See EDWARD J. IMWINKELRIED & THEODORE Y. BLUMOFF, PRETRIAL DISCOVERY: STRATEGY AND TACTICS § 8:39, at 80 (1986 & Supp. 1991) ("The judge's attitude may be that 'What's sauce for the goose is sauce for the gander.'").

⁹⁷ E.g., *Schuchman v. Stackable*, 555 N.E.2d 1012, 1024–26 (Ill. App. Ct. 1990) (expert not allowed to read excerpts from medical articles during trial).

that early in the direct examination of an expert in psychiatry, a psychiatrist testifies about her major premise, the symptomatology for a certain mental illness. Under the learned treatise exception, the psychiatrist might be permitted to quote the discussion of the pertinent diagnostic criteria from a leading psychiatric text. Later in the same direct examination, the expert begins describing the information that serves as her minor premise. Assume, for example, that she spoke with a friend of the subject and that the friend gave the psychiatrist an oral description of the subject's earlier bizarre conduct. If the opposing attorney objected on hearsay grounds, at early common law the judge would have had no choice but to sustain the objection. The friend's oral statement does not fall within any traditional hearsay exception, and the prevailing view was that information could not even serve the limited purpose of furnishing part of the basis for an expert opinion unless the information was independently admissible under the hearsay doctrine.⁹⁸ The friend's oral statement could be admitted neither as substantive evidence of the subject's behavior nor as part of the basis of the expert's opinion about the subject's mental condition.

The drafters of the Federal Rules of Evidence opposed the prevailing common-law view. They decided to "bring the judicial practice into line with the practice of the experts themselves when not in court."⁹⁹ The drafters concluded that as part of an expert's minor premise, an expert should be able to consider technically inadmissible hearsay as long as it is the customary practice of the expert's specialty to do so.¹⁰⁰

This reasoning led the drafters of Federal Rule 703 to provide that "the facts or data" the expert includes in his minor premise "need not be admissible in evidence."¹⁰¹ Because Rule 703 does not purport to fashion another hearsay exception, the opposing party

⁹⁸ MCCORMICK, *supra* note 20, § 15.

⁹⁹ FED. R. EVID. 703 advisory committee's note. The note states:

Thus a physician in his own practice bases his diagnosis on information from numerous sources and of considerable variety, including statements by patients and relatives, reports and opinions from nurses, technicians and other doctors, hospital records, and X-rays. Most of them are admissible in evidence, but only with the expenditure of substantial time in producing and examining various authenticating witnesses. The physician makes life-and-death decisions in reliance upon them. His validation, expertly performed . . . ought to suffice for judicial purposes.

Id.

¹⁰⁰ *Id.*

¹⁰¹ *Id.* 703.

is entitled to a limiting instruction under Rule 105 that the information is inadmissible as substantive evidence of the facts asserted.¹⁰² The expert, however, may employ the information as part of the basis for his opinion so long as the information is "of a type reasonably relied upon by experts" within the witness' discipline.¹⁰³

In a sense, the rules in the United States governing the expert's major and minor premises are symmetrical. With regard to the major premise, roughly two thirds of the jurisdictions adhere to the *Frye* test for the admissibility of scientific testimony.¹⁰⁴ Under *Frye*, the extent of the acceptance of the expert's major premise within the expert's specialty determines whether the expert may use the theory as a basis for her testimony.¹⁰⁵ The expert may rest her testimony on the theory if support for the theory is so extensive that it can be said to be generally accepted. In deciding whether to permit an expert to factor certain information into her minor premise, the judge again looks, under Rule 703, to the specialty's customary practice. Indeed, in some jurisdictions, the specialty's custom is dispositive under Rule 703, as it is under *Frye*. For example, if the judge finds that it is the discipline's routine practice to consider a certain type of information, the judge must allow the witness to rely on that type of information. The judge cannot second-guess the discipline and find the practice unreasonable.¹⁰⁶

This superficial symmetry, however, is deceptive. In terms of the hearsay doctrine, the rules governing the expert's major premise differ radically from those controlling the minor premise. On the one hand, many courts vigorously enforce the hearsay rule when the expert attempts to cite other experts' research and writings as support for the validity of the witness's major premise. For example, when the other experts' works assert the validity of the witness's premise and the proponent offers the references to establish the truth of that very assertion, the references are arguably hearsay. The proponent has a solitary, severely circumscribed hearsay exception to turn to, the learned treatise exception.¹⁰⁷ On the other hand, Rule 703 has largely blunted the application of the hearsay rule to the expert's minor premise. By its terms, the rule announces

¹⁰² *Id.* 105.

¹⁰³ *Id.* 703.

¹⁰⁴ See SCIENTIFIC EVIDENCE, *supra* note 9, § 1-5.

¹⁰⁵ See *supra* notes 67-71 and accompanying text for a discussion of the *Frye* test.

¹⁰⁶ See *In re Japanese Elec. Prods. Antitrust Litig.*, 723 F.2d 238, 275-79 (3d Cir. 1983).

¹⁰⁷ See *supra* notes 81-94 and accompanying text for a discussion of the learned treatise exception.

that the information an expert factors into his minor premise "need not be admissible in evidence."¹⁰⁸ The accompanying advisory committee note makes it clear that the rule intentionally obviates any necessity that the information pass muster under the hearsay doctrine.¹⁰⁹

B. *The Specific Evidentiary Rules in the Rest of the Common-Law World*

The courts in other common-law countries have attempted to resolve the same expert opinion questions with which courts in the United States are now struggling. They, however, have answered the questions in somewhat different fashion. The differences are due, in part at least, to the other common-law systems' greater awareness of the interface between expert opinion evidence and hearsay.¹¹⁰

1. The Admissibility of Evidence Relating to the Expert's Major Premise

Suppose that in another common-law jurisdiction, the judge has already ruled an expert's opinion admissible.¹¹¹ At that point, the identical issue arises that troubles courts in the United States. When the expert explains her major premise to the trier of fact, to what extent may the expert refer to other experts' research over a hearsay objection?

Some common-law jurisdictions have adopted essentially the same position as the United States. For example, Canadian courts recognize a limited learned treatise exception to the hearsay rule.¹¹²

¹⁰⁸ FED. R. EVID. 703.

¹⁰⁹ See *id.* advisory committee's note.

