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EXPERT TESTIMONY

MASON LADD*

PRELIMINARY CONSIDERATIONS

The opinion rule of exclusion and the use of expert testimony, like much of the law of evidence, developed out of the adversary system of trial. Not until the Eighteenth Century was the opinion rule established, and although the courts had used witnesses with special knowledge to assist them in obtaining needed information, expert witnesses were not used in the modern sense.[1] There were also inquisitorial hearings in which the inquisitors were all persons with specialized experience, but this was not similar to the use of experts today as the inquisitors determined the issue upon the basis of their own information. This was a special jury or a jury of experts to decide upon matters within their own knowledge.[2] Indeed, much might be gained from the inquisitorial practice by having the experts exchange the information which they had with each other and then determine the conclusions to be drawn. With the rise of the adversary system in which witnesses were looked upon as being called by the parties and expected to represent their position in the case, it was not surprising that the use of scientific proof developed into a testimonal battle of experts.

A consideration of expert opinion requires a preliminary examination of the opinion rule of exclusion. Obviously this rule had no place in the inquisitorial system of trial which commenced after the Norman Conquest and carried through into the Eighteenth Century. In the earliest of these trials witnesses were not used at all. The inquisitors, recognitors or jurors came from the neighborhood where the events in issue arose and declared their verdict on their oaths and their own knowledge. Even as late as *Bushell's Case*[3] in 1670 the jurors were permitted to decide upon their own knowledge contrary to the testimony of independent witnesses. Coincident with the transition and ultimate change from the inquisitorial to the adversary system

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1. 7 WIGMORE, EVIDENCE § 1917 (3d ed. 1940); Hand, *Historical and Practical Considerations Regarding Expert Testimony,* 15 HARV. L. REV. 40 (1901); McCormick, *Some Observations upon the Opinion Rule and Expert Testimony,* 23 TEXAS L. REV. 109 (1945); Rosenthal, *The Development of the Use of Expert Testimony,* 2 LAW & CONTEMP. PROB. 403, 406-11 (1935).

2. 9 HOLDSWORTH, HISTORY OF ENGLISH LAW 211-14 (1926). Many instances of juries consisting of tradesmen or craftsmen to decide questions pertaining to the trade or craft are found in the 14th century. Hand, *supra* note 1, at 41-42. Rosenthal, *supra* note 1, at 407-11, collects numerous early cases in which a jury composed of experts decided the issues submitted to them.

3. 6 How. St. Tr. 999 (1670), s.c. 1 Freem. 2, 89 Eng. Rep. 2, Vaugh. 135, 124 Eng. Rep. 1006 (K.B. 1670).

of trial the opinion rule emerged. Under the new system of the independent jury, knowledge about the controversy disqualified prospective jurors. The testimony of witnesses and real evidence became the sole source of factual data upon which a verdict could be rendered. It was natural that witnesses were required to have personal knowledge of the matters of which they spoke, since the jury no longer had any knowledge. As stated by Lord Coke in 1622, "It is not satisfactory for a witness to say, that he thinks or persuadeth himself."[4] From this and similar expressions, the opinion rule later developed, but it is questionable whether the earlier declarations meant more than that a witness must have personally perceived what he is to speak about.[5] It is doubtful that the object of the rule was to attempt to control the language through which witnesses expressed facts. It could more reasonably be regarded as a requirement that the witness have personal knowledge thus prohibiting him from merely repeating the statements of others who had perceived or expressing his opinion when it was based on conjecture of the mind rather than personal observation. In this sense the opinion rule and the hearsay rule arose from the same source. Both are based upon the conception of the function of a witness in an adversary proceeding, namely, to state what he knows and not what he thinks or has heard others say.[6] Thus, the earlier law upon this subject involved fundamental considerations but out of it arose the opinion rule of exclusion which became directed as much to the form of expression of a witness in relating what he had perceived as to excluding the testimony of a witness who attempted to testify without having perceived the matter which he attempted to report. A different expression of the same idea became common, that it is the province of the jury to exercise opinions and reach conclusions in determining its verdict and the function of a witness is to the state facts only.[7]

The opinion rule would be reasonable enough if there were always a sharp line between a statement of fact and an expression of opinion. The rule has accomplished some good in requiring a witness to communicate his perceptions in language other than inferences where the subject matter is plainly susceptible to factual statement. Indeed, the examiner of a witness may gain much more from his testimony if the questions require and the witness narrates the facts rather than his conclusions from them. If a witness answers

4. Adams v. Canon, 1 Dyer 53b, 73 Eng. Rep. 117 n.15 (K.B. 1622), quoted in McCormick, *supra* note 1, at 110.

5. McCormick, *supra* note 1, at 110-13; KING AND PILLINGER, OPINION EVIDENCE IN ILLINOIS 7-8 (1942). Lord Mansfield in two early cases condemns a statement of belief or speculation of a witness as not being evidence. Carter v. Boehm, 3 Burr. 1905, 97 Eng. Rep. 1162 (K.B. 1776); Folkes v. Chadd, 3 Doug. 157, 99 Eng. Rep. 589 (K.B. 1782).

6. THAYER, PRELIMINARY TREATISE ON EVIDENCE 519-20, 524-25 (1898).

7. South Atlantice S.S. Co. of Delaware v. Munkacsy, 37 Del. 580, 187 Atl. 600 (1936), *cert denied*, 299 U.S. 607 (1936); Morton's Adm'r v. Kentucky-Tennessee Light & Power Co., 282 Ky. 174, 138 S.W.2d 345 (1940).

in terms of opinion rather than facts or if the question calls for such an answer, a wise opponent may choose not to urge the opinion objection because if sustained, a new question would be asked which would cause the witness to speak factually with much more telling effect than the expression of an opinion. Except when the opinion objection is used because of want of perception of the witness or faulty perception which has caused him to speak in terms of inference, it is doubtful if much is gained from use of the rule. If inferences stated by a witness are not warranted by the facts, cross-examination is an effective weapon to expose their weakness. It would thus appear that the dangers of admitting testimony in terms of opinion have been greatly magnified. Nevertheless, perhaps no objection is more commonly used than that "the question calls for the opinion or conclusion of the witness." Furthermore, few rules have caused the courts more trouble than their legalistic struggle to determine whether the testimony in question is fact or opinion, with the penalty of reversal in event of an erroneous ruling.[8] Unfortunately many courts have overlooked the orthodox test as to whether the witness was testifying from personal perception or mere conjecture. The Model Code of Evidence of the American Law Institute solves the problem by making perception the test and permitting the witness to testify in terms including inferences, unless the judge finds that the witness can communicate as well in other terms and that the use of inferences will be likely to mislead the trier of fact.[9] This forward-looking rule permits the witness to testify in court in the same kind of language which he would use if conversing on the street, in his business or at home. It eliminates much of the quibbling as to form and lets the witness tell his observations in the manner in which he can best make himself understood.

Even under the strict rule of exclusion, opinion testimony is admitted because of necessity in two situations: first, upon matters about which an ordinary witness cannot detail pertinent facts in such a manner that the jury would derive most from his observation without the use of inferences; and second, in the use of expert testimony. It is recognized that many things do

8. In addition to the cases *supra* note 7, see United States v. Cotter, 60 F.2d 689 (2d Cir. 1932); Colvin v. State, 247 Ala. 55, 22 So.2d 548 (1945); Detzur v. B. Stroh Brewing Co., 119 Mich. 282, 77 N.W. 948 (1899); Patrick v. Treadwell, 222 N.C. 1, 21 S.E.2d 818 (1942).

9. Rule 401. "Testimony in Terms of Opinion. (1) In testifying to what he has perceived a witness, whether or not an expert, may give his testimony in terms which include inferences and may state all relevant inferences, whether or not embracing ultimate issues to be decided by the trier of fact, unless the judge finds (a) that to draw such inferences requires a special knowledge, skill, experience, or training which the witness does not possess, or (b) that the witness can readily and with equal accuracy and adequacy communicate what he has perceived to the trier of fact without testifying in terms of inference or stating inferences, and his use of inferences in testifying will be likely to mislead the trier of fact to the prejudice of the objecting party. (2) The judge may require that a witness, before testifying in terms of inference, be first examined concerning the data upon which the inference is founded."

not lend themselves to factual description. The appearance of persons or things, identity, the manner of conduct, competency of a person, feeling, degrees of light or darkness, sound, size, weight, distance and an endless number of things cannot be described factually in words apart from inferences.[10] Much evidence would be lost if witnesses were not permitted to testify in terms of impression and opinion. The necessity which makes opinion testimony of laymen admissible arises out of the inadequacy of expression to communicate otherwise the perceptions of the witness. The reason of necessity as applied to the admission of expert testimony arises from the inability of triers of fact to resolve certain issues requiring persons with special skills, experience, or scientific knowledge to understand them. In many cases involving special knowledge, the ordinary jury or judge in cases tried to the court would be helpless without the aid of the expert. Thus, the opinion rule of exclusion, like the hearsay rule, involves so many exceptions that nearly as much opinion evidence is admitted as is excluded. In respect to admissible expert opinion, a body of rules has grown up involving techniques and skills almost equalling in complexity the subject matter about which the expert testimony is given.

When May Expert Testimony Be Used?

The use of expert opinion has expanded with the continuous and rapid progress of science which has opened up new areas of scientific proof. New developments involve new sources of litigation, the solution of which requires the knowledge of experts. Also, scientific methods of proof upon ordinary issues have opened a broader field of expert testimony. Illustrative of the advances of scientific proof is the analysis of blood to determine paternity or to determine intoxication.[11] In the criminal law area, crime detection

10. Britt v. Carolina Northern R. Co., 148 N.C. 37, 61 S.E. 601 (1908). See extensive Note, L.R.A. 1918A 662-749, collecting cases upon each of the matters stated.

11. Regarding paternity, the court in Beach v. Beach, 114 F.2d 479 (D.C. Cir. 1940) held that properly administered blood tests can conclusively disprove paternity. In Jordan v. Mace, 69 A.2d 670 (Me. 1949), 3 Vand. L. Rev. 827 (1950), the court stated that if the test showed non-paternity the jury could determine only whether conditions existed which made biological law operative and if so found the exclusion of the defendant as father followed irresistibly. The reliability of the blood test as an indicator of the truth has been fully established states the court in Cortese v. Cortese, 10 N.J. Super. 152, 76 A.2d 717 (1950) (paternity case). In C v. C, 109 N.Y.S.2d 276 (Sup. Ct. 1951), the New York court held that a blood test proving that husband could not have been father overcomes the strong presumption of legitimacy even though husband had access during period of probable conception. The Ohio Supreme Court has recently held that a blood test showing mere possibility of paternity will not be admitted in evidence. This ruling will no doubt encourage the use of blood tests on the part of the defendants in these actions as they now have everything to gain and nothing to lose by such use. State *ex rel.* Freeman v. Morris, 102 N.E.2d 450 (Ohio 1951). For further statistics on the widespread use of blood grouping tests, see Maguire, *A Survey of Blood Group Decisions and Legislation in the American Law of Evidence,* 16 So. Calif. L. Rev. 161 (1943). In regard to intoxication see State v. Werling, 234 Iowa 1109, 13 N.W.2d 318 (1944); State v. Haner, 231 Iowa 348, 1 N.W.2d 91 (1941). See Ladd & Gibson, *The Medico-Legal Aspects of the Blood Test to Determine Intoxication,* 24 Iowa L. Rev. 191 (1939).