¹¹⁰ See, e.g., JOHN J. ARCHBOLD ET. AL., PLEADING, EVIDENCE & PRACTICE 956 (Stephen Mitchell & P.J. Richardson, eds., 43d ed. 1988); CROSS, *supra* note 26, at 442; McWILLIAMS, *supra* note 27, at 243; Hollies, *supra* note 37, at 291; Pattenden, *supra* note 1, at 89, 95-96.

¹¹¹ No other common-law jurisdiction subscribes to the *Frye* general acceptance test for the admissibility of scientific testimony. Edward J. Imwinkelried, *A Comparative Law Analysis of the Standard for Admitting Scientific Evidence: The United States Stands Alone*, 42 FORENSIC SCI. INT'L 15 (1989). The Canadian courts have expressly rejected the general acceptance test. *Id.* at 21. Other common-law systems demand that the witness be expert in an organized body of knowledge. EDWARDS, *supra* note 41, at 765, 768-70; ALLAN G. WALKER & NORMAN M.L. WALKER, *THE LAW OF EVIDENCE IN SCOTLAND* 432 (1964); A.B. WILKINSON, *THE SCOTISH LAW OF EVIDENCE* 63 (1986). They consequently exclude testimony by astrologers and witchdoctors. KENNY, *supra* note 25, at 201. These courts, however, stop short of imposing an invariable requirement that the specific theory employed by the expert be widely accepted within the discipline. Imwinkelried, *supra*, at 25-31.

¹¹² See Calvin S. Goldman, *The Use of Learned Treatises in Canadian and United States Litigation*, 24 U. TORONTO L.J. 423 (1974).

Similarly, there are early English cases implying that the expert may refer only to "accepted,"¹¹³ "standard,"¹¹⁴ or "well-regarded"¹¹⁵ texts.

In many contemporary common-law jurisdictions, however, the courts have recognized a broader hearsay exception. Initially, to avoid the necessity of explicitly announcing a new hearsay exception, the courts invoked a number of strained—some would say fictitious—theories. Some authorities declared that experts could refer to any texts so long as they "adopt[ed]" them as part of their own testimony.¹¹⁶ Other authorities justified the references to outside sources on the theory that the experts were merely "refreshing recollection."¹¹⁷ These theories, however, were transparent because the courts did not limit experts to consulting summaries of their own personal research.¹¹⁸ It was evident that experts were using the texts "in a way not permitted by the normal rules on refreshing memory."¹¹⁹

In reality, a new, more expansive hearsay exception was emerging.¹²⁰ The landmark precedent is the 1983 decision by the Criminal Division of the English Court of Appeal in *R. v. Abadom*.¹²¹ In the course of committing a robbery, four masked men broke a window.¹²² The prosecution contended that Abadom was one of the robbers.¹²³ To establish Abadom's identity as a robber, the prosecution called two Home Office scientific officers to testify about glass fragments found in Abadom's shoes.¹²⁴ The experts testified that they had measured the refractive index of both the glass found on Abadom's person and the glass from the crime scene.¹²⁵ One

¹¹³ See Jennifer A. James, *A Clear Cut Case*, 47 MOD. L. REV. 103, 107 (1984).

¹¹⁴ See Pattenden, *supra* note 1, at 94.

¹¹⁵ See *id.* (quoting *Eagles v. Orth*, [1976] Q.R. 313, 321 (Queensl. 1975)).

¹¹⁶ HOFFMAN & ZEFFERTT, *supra* note 48, at 101-02; WALKER & WALKER, *supra* note 111, at 434; see CROSS, *supra* note 26, at 431.

¹¹⁷ See ARCHBOLD, *supra* note 110, § 4-298 at 474; McWILLIAMS, *supra* note 27, at 241; SIDNEY L. PHIPSON & DEREK W. ELLIOTT, PHIPSON & ELLIOTT MANUAL OF THE LAW OF EVIDENCE 24 (Derek W. Elliott ed., 11th ed. 1980).

¹¹⁸ ARCHBOLD, *supra* note 110, § 4-298 at 474.

¹¹⁹ PHIPSON & ELLIOTT, *supra* note 117, at 24.

¹²⁰ Pattenden, *supra* note 1, at 93.

¹²¹ [1983] 1 All E.R. 364 (C.A.). For a more detailed discussion of *R. v. Abadom*, see James, *supra* note 113, and Walter Greenwood, Case and Comment, *Expert Evidence—Expert Relying on Material Produced by Other Experts in the Same Field—Whether Excluded by Hearsay Rule*, 1983 CRIM. L. REV. 254 [hereinafter *Expert Evidence*].

¹²² [1983] 1 All E.R. at 365.

¹²³ *Id.*

¹²⁴ *Id.* at 365-66.

¹²⁵ *Id.* at 366.

expert testified that the indices matched.¹²⁶ In addition, he alluded to unpublished Home Office statistics indicating that, over the years, that particular index had occurred in only 4% of the samples analyzed.¹²⁷ The defense challenged the allusion on the ground that it represented inadmissible hearsay.¹²⁸

One commentator has noted that, in *Abadom*, it was patent that "as a matter of common sense, the statistical tables should have been admitted."¹²⁹ As this commentator remarked, "[a] legal system which would . . . rule out such cogent evidence as the Home Office statistic[s] [could not] be defended."¹³⁰ The statistics had been compiled in a reliable manner,¹³¹ and they shed important light on the significance of the glass fragments discovered on the defendant's person. Nevertheless, whether the law permitted their admission was "in doubt."¹³² The result was that the probative value of the statistics in *Abadom* proved that the rules governing the interface between expert opinion and hearsay were in need of revision.¹³³ The Court of Appeal overruled the hearsay objection and upheld the propriety of the reference to the Home Office statistics.¹³⁴

Although commentators have criticized the *Abadom* court's attempts to distinguish earlier, more restrictive opinions,¹³⁵ *Abadom* and kindred decisions have substantially liberalized the common-law rule. It is now settled that in explaining the major premise, experts are not limited to published material.¹³⁶ Moreover, this common-law rule may not be limited necessarily to written material. For example, a South African court permitted a fingerprint expert to cite the general experience of other members of his office to support his position that seven points of identity suffice for a match.¹³⁷ Nor is the new rule confined to criminal cases such as

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ *Id.* at 366-67.

¹²⁹ James, *supra* note 113, at 107.

¹³⁰ *Id.* at 104.

¹³¹ *Id.* at 106.

¹³² *Id.* at 107.

¹³³ *Id.*

¹³⁴ *R. v. Abadom*, [1983] 1 All E.R. 364, 369 (C.A.).

¹³⁵ James, *supra* note 113, at 104-06.