laboratories have immeasurably widened the use of scientific methods of proof.[12] Expert comparative analyses of handwriting, fingerprints, ballistic tests and many other matters involving identity, are a regular procedure in criminal investigations.[13] Experts have been permitted to testify that an important witness in a criminal case was a pathological liar.[14] The unfair trade practice cases and the rise of pollsters to get the low-down on everything have resulted in a new area of expert testimony to provide a method of proof, or perhaps lessen the degree of guess work where the issue is whether the public has been misled.[15] The courts have even resorted to experts in literature or art to give their opinion as to whether a writing is literature or a painting is art, so as to escape the legal ban on the obscene.[16] Property valuations, accounting problems and matters involving engineering science require much reliance upon experts.[17] Medical testimony is perhaps the most common type of expert testimony because of the wide variety of litigation in which the physical or mental condition of persons is a major issue. The prospect for the future is more, rather than less, expert testimony, as a part of the growth of a scientific society in a complicated age. There is no more certain test for determining when experts may be used than the common sense inquiry whether the untrained layman would be qualified to determine intelligently and to the best possible degree the particular issue without enlightenment from those having a specialized understanding of the subject involved in the dispute.[18] Whenever the triers of fact are confronted with issues which cannot be determined intelligently on the basis of ordinary judgment and practical experience gained through the usual affairs of life, the benefit of scientific or specialized knowledge or experience may be provided by use

12. O'HARA AND OSTERBURG, AN INTRODUCTION TO CRIMINALISTICS (1949); SÖDERMAN AND O'CONNELL, MODERN CRIMINAL INVESTIGATION c.24 (Rev. ed. 1945).

13. See PERKINS, ELEMENTS OF POLICE SCIENCE (1942).

14. United States v. Hiss, 88 F. Supp. 559 (S.D.N.Y. 1950), 30 NEB. L. REV. 513 (1951). See Falknor, *Evidenee,* in 1950 ANNUAL SURVEY OF AMERICAN LAW 804, 804-07 (N.Y.U. 1951).

15. United States v. 88 Cases, More or Less, Containing Bireley's Orange Beverage, 187 F.2d 967 (3d Cir. 1951). See Kennedy, *Sampling by the Food and Drug Administration,* 6 FOOD-DRUG-COSMETIC L.J. 759, 768 (1951); Kennedy, *Some Legal Aspects of Sampling,* Industrial Quality Control, Jan., 1951, p. 24, *id.,* March, 1951, p. 12.

16. Expert testimony in the obscene literature cases has been held admissible but not controlling. United States v. Two Obscene Books, 99 F. Supp. 760 (N.D. Calif. 1951).

17. State v. Hayes, 127 Conn. 543, 18 A.2d 895 (1941) (expert accountant's testimony held indispensable); Abbott v. Hayes, 92 N.H. 126, 26 A.2d 842 (1942) (engineering science); Weston Electrical Instrument Corp. v. Newark, 11 N.J. Super. 493, 78 A.2d 592 (1951); State v. Ward, 222 N.C. 316, 22 S.E.2d 922 (1942) (accountant); State v. Hightower, 187 N.C. 300, 121 S.E. 616 (1924) (accountant). See in this connection, Maguire & Hahesy, *Requisite Proof for Basis for Expert Opinion, infra* p. 432.

18. Grismore v. Consolidated Products Co., 232 Iowa 328, 5 N.W.2d 646 (1942); Rempfer v. Deerfield Packing Corp., 4 N.J. 135, 72 A.2d 204 (1950); see ROGERS, EXPERT TESTIMONY § 948 (11th ed. 1912); Morris, *The Role of Expert Testimony in the Trial of Negligence Issues,* 26 TEXAS L. REV. 1 (1947). In this article Professor Morris discusses many cases in which expert testimony is used to help the jury to understand more appreciably matters sufficiently within their common understanding. This valuable article should aid advocates in the use of expert testimony on negligence issues.

of expert testimony. Stated in the negative, expert testimony is not admissible to prove or disprove matters within common knowledge as to which facts may be so described that the triers of fact may form a reasonable opinion themselves. Furthermore, the issue must be such that the expert may answer by giving an opinion that is a reasonable probability rather than conjecture or speculation.

The foregoing tests of rules of admissibility are necessarily general in character and are dependent upon the particular facts for their application. There is surely no uniformity in their use and they have been criticized as being inconsistent with the admission of other competing lay testimony.[19] An ordnary witness, for example, may express his opinion as to the sanity of a person and yet the reason an expert may do so is that sanity is not a matter of common knowledge.[20] This, however, is readily explainable in that the lay witness is using his opinion as a composite expression of his observations otherwise difficult to state, whereas the expert is expressing his scientific knowledge through his opinions. The same is true as to handwriting upon which the lay witness may express his opinion as to the genuineness of a person's signature based upon past observation but only an expert can make a comparative analysis of the questioned document and standards of comparison.[21] Although there are many matters upon which the ordinary witness may express an opinion as the best method of communicating his perceptions, only an expert is permitted to answer hypothetical questions.[22]

The significance of expert testimony varies with the kind of expert testimony involved. In some cases expert testimony is essential to sustain a determination of the issues; in others it is not only unnecessary, but if given, a verdict may be rendered contrary to the opinion expressed. In a malpractice action where the issue is the alleged incompetency or unskillfulness of physician or surgeon, expert testimony is necessary to show the standard of

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19. KING AND PILLINGER, OPINION EVIDENCE IN ILLINOIS 38-46 (1942); 7 WIGMORE, EVIDENCE § 1919; BUSCH, LAW AND TACTICS IN JURY TRIALS §§ 382, 383 (1949).

20. In most states a lay witness acquainted with a person may express an opinion as to his sanity. Pierce v. Pierce, 174 Tenn. 508, 127 S.W.2d 791 (1939), 16 TENN. L. REV. 243 (1940); State v. Schneider, 158 Wash. 504, 291 Pac. 1093, 72 A.L.R. 571 (1930). Specialists in mental diseases may in all states express their opinion based on personal knowledge or in answer to hypothetical questions. See the valuable work, WEIHOFEN, INSANITY AS A DEFENSE IN CRIMINAL LAW c.5 (1933). By the majority rule a practicing physician, although not specializing in mental diseases, may qualify as an expert, but under the minority holdings greater qualifications are required and the ordinary physician may not testify as an expert on sanity. Note, 19 TENN. L. REV. 361 (1946).

21. Copeland v. State, 66 Ga. App. 142, 17 S.E.2d 288 (1941); Brien v. Davidson, 225 Iowa 595, 281 N.W. 150 (1938); *In re* Renter's Estate, 148 Neb. 776, 29 N.W.2d 466 (1947); Johnston v. Bee, 84 W. Va. 532, 100 S.E. 486, 7 A.L.R. 252 (1919).