¹³⁶ See *id.* at 106 ("The court added that the fact this material had not been published did not disentitle the expert from relying thereon."); ADRIAN KEANE, *THE MODERN LAW OF EVIDENCE* 370 (2d ed. 1989); *Expert Evidence*, *supra* note 121, at 255 ("It was not necessary that such material should have been published.").

¹³⁷ HOFFMAN & ZEFFERTT, *supra* note 48, at 101 (citing *S. v. Kimimbi*, 1963 (3) S.A. 250 (C)).

Abadom. In civil cases involving the valuation of property, an expert has been allowed to refer to "reports of auctions and other dealings, and information obtained from his professional brethren," as well as written textbooks and journals.¹³⁸

The *Abadom* court strove mightily to reconcile its holding with earlier precedents.¹³⁹ Professor Pattenden, however, is correct in asserting that on its facts *Abadom* signals the advent of a new hearsay exception "peculiar to expert witnesses which enables them to give substantive evidence of technical material of a general nature" to support their major premise.¹⁴⁰ The exception is broad enough to enable an expert to rely on "any relevant"¹⁴¹ research material "he chooses"¹⁴² to persuade the trier of fact that the expert's underlying theory is valid. This exception is far broader than the learned treatise exception codified in Federal Rule of Evidence 803(18).

2. The Admissibility of Evidence Relating to the Expert's Minor Premise

Assume *arguendo* that an expert has concluded his testimony about his general theory or technique. Before stating his ultimate opinion relevant to the merits of the case, the expert proposes to list the case-specific facts in his minor premise. These are the facts to which the expert will apply the theory or technique. At this point, may the expert refer to information about the case-specific facts from otherwise inadmissible hearsay sources? In many common-law jurisdictions, the answer to that question must be tentative because the law is in flux.¹⁴³ Some generalizations, however, are possible.

The Australian and Canadian courts have embraced a position similar to that adopted in the United States.¹⁴⁴ The Canadian court's decision in *Wilband v. The Queen* is illustrative.¹⁴⁵ There, the question presented was whether a psychiatrist could rely on hearsay sources

¹³⁸ Pattenden, *supra* note 1, at 93 (citing *English Exporters (London) Ltd. v. Eldonwall Ltd.* [1973] 1 Ch. 415, 420 (1972)); see also P.B. CARTER, *CASES AND STATUTES ON EVIDENCE* 522 (1981); KEANE, *supra* note 136, at 369 (a "professional valuer" may rely on information "obtained from professional colleagues").

¹³⁹ See James, *supra* note 113, at 104-06.

¹⁴⁰ Pattenden, *supra* note 1, at 90.

¹⁴¹ KEANE, *supra* note 136, at 370.

¹⁴² McWILLIAMS, *supra* note 27, at 256 (quoting *R. v. Anderson*, 16 D.L.R. 203 (Alta. 1914)).

¹⁴³ Hollies, *supra* note 37, at 302-03.

¹⁴⁴ See Pattenden, *supra* note 1, at 87-88.

¹⁴⁵ [1967] S.C.R. 14 (Can. 1966).

of information about the conduct of the person being evaluated.¹⁴⁶ Among other sources, the psychiatrist had examined the person's prison files.¹⁴⁷ The court held that the expert's reliance on such hearsay sources was proper.¹⁴⁸

The court advanced several arguments for its holding. One argument was that the expert's consideration of these "second-hand" sources was "according to recognized normal psychiatric procedures."¹⁴⁹ The argument runs that, in forming opinions for the courtroom, the expert should be permitted and encouraged to follow "recognized professional procedures."¹⁵⁰ That argument is, of course, reminiscent of the claim by the drafters of the Federal Rules of Evidence that "the judicial practice [should be brought] into line with the practice of the experts themselves when not in court."¹⁵¹

Another argument is that when used for such a limited purpose, the information is nonhearsay. The expert refers to the information for the limited purpose of explaining why he formed his opinion.¹⁵² Employed for that purpose, the information supposedly has "no hearsay quality."¹⁵³ The proponent is not offering the information as substantive evidence of the truth of the information.¹⁵⁴ The proponent asserts that the information is offered merely to demonstrate that the expert had a substantial basis for his opinion and acted reasonably in forming the opinion. The proponent is invoking a variation of the "mental input" theory, and claims that the psychiatrist's receipt of the report about the subject's behavior makes the ultimate opinion better founded and more credible.¹⁵⁵ If the information is not being treated as proof of the truth of the assertion, it is not subject to exclusion under the hearsay rule.¹⁵⁶ At

¹⁴⁶ *Id.* at 18.

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* at 21-22.

¹⁴⁹ *Id.* at 19.

¹⁵⁰ McWILLIAMS, *supra* note 27, at 252 (quoting *Phillion v. The Queen*, [1978] 1 S.C.R. 18, 24 (Can. 1977)); see also Hugh Silverman, *Psychiatric Evidence in Criminal Law*, 14 CRIM. L.Q. 145, 165-66 (1971-72) ("if we recognize that he is an expert . . . we must take into account his techniques for gathering information").

¹⁵¹ FED. R. EVID. 704 advisory committee's note.

¹⁵² KEANE, *supra* note 136, at 369-70; Pattenden, *supra* note 1, at 96. The court in *Wilband*, however, noted that "the information gathered from prison files was not considered by the two psychiatrists as having any real significance in the formation of their opinion, which was grounded ultimately on the examinations of the appellant and the evidence given at the hearing of the application." *Wilband*, [1967] S.C.R. at 21.

¹⁵³ Pattenden, *supra* note 1, at 86-87.

¹⁵⁴ *Id.* at 86.

¹⁵⁵ EVIDENCE IN THE NINETIES, *supra* note 6, at 578.

¹⁵⁶ KEANE, *supra* note 136, at 369.

the opponent's request, the judge would give the jury "a careful charge" about the limited use of the information,¹⁵⁷ but the hearsay objection would be overruled.