22. George v. State, 240 Ala. 632, 200 So. 602 (1941); Grissom v. State, 33 Ala. App. 23, 30 So.2d 19 (1947); De Donato v. Wells, 328 Mo. 448, 41 S.W.2d 184, 82 A.L.R. 1331 (1931); see note 42 *infra*.

the profession, departure from it and the causal result.[23] As stated by one court in a case involving treatment of a fracture of a femur,

> ". . . in matters requiring special skill and training, it is not permissible for laymen as nonexperts to set up any artificial standards as to methods of treatment. This is especially true in surgery; for in that field neither courts nor juries are presumed to know more regarding methods of treatment than ordinary laymen, and that is practically nothing. After hearing the theories, deductions and scientific facts from experts, both judge and jury must often oppose one set of opinions against another and determine which is the more reasonable, but they cannot, without some guide, presume to fix any standard upon which to determine the correctness of any kind of treatment."[24]

On the other hand where the want of skill or care is so apparent as to be within the comprehension of laymen who through their common knowledge and experience are able to judge it, expert evidence is unnecessary. An illustration of this limitation upon the requirement of medical experts is the application of the doctrine of res ipsa loquitur in cases where a foreign body has been found enclosed in the incision of a wound.[25] Such exceptions are not in conflict with the rule requiring experts, as they are but applications of the common knowledge rule.

Upon matters which would at least superficially seem to be closely related there is sometimes a wide difference in the weight accorded to expert testimony. The opinion of the fingerprint expert upon the similarity or difference between the print in question and the standard of comparison is highly respected[26] but many courts do not hold handwriting experts in the same regard and instruct juries that this is one of the lowest forms of evidence.[27] While the advancement in the science of handwriting study may no longer justify such an estimate, there is a basic difference between them. The papillary ridges of a fingerprint are permanent physical characteristics of a person set in an individualized pattern which may be identified with great certainty by the expert. Handwriting is at least subject to conscious control by the writer and though habit may prevent complete concealment by the forger, it is much more difficult for the expert to reach an opinion which will stand close testing. Again in respect to expert opinion on the results of

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23. Bearman v. Prudential Ins. Co. of America, 186 F.2d 662 (10th Cir. 1951); Christie v. Callahan, 124 F.2d 825 (D.C. Cir. 1941); Ewing v. Goode, 78 Fed. 442 (C.C.S.D. Ohio 1897); Lashley v. Koerber, 26 Cal.2d 83, 156 P.2d 441 (1945); Mayo v. McClung, 83 Ga. App. 548, 64 S.E.2d 330 (1951). However expert testimony is not necessary where the unskillfulness is so gross as to be witbin the knowledge of laymen. See note 25 *infra*. For general discussion of the subject see Note, 141 A.L.R. 5 (1941).

24. Snearly v. McCarthy, 180 Iowa 81, 86-87, 161 N.W. 108, 110 (1917).

25. Ault v. Hall, 119 Ohio St. 422, 164 N.E. 518, 60 A.L.R. 128 (1928).

26. United States v. Kelly, 55 F.2d 67 (2nd Cir. 1932); McLain v. State, 198 Miss. 831, 24 So.2d 15 (1945).

27. Polley v. Cline's Ex'r, 263 Ky. 659, 93 S.W.2d 363 (1936). There has however been much criticism of their position. See 43 HARV. L. REV. 497 (1930); 7 IOWA L. REV. 55 (1921); 14 MICH. L. REV. 77 (1915); 28 *id.* 586 (1930).

polls (in fair trade cases) there is a tendency today to admit the testimony but courts have not felt bound by the opinions expressed.[28] A totally different result should occur in the case of uncontroverted expert opinion, based on the blood test, that a man is not the father of a child in a paternity proceeding. Because of the scientific certainty of the tests the court should compel a finding in accord with the expert opinion in spite of all other evidence to the contrary.[29] The scope of matters subject to expert testimony is unlimited and is constantly changing.[30] Generally as expert testimony approaches the speculative the possibility of its admissibility and its weight if admitted is lessened; but as the certainty of determination or reliability of prediction increases, its admissibility is assured and its strength is recognized.

Qualification and Foundation Testimony

There are two general classes of experts and some attempt has been made to divide them into skilled witnesses and expert witnesss.[31] In the first class are grouped those who have personal knowledge about the subject in inquiry and provide both factual information and opinions or conclusions upon it. In the second class are the super-experts or specialists who may have no knowledge at all about the facts of the case but are highly trained or educated in their field so that their opinions upon the subject in inquiry should have special value. This class will be referred to as super-experts and their testimony is confined to answering hypothetical questions. Both classes are regarded as expert witnesses or they would not be permitted to express opinions. An expert who is personally familiar with the facts, as the physician or surgeon who attends a patient, may express his opinions based upon personal observation and also answer hypothetical questions involving his specialized knowledge upon the subject.[32] The qualifications of experts and right to use them are interrelated. The expert must be shown to be informed upon the matters in issue upon which the ordinary person is not informed. Wide discretion is given to the trial judge in determining the

28. See note 15 *supra.*

29. See note 11 *supra.*

30. "With the perennial expansion of human knowledge, a constant shift in applicability of expert testimony occurs. Matters lying at one time in the precincts of speculation so dubious that the courts will not listen to evidence about these unaccepted notions later on fight their way into the precincts where *experto credite* holds sway. From there some of them go forward into the realm of general community knowledge, so that laymen may testify reliably about them, or even into the select realm of judicial notice, so that they are taken for granted without formal introduction of evidence. Instances are legion and will leap into anybody's mind—what have now become the commonplaces of aviation or radio will do for samples." Morgan and Maguire, Cases and Materials on Evidence 803 (3d ed. 1951).