While *Wilband* is powerful precedent for the limited use of hearsay information as a basis for expert opinion, it would be an overstatement to assert that all types of Canadian experts may now follow the practice codified in Federal Rule 703. More recent Canadian authorities state that when the factual premises of an expert's minor premise are not established by other evidence permitted under the exclusionary rules, "the expert's opinion must be rejected as irrelevant."¹⁵⁸ Further, both Australian and Canadian cases teach that if admissible evidence corroborating the hearsay report is not forthcoming, the expert opinion has "little significance."¹⁵⁹ Some Canadian decisions use the expression, "little if any probative value."¹⁶⁰

More importantly, *Wilband* is at odds with other leading common-law authorities outside the United States.¹⁶¹ Many common-law authorities maintain a conservative attitude toward the bases of expert opinion evidence.¹⁶² These courts perceive a clear distinction between the application of the hearsay rule to the expert's major and minor premises. It is one thing to allow a psychiatrist to rely on hearsay sources for the criteria for diagnosing a particular mental illness. It is quite another, more problematic, matter to permit the psychiatrist to rely on what a person's acquaintances told the expert about the person's state of health.¹⁶³ Although it may have been justifiable in *Abadom* to permit the Home Office expert to refer to the statistics about the incidence of various refractive indices,¹⁶⁴ the court could have held quite consistently that "if [the expert] had not himself determined the index [of the glass found in Abadom's shoes,] it would have been necessary to call someone who had [personally] done so."¹⁶⁵

¹⁵⁷ McWILLIAMS, *supra* note 27, at 252 (quoting *R. v. Abbey*, [1982] 2 S.C.R. 24 (Can.)).

¹⁵⁸ Eilis S. Magner, *Exclusion of Polygraph Evidence: Can It Be Justified?* 30 CRIM. L.Q. 412, 423 (1987-88).

¹⁵⁹ Pattenden, *supra* note 1, at 87, 88 n.23.

¹⁶⁰ Hollies, *supra* note 37, at 295 (citing *Schofield v. MacIntosh*, 29 W.W.R. 572 (B.C. 1959)).

¹⁶¹ See, e.g., Hollies, *supra* note 37, at 303; Silverman, *supra* note 150, at 166-67.

¹⁶² See, e.g., McWILLIAMS, *supra* note 27, at 245-46 (summarizing Canadian cases restricting use of expert opinion evidence).

¹⁶³ PHIPSON & ELLIOTT, *supra* note 117, at 25.

¹⁶⁴ *Expert Evidence*, *supra* note 121, at 254.

¹⁶⁵ *Id.* at 255.

The preponderant view in the common-law world is that the expert may not factor information into her minor premise unless the information is admissible under the hearsay rule.¹⁶⁶ Leading contemporary authorities in England¹⁶⁷ and other common-law systems such as New Zealand,¹⁶⁸ Scotland¹⁶⁹ and South Africa¹⁷⁰ proclaim that each fact in the expert's minor premise must be proven by admissible evidence. This rule is regarded as an "elementary principle"¹⁷¹ in most common-law systems.¹⁷²

The trial procedures reflect the rule. The hypothetical question is not only a permissible method of eliciting expert testimony,¹⁷³ in many circles, it is still viewed as the preferred method of presenting expert opinion.¹⁷⁴ At some stage of the trial, the expert's proponent must present admissible evidence *aliunde*¹⁷⁵ to prove the existence of the facts in the expert's minor premise.¹⁷⁶ If the proponent neglects to introduce such evidence, the expert's opinion is not entitled to any weight¹⁷⁷ and "must be discarded."¹⁷⁸ The practice does not appear to be universal;¹⁷⁹ but in some common-law courts, the judge instructs the jury that if they determine as a matter of fact that one of the premises in the expert's minor premise is untrue, they are to reject the opinion as well.¹⁸⁰

Of the common-law jurisdictions, the United States has seemingly adopted the most conservative position on the question of the

¹⁶⁶ KEANE, *supra* note 136, at 369.

¹⁶⁷ *Id.*; G.D. NOKES, *supra* note 32, at 180; PHIPSON, *supra* note 27, at 804; SIDNEY L. PHIPSON & DEREK W. ELLIOTT, PHIPSON'S MANUAL OF THE LAW OF EVIDENCE 86 (Derck W. Elliott ed., 10th ed. 1972); HOLLIES, *supra* note 37, at 292 (citing ERNEST COCKLE, COCKLE'S CASES AND STATUTES IN EVIDENCE 95 (10th ed. 1963)); KENNY, *supra* note 25, at 199 ("the opinion of scientific men upon proven facts"); L. Norman Williams, Case and Comment, 1975 CRIM. L. REV. 98, 99.

¹⁶⁸ CROSS, *supra* note 26, at 430.

¹⁶⁹ WILKINSON, *supra* note 111, at 65 ("that basis must be established *aliunde*").

¹⁷⁰ HOFFMAN & ZEFFERTT, *supra* note 48, at 101 ("on the basis of facts proved by others").

¹⁷¹ CARTER, *supra* note 138, at 510.

¹⁷² Pattenden, *supra* note 1, at 88.

¹⁷³ See, e.g., HOFFMAN & ZEFFERTT, *supra* note 48, at 101-02; KEANE, *supra* note 136, at 369; PHIPSON & ELLIOTT, *supra* note 117, at 25.

¹⁷⁴ See CROSS, *supra* note 26, at 442 (problems "can be avoided . . . by the use of hypothetical questions"); PHIPSON'S MANUAL, *supra* note 167, at 87.

¹⁷⁵ WILKINSON, *supra* note 111, at 65.

¹⁷⁶ Pattenden, *supra* note 1, at 86-87.

¹⁷⁷ See McWILLIAMS, *supra* note 27, at 252 (quoting R. v. Abbey, [1982] 2 S.C.R. 24 (Can.)); PETER K. McWILLIAMS, CANADIAN CRIMINAL EVIDENCE 75 (Supp. 1986) [hereinafter CANADIAN CRIMINAL EVIDENCE].

¹⁷⁸ HOFFMAN & ZEFFERTT, *supra* note 48, at 102; see also Pattenden, *supra* note 1, at 96.

¹⁷⁹ Pattenden, *supra* note 1, at 87.

¹⁸⁰ CANADIAN CRIMINAL EVIDENCE, *supra* note 177, at 75 (Supp. 1986).

application of the hearsay rule to the expert's major premise. While other common-law systems recognize a broad exception enabling the expert to inform the trier of the research data supporting the expert's theory, most United States jurisdictions adhere to a very limited learned treatise exception. Among the common-law jurisdictions, however, the United States has taken the most liberal position on the issue of the interface between the hearsay rule and the expert's minor premise. Many common-law systems insist that the expert's minor premise be based on admissible evidence. Quite to the contrary, Federal Rule 703 has eviscerated the hearsay rule's application to this component of the expert's reasoning process. Under Rule 703, even if the information in question would otherwise be deemed blatantly inadmissible hearsay, the expert may factor the information into her minor premise if it is her specialty's custom to consider that type of information.

III. A CRITICAL EVALUATION OF THE DIFFERENCES BETWEEN THE SPECIFIC EVIDENTIARY RULES IN THE UNITED STATES AND THOSE IN THE REST OF THE COMMON-LAW WORLD

Section I described the common rationale, shared by the United States and the balance of the common-law world, underlying the rules of opinion evidence. Section II pointed out, however, there are pronounced differences between the specific evidentiary rules implementing the rationale in the United States and in many other common-law systems. This section evaluates those differences from a comparativist perspective.

A. *The Differences in the Rules Relating to the Expert's Major Premise*

Necessity justifies admitting expert opinion evidence based on hearsay.¹⁸¹ The assumption is that by virtue of her special knowledge and skill, an expert is better able to draw an inference than a lay judge or juror. The expert contributes to the fact finding process by assisting the trier of fact to determine more intelligently whether to draw a contested inference.

Empirical studies concerning the reliability of expert and lay testimony suggest not only that the expert testimony should be admissible, but also, more importantly, that the courts should be relatively receptive to expert opinion evidence. There is undeniably

¹⁸¹ Pattenden, *supra* note 1, at 93.

a margin of error in expert testimony, including scientific evidence.¹⁸² Experts are hardly infallible.¹⁸³ Nevertheless, the psychological studies have documented an even greater margin of error in lay eyewitness testimony.¹⁸⁴ The judgment to admit expert opinion evidence must be comparative; to the extent we restrict the admissibility of expert testimony, we force the courts to rely on other types of evidence that may be even less reliable.¹⁸⁵ In short, the evidentiary rules should permit the admission of expert testimony with some liberality.

If expert testimony, particularly scientific evidence, is to be admissible, the courts must permit the expert witness to rely, at least implicitly, on hearsay reports of other experts' research. Given the proliferation of scientific knowledge in this century, "no scienti[st] . . . can possibly have firsthand knowledge of all the data comprising his field."¹⁸⁶ In his education and work life, the expert is exposed to innumerable oral and written reports involving a vast mass of accumulated research.¹⁸⁷ Even if he is an active researcher, the data the expert has personally compiled represents only a minute fraction of the corpus of knowledge the expert uses in his professional work.¹⁸⁸ Inevitably, the witness is bound to rely on other experts' validation of theories that the expert witness uses to develop and support his major premise.¹⁸⁹ It would be absurd to require the

¹⁸² Numerous articles have collected the proficiency studies documenting the existence of a disturbing margin of error in expert testimony. See, e.g., Paul C. Giannelli, *Criminal Discovery, Scientific Evidence, and DNA*, 44 VAND. L. REV. 791, 795-97 (1991); Paul C. Giannelli, *The Admissibility of Laboratory Reports in Criminal Trials: The Reliability of Scientific Proof*, 49 OHIO ST. L.J. 671, 688-92 (1988); Edward J. Imwinkelried, *The Debate in the DNA Cases Over the Foundation for the Admission of Scientific Evidence: The Importance of Human Error as a Cause of Forensic Misanalysis*, 69 WASH. U. L.Q. 19, 25-27 (1991); Edward J. Imwinkelried, *The Standard for Admitting Scientific Evidence: A Critique From the Perspective of Juror Psychology*, 28 VILL. L. REV. 554, 560-62 (1982-83) [hereinafter Imwinkelried, *The Standard for Admitting Scientific Evidence*]; Edward J. Imwinkelried, *A New Era in the Evolution of Scientific Evidence—A Primer on Evaluating the Weight of Scientific Evidence*, 23 WM. & MARY L. REV. 261, 267-69 (1981).

¹⁸³ McWILLIAMS, *supra* note 27, at 245.

¹⁸⁴ Imwinkelried, *The Standard for Admitting Scientific Evidence*, *supra* note 182, at 565-66.

¹⁸⁵ *Id.* at 564.

¹⁸⁶ Ronald M. Dick, *Hearsay Evidence in Expert Opinions*, 8 J. POLICE SCI. & ADMIN. 378, 382 (1980).

¹⁸⁷ HOFFMAN & ZEFFERTT, *supra* note 48, at 101; L.R.C. Haward, *A Psychologist's Contribution to Legal Procedure*, 27 MOD. L. REV. 656, 662 (1964) ("the psychologist [calls upon] . . . the accumulated wealth of factual knowledge produced by psychological experimentation over the past century"); *Expert Evidence*, *supra* note 121, at 255.

¹⁸⁸ Pattenden, *supra* note 1, at 93-94.

¹⁸⁹ McWILLIAMS, *supra* note 27, at 241; James, *supra* note 113, at 105; *Expert Evidence*, *supra* note 121, at 255.

witness to repeat all the experiments needed to verify every proposition in his major premise.¹⁹⁰

The crucial policy question is whether the courts should allow the witness to discuss explicitly the other experts' research. The status quo in American hearsay law makes it difficult for the expert to do so. Is the status quo desirable? As many common-law commentators have noted, when a judge decides to admit expert testimony, the real task is ensuring that the trier of fact properly evaluates the weight of the testimony.¹⁹¹ As Judge Hand observed in his classic article, that task is challenging precisely because the trier of fact lacks the expert's knowledge and skill.¹⁹²

The strict application of the hearsay rule to the expert's major premise compounds the trier of fact's difficulty in properly evaluating expert testimony. By greatly restricting the expert's ability to elaborate on the research underlying her major premise, laws in the United States force the trier of fact to decide whether to accept the expert's ultimate opinion as an *ipse dixit*. It is hardly surprising that studies of American jury behavior indicate that, in deciding whether to accept an expert's testimony, jurors frequently rely heavily on the expert's demeanor and presentational style.¹⁹³ Jurors, denied the underlying research data, thus focus on factors that have no relation to the scientific merit of the witness's major premise. Unfortunately, the witness's demeanor may not be a good indicator of the witness's credibility and acumen.¹⁹⁴

Other common-law jurisdictions have relaxed the application of the hearsay rule to an expert's major premise because they believe that it is critical to furnish the trier of fact with "the necessary scientific criteria" to assess the expert's theory.¹⁹⁵ The scientific va-

¹⁹⁰ Imwinkelried, *The 'Bases' of Expert Testimony*, *supra* note 12, at 9. The author writes: Would we require a modern accident reconstruction expert to replicate Newton's seventeenth century experiments to derive the laws of motion? Suppose that a physicist is testifying about the safety of a nuclear power plant. If the physicist contemplates relying on the works of Fermi or Oppenheimer, would we require that the physicist duplicate their research? Imposing that requirement would effectively bar all scientific testimony. To put the matter bluntly, permitting scientific witnesses to consider the theories and studies of other researchers is an absolute necessity.