31. Busch, *op. cit. supra* note 19, § 384.

32. Where personal observation of an expert witness is had, hypothetical questioning is unnecessary, 2 Wigmore, Evidence § 675; but it may be used if the witness is otherwise qualified, *id.* § 678. However, where personal observation is lacking it must be used, *id.* § 676.

qualifications and his decision is final except in the case of a clear and flagrant abuse.[33] The qualification of the expert is not perfunctory, although its significance and its ultimate effect upon evaluation of the testimony is sometimes overlooked. Indeed, opposing counsel may be willing to stipulate that the expert is qualified but no greater mistake could be made by the party offering the witness. If the expert is permitted to testify because of his experience through which he has gained special knowledge, that experience is as important to the weight of his testimony as it is to its admissibility. It is equally important to show the detailed educational background of an expert whose qualification is his special training. A wide range of witnesses with varying degrees of expertness are permitted to express their opinions and the respect for their testimony rests in the qualification process and the foundation testimony.

The requirement of foundation testimony as a condition to the expression of an opinion by an expert who is personally familiar with the facts to which the testimony is directed varies. The Model Code of Evidence permits the expression of an opinion based upon personal knowledge without relating the facts upon which his opinion is founded unless the court requires otherwise.[34] The opportunity of the opponent to cross-examine is looked upon as a sufficient safeguard to faulty testimony. The rule eliminates quibbling about insufficient foundation and pointless reversals. It is generally held, however, that a skilled or expert witness must first narrate in detail the perceived facts upon which his opinion testimony is based.[35] This problem comes up regularly in the case of the physician or surgeon who has attended a patient. Good trial practice, however, would nearly always require a careful statement of the facts. Such procedure is necessary to make a record if hypothetical questions are to be asked. It would be in a large measure the testimony of the attending physician which would make the factual record upon which another specialist or super-expert, unfamiliar with the particular case, would express his opinion. The foundation testimony takes on added significance in the marginal cases where the subject matter approaches what might be regarded as matters of common knowledge. The opinions expressed, if founded upon carefully presented factual data, enable the triers of fact to understand and apply them rather than be forced to accept or reject them on their determination of the reliability of the expert only.

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33. Vanarsdol v. Farlow, 200 Iowa 495, 203 N.W. 794 (1925); State v. Brewer, 202 N.C. 187, 162 S.E. 363 (1932).

34. Rule 401 (2), set out *supra* note 9; *accord,* Blake v. City of Bedford, 170 Iowa 128, 151 N.W. 74 (1915); People v. Faber, 199 N.Y. 256, 92 N.E. 674 (1910); Grison Oil Corp. v. Corp. Comm'n, 186 Okla. 548, 99 P.2d 134 (1940).

35. Gutt v. Waller's Estate, 215 Mich. 572, 184 N.W. 529 (1921); Irion v. Hyde, 110 Mont. 570, 105 P.2d 666 (1940).

ULTIMATE FACT

Some courts still struggle with the propriety of asking an opinion question calling for the ultimate fact which the jury is to decide. Reversals are predicated upon this assumed error alone, even though these courts would have approved a series of questions which hedged about the problem but from the answers to which the view of the experts on the ultimate issue was as plain as the sun on a bright day. The tricky process of wording the questions, disguising the opinion so that it appears to be a secondary rather than a primary inference with the subtle distinctions of phraseology, is necessary under the views of these courts to preclude the jury from stealing their final conclusion directly from the opinion expressed. The fact that a jury is no more required to accept a questionable opinion of an expert than it is required to accept a false statement of fact, does not alter the position taken. Nor does it make a difference that the experts for each side express exactly opposite opinions and that it is for the jury to select the opinions which correspond to their own thinking upon the problem. The wrong has been done if the form in which the opinion is asked calls for the ultimate issue submitted to the jury for a decision.

A great deal has been said about the province of the jury to draw conclusions, and this helps to clutter up the reasoning upon the point.[36] Fortunately in this day of more realistic law, many courts are making the break and are treating this problem in a more sensible fashion. The Iowa court overthrew many sins of the past and got on the right road in the case of *Grismore v. Consolidated Products Company.*[37] A turkey raiser wanted to make his turkeys grow faster and he yielded to the sales talk of the salesman of a food products company. The magic food was called "E-emulsion" and the turkey raiser contracted for quantities of it which he fed to great numbers of healthy poults. Although assisted by the salesman so as to feed it properly, the turkeys died in great numbers long prior to their normal execution date. As a result, a lawsuit was instituted. There was no question that the turkeys were dead. The sole issue for the jury to decide was what caused the death of the turkeys. The trial court permitted counsel for the turkey raiser to ask of an expert on turkey raising, in substance, what in his opinion, caused the death of the turkeys?[38] To this question vigorous and learned objections were urged. The court, a practical-minded judge, thought the jury ought to know what the expert did think about it, overruled the ob-

36. Note, *Expert Testimony as an "Invasion of the Province of the Jury"* 26 IOWA L. REV. 819 (1941); 7 WIGMORE, EVIDENCE §§ 1920, 1921; 2 WHARTON, CRIMINAL EVIDENCE, § 957 (11th ed. 1935).

37. 232 Iowa 328, 5 N.W.2d 646 (1942); see also Shepherd v. Midland Mut. Life Ins. Co., 152 Ohio St. 6, 87 N.E.2d 156, 12 A.L.R. 2d 1250 (1949).

38. 232 Iowa at 341, 5 N.W.2d at 654.

jections and permitted the answer. The expert then placed the entire blame on "E-emulsion." On appeal it took a very able supreme court judge 34 solidly printed pages to prove that the trial court was right. Six leading cases of the jurisdiction were overruled by name and an endless number of decisions were overruled by implications. The court vigorously approved the rule of the Model Code of the American Law Institute, which was set out in the opinion for the benefit of future reference.