Id.

¹⁹¹ See CARTER, *supra* note 138, at 502-03; HOFFMAN & ZEFFERTT, *supra* note 48, at 88-89; WILKINSON, *supra* note 111, at 67.

¹⁹² See Hand, *supra* note 50, at 42-49.

¹⁹³ Kenneth K. Sereno, *Source Credibility*, 28 J. FORENSIC SCI. 532, 534-35 (1983).

¹⁹⁴ See Olin G. Wellborn, III, *Demeanor*, 76 CORNELL L. REV. 1075, 1078-91 (1991).

¹⁹⁵ CROSS, *supra* note 26, at 431; see Hammelmann, *supra* note 27, at 33. See generally Basten, *supra* note 28.

lidity of a theory turns on the extent and caliber of its experimental verification.¹⁹⁶ It is the trier's responsibility to evaluate the quality of the expert's reasoning process.¹⁹⁷ The trier of fact can do so in a meaningful fashion only with the benefit of the pertinent research data.¹⁹⁸ The trier needs to know the size and composition of the research database, the conditions under which the experiments were conducted, and the validity rate attained in the experiments. The practice in many civil-law countries is in accord with the practice in these common-law jurisdictions. In many civil-law jurisdictions, the court's expert provides the trier of fact with a report, detailing the related research, experiments and investigations.¹⁹⁹

As previously stated, the United States has taken perhaps the most conservative position of the common-law jurisdictions on the application of the hearsay doctrine to the expert's major premise. The other common-law jurisdictions, however, appear to have the better approach. A comparative analysis strongly suggests that the American jurisdictions ought to reappraise and significantly expand their narrow learned treatise exception.²⁰⁰

B. *The Differences in the Rules Relating to the Expert's Minor Premise*

The preceding subsection pointed out that the basic justification for the admission of expert testimony is a necessity rationale. That is, the expert has a special ability to draw an inference beyond a layperson's competence, or at least to draw the inference more reliably. The expert possesses that ability because she has knowledge or skill exceeding that of the typical layperson. As section I emphasized, the expert's special ability relates to the major premise in the expert's reasoning. The expert's knowledge and skill enable the

¹⁹⁶ ERNEST SNYDER, *HISTORY OF THE PHYSICAL SCIENCES* 21 (1969); Haward, *supra* note 187, at 667; Andre A. Moenssens, *Admissibility of Scientific Evidence—An Alternative to the Frye Rule*, 25 WM. & MARY L. REV. 545, 556 (1984); Sheri L. Gronhovd, Note, *Social Science Statistics in the Courtroom: The Debate Resurfaces in McCleskey v. Kemp*, 62 NOTRE DAME L. REV. 688, 690–91 (1987).

¹⁹⁷ See Sir Roger Ormrod, *Scientific Evidence in Court*, 1968 CRIM. L. REV. 240, 244–46.

¹⁹⁸ *Schuchman v. Stackable*, 555 N.E.2d 1012, 1031–32 (Ill. App. Ct. 1990) (Chapman, J., dissenting).

¹⁹⁹ Hammelmann, *supra* note 27, at 37.

²⁰⁰ Cf. Pattenden, *supra* note 1, at 93 (accepting a broad exception to hearsay because an expert opinion will be built on non-first hand evidence, including both written and oral work by others in that profession); James, *supra* note 113, at 107 (hearsay exception for unpublished search report prepared by third party and used by expert); *Expert Evidence*, *supra* note 121, at 255 (hearsay exception for unpublished material on which expert bases opinion).

expert to supply the theory or principle needed to properly evaluate the case-specific data. The preceding subsection argued that the necessity rationale justifies relaxing the application of the hearsay rule to the research data supporting the expert's major premise.

The necessity rationale, however, is not applicable to the information constituting the expert's minor premise. Expert testimony can be presented without rendering the hearsay rule inapplicable to the expert's minor premise. Without the benefit of Rule 703, which exempts an expert's minor premise from hearsay scrutiny, United States courts admitted expert testimony for decades through the mechanism of the hypothetical question.²⁰¹ Several United States jurisdictions have refused to adopt Rule 703, and continue to insist that the expert's proponent prove each element of the expert's minor premise with admissible evidence.²⁰² As section II pointed out, many other common-law countries still demand admissible evidence of the expert's minor premise. The experience of those jurisdictions demonstrates that there is no true necessity for a provision such as Rule 703. A common-law system can successfully administer a set of expert opinion rules without abandoning the hearsay rule.

Of course, a provision such as Rule 703 arguably still might be desirable, even if not justified by necessity. That argument, however, has serious weaknesses. If made at the turn of the century, when Judge Hand wrote his article about expert opinion evidence, the argument would have had substantial merit. At that point in time,

²⁰¹ MCCORMICK, *supra* note 20, §§ 14-15 at 39-40.

²⁰² *Id.* § 15 at 38-39. Minnesota's version of Rule 703 has been amended by the addition of the following provision:

(b) Underlying data must be independently admissible in order to be received upon direct examination; provided that when good cause is shown in civil cases and the underlying data is particularly trustworthy, the court may admit the data under this rule for the limited purpose of showing the basis for the expert's opinion.

MINN. STAT. ANN. § 50, Evidence 703(b) (West 1980 & Supp. 1991). The Minnesota amendment became effective January 1, 1990. *Id.* See EVIDENCE IN THE NINETIES, *supra* note 6, at 538.

Similarly the rules in Michigan and Ohio reject Rule 703's permissive approach to the use of potentially inadmissible evidence in an expert's minor premise:

In Michigan, the first sentence of Rule 703 is identical to that in the Federal Rule, but the second sentence was omitted and the following substituted: "The court may require that underlying facts or data essential to an opinion or inference be in evidence." Ohio adopted a one sentence rule requiring that the facts or data on which an expert bases his or her opinion either have been perceived by the expert or admitted in evidence at the hearing.

JOSEPH & SALTZBURG, *supra* note 22, § 52.2 at 1.

a proponent of Rule 703 might have noted that a good deal of trustworthy information was technically inadmissible under the hearsay rule. Given that the hearsay doctrine was strictly applied at that time, the Rule 703 advocate reasonably could have argued that such information was not necessarily untrustworthy simply because it could not run the hearsay gauntlet.

During this century, however, United States jurisdictions have substantially liberalized the hearsay doctrine. Although the United States has not gone as far as some other common-law systems,²⁰³ the barriers to the admission of hearsay evidence under the Federal Rules of Evidence are much more lax than their United States common-law antecedents. In a single legislative stroke, the Federal Rules of Evidence relaxed the foundational requirements for some traditional exceptions,²⁰⁴ recognized new exceptions,²⁰⁵ and created open-ended residual exceptions.²⁰⁶ Today, most hearsay is admitted.²⁰⁷ American evidence scholars are now discussing seriously the question of whether there has been a *de facto* abolition of the hearsay rule.²⁰⁸ If hearsay information cannot pass muster under these new, relaxed standards, there is good reason to question its reliability. At the turn of the century, a Rule 703 proponent plausibly could have contended that the receipt of many "technically inadmissible" items of hearsay would enhance the reliability of the trier's factual findings. The reform of the hearsay rule in the United States, however, has deprived that contention of much of its force.

Today, most other common-law systems refuse to treat an expert's willingness to rely on a report relating the facts of the instant case as a sufficient guarantee of the trustworthiness of the report.²⁰⁹ As section I noted, an expert is not viewed as an official fact finder²¹⁰

²⁰³ See, e.g., CROSS & WILKINS, *supra* note 28, at 154-55; Di Birch, *Documentary Evidence*, 1989 CRIM. L. REV. 15; R.A. Clark, *The Changing Face of the Rule Against Hearsay in English Law*, 21 AKRON L. REV. 67 (1987).

²⁰⁴ E.g., FED. R. EVID. 804(b)(2) advisory committee's note (the dying declaration exception).

²⁰⁵ E.g., *id.* 803(1) advisory committee's note (the present sense impression exception).

²⁰⁶ E.g., *id.* 803(24), 804(b)(5).

²⁰⁷ Ronald Allen, *The Evolution of the Hearsay Rule to a Rule of Admission*, 76 MINN. L. REV. (forthcoming 1992) ("most hearsay comes in"); Christopher Mueller, *Post-Modern Hearsay Reform: The Importance of Complexity*, 76 MINN. L. REV. (forthcoming 1992) (citing the Younger article, *infra*, the author asserts that "most hearsay gets in"); Irving Younger, *Reflections on the Rule Against Hearsay*, 32 S.C. L. REV. 281, 293 (1980) ("Hearsay is usually admitted.").

²⁰⁸ Eleanor Swift, *Has the Hearsay Rule Been Abolished De Facto by Judicial Decision?*, 76 MINN. L. REV. (forthcoming 1992).

²⁰⁹ See *supra* notes 158-76 and accompanying text.

²¹⁰ Hollies, *supra* note 37, at 290.

with a superior ability to determine credibility. For example, it is true that a physician is more capable than a layperson of determining whether a rash is a symptom for a particular disease. Assume, however, that an acquaintance of the patient tells the physician that a week earlier he saw a rash on the patient's arm. Is the physician, *qua* expert, better able than a juror or judge to determine the truthfulness of the acquaintance's report? "Does the physician's medical degree make the physician a better judge of character than a judge or jury? A physician's medical school coursework does not include any specialized training in determining credibility."²¹¹ There are no residencies or internships in assessing truthfulness. If the physician were to make that determination, the physician would be stepping into the shoes of the factfinder.²¹² Making such a determination is not the essence of the physician's expertise. Precisely because the expert is exceeding his expertise, the law should not indulge in any presumption of the reliability of the expert's determination.

Not only is the benefit of Rule 703 dubious, but there are also significant costs attached—costs that are higher in the United States than they are in any other common-law system. When a judge invokes Rule 703, permitting an expert to mention otherwise inadmissible hearsay statements in the testimony about her minor premise, there are two distinct possibilities of the misuse of evidence. One possibility is that the jury will improperly treat the case-specific information as substantive evidence of the facts asserted. If a judge admits such evidence under Rule 703 in a jury trial, the judge must give the jurors a limiting instruction, specifying the permissible and impermissible uses of the evidence.²¹³ It is doubtful

²¹¹ Imwinkelried, *The 'Bases' of Expert Testimony*, *supra* note 12, at 11. The author concedes that "in some exceptional cases, the expert can determine the facts constituting the minor premise more reliably than a lay trier." *Id.* Nevertheless, the author argues that even in those cases, the expert's superior ability is largely a product of her mastery of the theories and principles that function as major premises. *Id.* Suppose, by way of example, that the patient claims to have experienced symptoms A, B, C and E. The physician realizes that the literature indicates that "the presence of symptom E is an exclusionary diagnostic criterion for the other symptoms which the patient claims." *Id.* In this fact situation, the expert could probably evaluate the patient's credibility more effectively than a lay juror could. Nevertheless, the key is the expert's knowledge of the general diagnostic criteria; even in this case, it would be a mistake to leap to the conclusion that the expert is an inherently superior analyst of credibility questions.

²¹² *Zenith Radio Corp. v. Matsushita Elec. Indus. Co.*, 505 F. Supp. 1313, 1368 (E.D. Pa. 1980), *rev'd*, 723 F.2d 238 (3d Cir. 1983), *rev'd on other grounds*, 475 U.S. 574 (1986).

²¹³ FED. R. EVID. 105.

whether such a limiting instruction is effective.²¹⁴ Distinguished evidence scholars acknowledge that it can be difficult to distinguish a hearsay from a nonhearsay use of evidence.²¹⁵ Even after several hours of class discussion devoted exclusively to the definition of hearsay, law students find it difficult to make that distinction. Because lay jurors have not received any formal instruction on the hearsay definition, there is reason to doubt that they can routinely perform the mental gymnastics of using Rule 703 information only in their consideration of the adequacy of the basis of the expert's opinion.