The opinion is so ably written that it ought to have awakened other courts to the possibility of making a clean sweep on this disturbing problem. Nevertheless, here and there, the courts in many jurisdictions still state as a basic rule in the law of evidence that an expert may not be asked a question calling for an opinion upon an ultimate fact which the jury must decide.[39] Indeed, some authors have praised this in recent times as a sound doctrine.[40]

Even if it be assumed that the court will permit counsel to ask questions calling for opinion upon an ultimate fact, it does not necessarily mean that all questions should be asked that way or that such questions should in every instance be allowed. In a tort question for negligence the most ultimate question would be, "Should the plaintiff or the defendant win?", and yet such inquiry would be improper, not just because it called for the ultimate fact but rather because it wouldn't be very helpful to the triers of fact. Again in a will contest involving mental capacity, there would really be nothing terribly harmful in asking the expert witness if he believed the testator had the mental capacity to make a will. The jury would not need to accept the expert's view. Perhaps it could be claimed to be a conclusion of law rather than of fact, because it would embody in the question the assumption that the witness knew the legal limits on the kind of competency required to make a valid will. The witness very likely may not know this and could conceivably have in mind a much higher or a much lower standard than the law requires. Therefore it would be much better that counsel ask the expert witnesses whether testator had the mental capacity to appreciate the nature and extent of his holdings and the natural objects of his bounty.[41] These, of course, would be ultimate facts making up the group of facts from which the ultimate conclusion would be drawn. Because jurors realize that they are the final triers to determine the issues and are reluctant to part with that right, there isn't much danger in reality from the use of all-embracing questions. From the standpoint of the objecting party these may do him much less harm than more

39. *Supra* note 36.

40. KING AND PILLINGER, *op. cit. supra* note 5. For clear and incisive criticism see Morgan, Book Review, 29 VA. L. REV. 970 (1943). See also Wigmore's considered criticism of the ultimate fact rule. 7 WIGMORE, EVIDENCE § 1929.

41. Prescott v. Merrick, 47 N.D. 67, 179 N.W. 693 (1920). For extensive note collecting cases discussing the proper method of questioning witnesses regarding mental capacity to execute a will, see Note, 155 A.L.R. 281 (1944).

skillfully asked questions which develop the opinion step by step leading the jury to accept the desired conclusion. A rule such as that adopted by the Model Code of Evidence or by the *Grismore* case simply eliminates unnecessary reversals on the imaginary error that the jury has been robbed of their power to decide.

Hypothetical Questions

A hypothetical question will always be difficult for the attorneys to frame, for the court to rule on, and for the jury to understand. Perhaps the one who suffers most is the witness who is required to answer. Unless the whole scheme of use of opinion evidence is changed, the hypothetical question will nevertheless remain important in spite of all the troubles with it. The use of hypothetical questions is indispensable under the present system if super-experts are to contribute their opinions involving highly scientific matters upon factual situations of which they have no personal knowledge. While the hypothetical question may be used to interrogate an expert who has also perceived the matters about which he testifies, it is the principal if not the only means of bringing to the triers of the fact the opinions of the super-expert.[42] The hypothetical question is dependent upon the assumption of the existence of facts which may or may not be true and upon the truth of which the expert may have no knowledge. Upon the assumption that the facts do exist, however, his opinion because of his superior knowledge may be very helpful. It is quite obvious that where conflicts of testimony exist, a cross-examining attorney will usually emphasize the fact that the expert in expressing his opinion has not attempted to state the truth or falsity of the facts upon which his opinion is expressed. If the triers of fact accepted as correct the expert conclusion or opinion of the witness, their task would then be to determine only the truth or falsity of the assumed hypothesis. The matter becomes more complicated when several super-experts are used and there is a conflict both upon the assumed facts and upon the opinions expressed. One of the best methods of examining the function of and limitations upon questioning the super-expert is to consider the methods of his cross-examination. The following questions point out the problems: Was his opinion based in part upon matters not included in the assumed statement of facts? Would the assumption of other facts in connection with the facts stated in the hypothetical question result in a different opinion? If certain facts were eliminated from the hypothesis, would the conclusion be the same? Framing the hypothesis upon the cross-examiner's view of what the record disclosed, what would be the opinion of the expert? Objection should be urged whenever

42. 2 Wigmore, Evidence §§ 672, 676, 681 (3d ed. 1940); Bush, Law and Tactics in Jury Trials § 393 (1949); Rogers, Expert Testimony § 48 (1941). See note 22 *supra.*

the question asked assumes the existence of facts not found in the record.[43] If the evidence is conflicting, each party attempts to present to the super-expert for his opinion assumed facts which represent his version of what the true facts are. The hypothetical question is a logical and scientific means of obtaining from the specialist the benefit of his learning, but in the adversary process of trial it has been the subject of great abuse.

Associated with the hypothetical question is the practice employed in some states of having the super-expert attend the trial and then ask him as a witness to express his opinion based upon certain testimony which he had heard in the case.[44] This form of hypothetical examination has the advantage of simplicity but may not be sufficiently specific to help the triers understand more than the expert's overall conclusion. If asked to assume all the testimony given on one side of the case as true and there were many witnesses it would be difficult to evaluate the opinion and yet this has been permitted.[45] A question asking an expert to assume the truth of the testimony of the previous witness should not be too confusing if the testimony consisted of facts. If it included opinion also the question should be confined to an assumption of the facts stated.[46] The expert cannot predicate his conclusions upon the opinions of other witnesses.[47] Examining a super-expert by asking him to give an opinion on testimony of other witnesses not incorporated in a hypothetical question avoids surely any danger that the question is not supported by the trial record. If it can be made clear to the witness and to the triers what the witness is assuming, this form of question has the value of simplicity. However if there have been many witnesses and conflicts in the testimony, this method of examination may become more confusing than even long hypothetical questions. The singling out of the testimony of a particular witness as a basis of the expert's opinion may also give the triers a distorted emphasis and prevent a fair consideration of the evidence in its entirety. This method of examination, however, has received favorable consideration

43. De Donato v. Wells, 328 Mo. 448, 41 S.W.2d 184, 82 A.L.R. 1331 (1931).

44. Burdick v. Mann, 60 N.D. 710, 236 N.W. 340, 82 A.L.R. 1443 (1931); 2 WIGMORE, EVIDENCE § 681. An associated problem not considered in the present article is the right to use an expert's opinion based upon the reports of others not in the record, such as the report on the examination by another physician or hospital charts showing treatment and progress of a patient. The prevailing view precludes such examination on the basis of hearsay, but there are strong statements to the contrary on the theory that an expert is competent to judge the reliability of statements and reports of other technicians and is the only source of their evaluation, as they are scientific in character. See McCormick, *supra* note 1, at 126-28; collected cases in Note, 82 A.L.R. 1460 (1933).

45. State v. Eggleston, 161 Wash. 486, 297 Pac. 162 (1931). When the scope of the question covers several witnesses, such as attending physicians, who had expressed consistent factual data, a question assuming the truth of the facts stated by them should be sufficiently focused to present an expert's opinion. Damm v. State, 128 Md. 665, 97 Atl. 645 (1916).

46. Carrigan v. United States, 82 F.2d 106 (9th Cir. 1936); Cody v. Toller Drug Co., 232 Iowa 475, 5 N.W.2d 824 (1942).

47. Mt. Royal Cab. Co. v. Dolan, 168 Md. 633, 179 Atl. 54, 98 A.L.R. 1106 (1935).

and in some cases may provide the best method of presenting the expert's opinion.[48] It is in effect a hypothetical question without a statement of the assumed facts and therefore must have sufficient reference to identify the basis of the opinion.

Hypothetical questions have been the subject of justified criticism and even their abolishment has been urged.[49] Partisan bias, length of questions, awkwardness and complexity of expression have placed a stigma upon them as an obstruction to the administration of justice.[50] It is not uncommon that a single question may run into several typewritten pages and in one case a question extended over 83 pages of the reporter's transcript followed by an objection covering 14 pages.[51] With lengthly questions often written in advance and read to the super-expert, the witness must have a super understanding as well as superior knowledge if he is to comprehend in one mental operation the entirety of what has been asked so as to give any answer. What the jury thinks is hard to tell. If their previous experience in the trial has not left them in a state of awe and bewilderment, the long hypothetical question will do so. Surely more direct simple questioning is preferable. The breakup of the long question into several shorter questions could remedy this. It is not required that every hypothesis be included within each question. If counsel avoid overstatement and ask questions containing a fair and dispassionate hypothetical presentation of the evidence relied upon as sustaining their theory of the proof, the hypothetical question can better perform its intended function. There is at least some value in hypothetical questions.[52] If not, the last two and a half centuries of trials in which this type of expert testimony is used has been wasted effort accomplishing no more than to demonstrate legalistic skills of the clever and the learned of the legal profession. Some may feel this is the case. Surely there is room for improvement and there ought to be the same urge in this direction that brought about the great reform in the rules of procedure during the last twenty years.

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48. For excellent discussion of this problem see McCormick, *supra* note 1, 123-26; see also 2 WIGMORE, EVIDENCE § 681. Dean Wigmore recommended a rule in legislative form permitting an expert, subject to the court's discretion, to be asked questions based upon testimony which he had heard. *Id.* § 686.

49. 2 WIGMORE, EVIDENCE § 686; McCormick, *supra* note 1, at 128-30.

50. The court in *In re* Dolbeer's Estate, 149 Cal. 227, 243, 86 Pac. 695, 702, (1906), termed evidence adduced by the hypothetical question as the most weak and unsatisfactory and stated that this type evidence is steadily decreasing in value. It suggested, "The remedy can only come when the state shall provide that the courts, and not the litigants, shall call a disinterested body or board of experts, who shall review the whole situation and then give their opinion, with their reasons therefor, to the court and jury, regardless of the consequences to either litigant." See, also, Opp v. Pryor, 294 Ill. 538, 128 N.E. 580 (1920); Roberts v. New York El. Ry. Co., 128 N.Y. 455, 28 N.E. 486 (1891).

51. Treadwell v. Nickel, 194 Cal. 243, 228 Pac. 25 (1924), cited by McCormick, *supra* note 1, at 126.

52. Howard v. People, 185 Ill. 552, 57 N.E. 441 (1900); Morrison v. McLaughlin. 191 Iowa 474, 182 N.W. 671 (1921).

TECHNIQUES AND REASONING

The subject of expert testimony cannot be considered simply through the rules pertaining to admissibility. Techniques and skills are equally important. Although the subject matter of expert testimony involves knowledge beyond the understanding of the ordinary person, the triers of fact consist of ordinary persons. The purpose of expert testimony is to communicate to this body of ordinary persons the wisdom and understanding necessary for the triers to exercise sound judgment in determining the issues in controversy. The examination of experts should be directed to this end. As far as possible the examination should be conducted in such manner that a juror should be able to say, "My conclusion is in accord with the opinion of the expert, not because he has expressed the opinion, but because he made me understand the facts in such a way that my opinion is the same as his." In the case of handwriting comparisons the expert may point out the particular indications of similarity or difference upon which he bases his conclusion so that the triers will take into account those same factors, as well as the expert's opinion, in formulating their conclusion. The same is true in the use of fingerprint testimony. The triers should be able to say, "I see why the prints are the same," rather than conclude that if the expert expressed an opinion of identity, it must be true. X-ray films and any other type of expert testimony subject to illustrative demonstration become effective when treated in this manner. It is proper for the expert witness who has given his opinion to express his reasons therefor and this is necessary if the opinion is to have persuasive value.[53] Thus in the jurisdictions in which the expert with personal knowledge may express his opinions without relating the facts upon which they are based, the procedure should never be followed if the greatest effect is to be obtained from his testimony. Simplification and explanation rather than confusion and profundity should be the goal.[54] This does not minimize the importance of careful presentation of the qualifications of the expert to create respect for his opinion, but added to this respect the reasons for the opinion, if understood, give the opinion weight.

53. State v. Baptiste, 26 La. Ann. 134 (1874); Wright v. Flynn, 69 N.J. Eq. 753, 61 Atl. 973 (Prerog. Ct. 1905). People v. Faber, 199 N.Y. 256, 92 N.E. 674 (1910). It was stated in Long Beach City High School District v. Stewart, 30 Cal.2d 763, 185 P.2d 585 (1947), that while mere opinions may properly be considered by the triers of fact, the weight given to opinions is determined by the reasons given in their support. See Osborn, *Reasons and Reasoning in Expert Testimony*, 2 LAW & CONTEMP. PROB. 488 (1935).