More fundamentally, there is a grave risk that the jury will misuse the expert's ultimate opinion. When the expert testifies syllogistically, her testimony is conditional. For example, she may tell the jury that if symptoms A, B and C, are present in the subject's case history, the subject is likely laboring under mental illness D. Suppose that the expert's proponent presents no admissible evidence of symptom C but that, under Rule 703, the judge permits the expert to refer to inadmissible hearsay about symptom C. The judge gives the jury the customary limiting instruction that they may not treat the information as substantive proof of C. Following the spirit of Rule 703 rather than the practice abroad, however, the judge will probably not instruct the jury that they must ignore the expert's opinion unless there is admissible evidence of C. The expert has said that her opinion obtains only if symptoms A, B and C are present; but there is no competent evidence of C and the judge seemingly still invites the jury to treat the opinion as substantive evidence of mental illness D. A Canadian commentator was guilty

²¹⁴ See generally Daniel D. Blinka, *Delusion or Despair: The Concept of Limited Admissibility in the Law of Evidence*, 13 AM. J. TRIAL ADVOC. 781 (1989). Numerous psychological studies question the efficacy of limiting instructions. James E. Beaver & Steven L. Marques, *A Proposal to Modify the Rule on Criminal Conviction Impeachment*, 58 TEMP. L.Q. 585, 602 (1985); Roselle L. Wissler & Michael J. Saks, *On the Inefficacy of Limiting Instructions: When Jurors Use Prior Conviction Evidence to Decide on Guilt*, 9 LAW & HUM. BEHAV. 37 (1985); Ed Gainor, Note, *Character Evidence by Any Other Name . . . : A Proposal to Limit Impeachment by Prior Conviction Under Rule 609*, 58 GEO. WASH. L. REV. 762, 764, 791 (1990); Lisa Eichhorn, Note, *Social Science Findings and the Jury's Ability to Disregard Evidence Under the Federal Rules of Evidence*, 52 LAW & CONTEMP. PROBS. 341, 347-49 (1989); David S. Prince, Note, *Enhancing Penalties by Admitting "Bad Character" Evidence During the Guilt Phase of Criminal Trials—State v. Bishop*, 1989 UTAH L. REV. 1013, 1017-19 (summarizing the studies). But see Evelyn Goldstein Schaefer & Kristine L. Hansen, *Similar Fact Evidence and Limited Use Instructions: An Empirical Investigation*, 14 CRIM. L.J. 157, 173-75 (1990).

²¹⁵ E.g., RONALD J. ALLEN & RICHARD B. KUHN, AN ANALYTICAL APPROACH TO EVIDENCE 304-08 (1989); CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, EVIDENCE UNDER THE RULES 137 (1988).

of only slight exaggeration when he charged that this practice puts the jury in a "quite impossible" position.²¹⁶

These problems are probably of acute concern only in jury proceedings.²¹⁷ A judge would be intimately familiar with the concept of a nonhearsay use of evidence, and the judge is unlikely to attach much weight to an opinion conditioned on the existence of a certain factor when there is no admissible evidence of the factor.²¹⁸ Although the jury trial is on the wane in the United States,²¹⁹ we still conduct more jury trials than any other country, including other common-law systems.²²⁰ Nearly all the civil jury trials in the world are conducted in the United States.²²¹ Even in England, the birthplace of the common-law jury, the civil jury has virtually disappeared.²²² It would certainly be practical to implement Rule 703 in a common-law system that had largely eliminated the institution of the jury trial. In a different jurisdiction employing bench proceedings, the risks of misuse of evidence would be minimal and Rule 703 might work well. The anomaly, however, is that with its continuing commitment to jury trial, the United States is the common-law jurisdiction where Rule 703, by creating the greatest risks, exacts the highest cost.

IV. CONCLUSION

This article does not purport to explicate a definitive analysis of the interface between hearsay and expert opinion law in the United States. This article hopefully has shown, however, that the United States treats that interface very differently than many other common-law systems. The existence of such material differences should give us pause.

²¹⁶ Hollies, *supra* note 37, at 303.

²¹⁷ Pattenden, *supra* note 1, at 88-89.

²¹⁸ *Id.*

²¹⁹ See Kenneth C. Davis, *Hearsay in Nonjury Cases*, 83 HARV. L. REV. 1362, 1363-64 (1970); Kenneth C. Davis, *An Approach to Rules of Evidence for Nonjury Cases*, 50 A.B.A. J. 723, 723, 726 (1964); F.R. Lacy, "Civilizing" Nonjury Trials, 19 VAND. L. REV. 73, 73 (1965); John H. Langbein, *The German Advantage in Civil Procedure*, 52 U. CHI. L. REV. 823, 864 n.147 (1985).

²²⁰ Gerhard Casper & Hans Zeisel, *Lay Judges in the German Criminal Courts*, 1 J. LEGAL STUD. 135, 135-36 (1972), reprinted in JOHN H. MERRYMAN & DAVID S. CLARK, *COMPARATIVE LAW: WESTERN EUROPEAN AND LATIN AMERICAN LEGAL SYSTEMS* 720-21 (1978).

²²¹ *Id.*

²²² Benjamin Kaplan, *An American Lawyer in the Queen's Courts: Impressions of English Civil Procedure*, 69 MICH. L. REV. 821, 830 (1971).

A comparative analysis suggests that with respect to experts' major premises, evidence law in the United States has not gone far enough in pursuing the logic of the basic rationale for admitting expert testimony. If scientific testimony is to be admitted, courts must allow an expert to rely at least implicitly on the research of other experts. Further, if the trier of fact is to intelligently evaluate the expert's major premise, evidence law must allow the expert to elaborate on the research data supporting the premise. A strict application of the hearsay rule to this research information deprives the trier of fact of information essential to a meaningful appraisal of the validity of the expert's major premise. In *Abadom*, the English court wisely realized that the hearsay rule should not be extended to preclude an expert from acquainting the trier of fact with the research underlying her expertise. In so doing, the court paved the way for the recognition of a new, broader hearsay exception peculiar to expert testimony. The United States should follow suit.

A comparative analysis also indicates, however, that United States jurisdictions have gone too far in relaxing the application of the hearsay rule to information comprising an expert's minor premise. These jurisdictions have misconceived the rationale for admitting expert testimony. The rationale does not posit that, as a general proposition, an expert is a superior analyst of facts or credibility. As the experience of other common-law jurisdictions demonstrates, there is no need to abandon the rule that evidence of the facts contained in the expert's minor premise must be admissible. Canada, the jurisdiction that has adopted the position closest to that of the United States, is considering reinstating the traditional, common-law view. Minnesota, the United States jurisdiction that most recently revised its version of Rule 703, has also moved back toward the original common-law practice.

The interface between expert opinion and hearsay is indeed "a minefield" for the courts in the common-law world. While courts in the United States have taken one path through the minefield, most of the other common-law jurisdictions have chosen a different route. This article suggests that the route chosen by the majority of common-law courts is more consistent with the fundamental rationale for admitting expert opinion. It is time for courts in the United States to rethink their position, for our stance on these issues is at once too conservative and too liberal.