54. "Expert witnesses are prone to use the technical vocabulary of their profession. An examining advocate, whose specialized practice or particular pre-trial preparation has, to a degree, educated him in the professional terminology, may easily fall into the same habit. The result of such an examination, so far as the average jury is concerned, may be scientifically worded testimony, the purport of which is wholly or partly missed by the triers chosen to decide the issue involved. The knowing advocate will sedulously avoid the use of technical words and expressions in his questions." BUSCH, LAW AND TACTICS IN JURY TRIALS 633 (1949).

The different subjects of expert testimony make a wide variation in the extent to which the expert can assist the triers to understand the problem they are to decide and to use discriminating judgment in reaching a decision. Scientific testimony on some matters is an educational process to create an awareness of factors which enable the triers to make intelligent observations on their own. In other cases little helpful reasoning can be given to the ordinary juror to enable him really to understand. Much must be accepted or rejected on faith in the experts. Whether a personal injury is permanent or whether it resulted from a certain cause may present a scientific problem the opinion upon which only a scientist is able to evaluate scientifically. Yet doctors, who are notoriously in agreement in their advice to a private patient or who at least come to conclusions in consultation with each other, as witnesses in a trial over a similar issue, may express opinions diametrically opposed to each other. Under our present system of trial it is for the jury to decide. It is at best rough justice. Evaluation of the expert often may be the only method to evaluate his opinion in cases of this kind. Busch, in commenting upon the purpose of cross-examination of the expert, listed points of testing a witness which in turn show what is relied upon to persuade the triers. He states:

> "The cross-examination of skilled and expert witnesses, if undertaken, should be directed to (a) showing a lack of qualification, (b) a motivating interest, (c) error in the observed or assumed facts, (d) error in conclusions or opinions, (e) specific impeachment, i.e., previous contradictory or inconsistent statements or writings, or lack of general credibility. Unless a cross-examination can be effectively directed to one of these objectives, it should not be undertaken."[55]

Each of these points ordinarily can be dealt with in a reasonable, although sometimes disturbing manner, except the opposing opinions of the experts on matters highly technical in character. In most cases, however, the scientific problem is not so far beyond the reach of the ordinary person that the reasons and theory back of an opinion serve no purpose in creating an intelligent understanding. Quite to the contrary, qualified experts may be used to throw a surer light upon a case by refinement of the average juryman's knowledge.[56] The use of experts increases the odds of obtaining a proper verdict by presenting observations and opinions upon aspects of the facts which otherwise might escape consideration. There is an increasing number of cases in which expert testimony may not be required to make a prima facie case for submission to the jury but may be admitted if offered to enable the triers to better understand by the aid of scientific opinion evidence.[57] There are few places in the law of evidence in which techniques and "know how" require a

55. *Id.* at 635.
56. Morris, *supra* note 18.
57. *Ibid.*

closer interrelation between the principles of admissibility and the problem of weight. The very basis of admission of expert testimony rests upon the question of its value to the triers. The techniques and skills in the use of scientific proof evolve about the procedures of making this value real.

CONCLUSION

Although expert testimony has been subject to a great deal of criticism, not too much has been done about it. Personal experience on the part of the writer in the trial of a substantial number of cases in which expert testimony has been used leads to the conclusion that surely in all cases the available procedures under existing law do not work an injustice or impair fair presentation of technical proof. The same statement however could be made by all members of the legal profession in respect to the obsolete rules of civil procedure which have been replaced by modern codes. Every thoughtful consideration of the rules of evidence as they pertain to expert testimony ought to be directed to the now existing drafts of modern rules for the improvement of expert testimony designed to eliminate the obstructions to its best use. The work of the Commissioners of Uniform State Laws, resulting in the Model Expert Testimony Act, represents a serious effort striking at the heart of the problem. It has received very limited adoption, although much praise.[58] The work was so well done that the draftsman of the Model Code of Evidence of the American Law Institute adopted it with but slight changes, which should be an indication that the type of solution to meet the needs is pretty well recognized. While the Model Code of Evidence has not been adopted in any state, the Code, including the chapter on opinion evidence,[59] has exercised a great influence upon the courts. Perhaps the most significant improvement through legislative action has been in respect to the problem of insanity in criminal cases. Provisions for having the accused examined by experts selected by the court to report upon his sanity or sending him to a state hospital or before a commission for observation and examination with report upon conclusions is gaining ground as a method of handling this problem.[60] The tendency of present day thinking is in favor of eliminating, as far as possible, the adversary aspects of the use of experts and considering the scientific inquiry more in accord with the practices of the early law where persons with special knowledge got together to discuss the issue with each

58. This act was approved by the commissioners in 1937 as a Uniform Act, and was redesignated as a Model Act in 1943. It was adopted by Supreme Court Rule in South Dakota in 1943.

59. Chapter 5, Rules 401-10. See Grismore v. Consolidated Products Co., 232 Iowa 328, 5 N.W.2d 646 (1942).

60. Weihofen, *An Alternative to the Battle of Experts: Hospital Examination of Criminal Defendants Before Trial*, 2 LAW & CONTEMP. PROB. 419 (1935); WEIHOFEN, INSANITY AS A DEFENSE IN CRIMINAL LAW 210-19 (1933).

other and presented the results of their combined judgment. Under the Model Code of Evidence and the Model Expert Testimony Act, experts could be recommended by the parties but would be appointed by the court, which would tend to eliminate partisanship. They would be permitted to examine the subject in issue and the pertinent data out of court and express their findings and conclusions in a report which would become a part of the record of the case, thus eliminating the confused questioning and hurried conclusions under the pressure of the trial. With the report as the basic testimony of their opinion, they would be subject to further examination in court to check upon the validity of their conclusions. If a party was unsatisfied with the report, opportunity would be provided to call experts of his own choosing to express other views for consideration by the triers. Unlike the early common law inquisitorial system where those with personal knowledge of the facts made a final decision of the issues, the suggested new procedures preserve the essence of the adversary system because the jury would still be the final body to decide the case. The proposals are directed toward the method of presentation of scientific evidence so that the experts may better consider the matters upon which they offer their opinions and the triers be given a better opportunity to understand them. There is everything to be gained and nothing to be lost by the adoption of the Model Acts.