THE PROOF OF PATERNITY AND THE PROGRESS OF SCIENCE*

MALCOLM McDERMOTT †

SCIENTIFIC evidence of blood grouping tests has made slow progress in American courts. Landsteiner's basic discovery of the A-B-O groups in human blood occurred over half a century ago, while Bernstein's determination that Mendel's laws of inheritability applied thereto was announced some thirty years ago. The further discovery of the independent M-N blood types by Landsteiner and Levine in 1927, and of the Rh-Hr types by Landsteiner and Wiener in 1940 served to extend greatly the scope of proof by blood. Yet American courts and legislatures have until recently shown marked reluctance toward making full use of this means science has afforded for the solution of problems of parentage and identity.

These landmarks in scientific discovery are so well known that detailed reference thereto would be superfluous were it not that the dates and time elements are significant. At least a year before the announcement of Bernstein's theories in 1925, German courts, prompted by Schiff, began to admit results of blood grouping tests as relevant evidence in paternity suits. From then on, and particularly after the discovery of the M-N blood types in 1927, results of such tests were admitted in European courts in thousands of cases. Advised by their ministries of justice and other authoritative sources of expert knowledge, courts of most European countries have welcomed this satisfactory form of evidence, and have treated it as conclusive when parentage of the defendant in a paternity suit is shown to be a scientific impossibility.[1]

In contrast, and despite the fact that much of the pioneer work in this field was done in the United States by the recognized experts already named, and despite the scores of learned articles, books, and other reports published by them and others on the subject, courts of the United States have been slow to accord to this type of evidence its proper status as scientific proof. Such progress as has been made has been halting and at times marked by outright reversals. This lag has been explained upon the ground of "inertia" on the part of the public, the scientists, and the legal profession.[2] When one surveys

* This paper was prepared for and read before, the Fourth International Congress of Comparative Law at its meeting in Paris in August, 1954.

† Professor of law, Duke University School of Law, Durham, North Carolina.

1 Schatkin, *Disputed Paternity Proceedings.* (3d Ed.) p. 268 (1953).

2 Britt, *Blood Grouping Tests and the Law,* 21 MINN. LAW REV. 671, 697 (1937).

the mass of able and lucid writings on the subject by American scientists over the years, there appears little justification for including them in the condemnation.

A sounder explanation would seem to be the lack in the United States of liason between the legal and medical professions. If courts are to keep pace with science, then they must be authoritatively advised of what science has to offer. Dean Roscoe Pound has long urged the establishment in the United States of just such an agency, composed of men of law and men of science, that would keep the bench and bar abreast of new means of scientific proof.[3] European courts have long enjoyed the benefits of such a system. Through Institutes of Forensic Medicine, Medicolegal Councils, Ministries of Justice and like agencies they promptly get expert and impartial guidance, often by request, regarding the scientific reliability of proffered evidence. This is what occurred in the matter of blood grouping tests, and in large measure accounts for the early judicial recognition in Europe of what has proved to be one of the most valuable discoveries of the century in the medicolegal field.

American courts have had no such aid. Apart from legislation they must get knowledge of such matters either through the process of judicial knowledge or as a result of expert testimony in each particular case. The latter method is, of course, time consuming, and may involve conflicting testimony by opposing experts. This means that in each case where a party seeks to introduce and rely upon some form of scientific evidence he must first produce experts in that field who can satisfy the court of the scientific quality and reliability of the offered evidence. Such a showing is subject to being rebutted. Surprising as it may seem, in one reported case a physician testified in 1935 in opposition to blood grouping tests that according to his opinion such tests were not conclusive and their value was controversial.[4] Some consolation is to be found in the fact that the court was not impressed by this pseudo-expert.

The other method of getting scientific evidence before a court is through the process of judicial notice, when the court is willing to hold that the reliability of certain evidence is so well established and commonly recognized that formal proof of the scientific laws involved is dispensed with. In Anglo-American jurisprudence judicial notice has no clearly defined metes and bounds. It rests on judicial decison, except in the comparatively few instances where statutes require the courts to take judicial notice of particular facts.

It seems appropriate, therefore, in considering the attitude of

[3] Pound, *A Ministry of Justice as a Means of Making Progress in Medicine Available to Courts and Legislatures,* 10 UNIV. OF CHI. LAW REV. 323, (1943).

[4] Com. v. Viscocki, 23 P. D. & C. 103 (1935).

American courts toward evidence of blood grouping tests to start with the problem of judicial notice. This is a primary question from the point of view of the lawyer, for he must determine whether to go to trial prepared to prove by experts the scientific reliability of blood grouping tests in general and the natural laws applicable thereto, or to run the risk of relying upon the court's judicially recognizing these matters without proof. On this point there has existed considerable confusion.

Judicial Notice

It is generally said that "judicial notice will extend into the realm of medical science to the extent that its dotrines are generally recognized by the profession and the public." [5] The medical profession's attitude toward blood grouping tests is objectively summed up in the 1952 report of the American Medical Association's Committee on Medicolegal Problems appointed to survey the subject, which reads in part as follows:

> "During the past decade, as a result of the introduction of the Rh-Hr tests, the usefulness of blood tests in medicolegal cases has been enhanced considerably. The chief application of the blood tests has been in cases of disputed paternity involving babies born out of wedlock, but the tests are also frequently applied in divorce actions, and occasionally in cases of disputed maternity, as well as in instances of suspected interchange of infants in hospitals. When a man is falsely accused of paternity, he has better than a 50% chance of being exonerated by the combined use of the A-B-O, M-N and Rh-Hr tests, while more than 90% of cases of interchange of infants can be solved by such tests." [6]

An earlier committee report submitted in 1937 had taken an equally definite stand on the scientific reliability of such tests as of that date.[7]

Among laymen the subject matter has long since become a matter of common knowledge, with the setting up of blood banks, continuing blood donations, and routine blood transfusions. These were the considerations which impelled the Court of Appeals for the District of Columbia to extend judicial notice to the subject of blood grouping tests in 1940.[8]

In the light of these well-known facts it would seem needless to argue for judicial notice, and yet it is not many years since the Supreme Court of South Dakota, in the first case involving blood grouping tests to reach a court of last resort in the United States, held that the trial judge, in a rape case wherein defendant denied paternity of

---

[5] 20 Am. Jur. III, Evidence, sec. 97.
[6] 149 Jour. Am. Med. Assn., 699-706 (1952).
[7] 108 Jour. Am. Med. Assn., 2138-2142 (1937).
[8] Beach v. Beach, 72 App. D.C. 318; 114 F.2d 479 (1940).

the child claimed by the prosecutrix to be the result of the rape, had not erred in denying defendant's application for a blood grouping test, because, for one reason, the record failed to show general recognition among experts of the reliability of the tests, such as was accorded, for example, to identification by fingerprints. Defendant's conviction was accordingly sustained.[9]

A remarkable aftermath of this case came in the Court's second opinion handed down some two years later on petition for rehearing, wherein appears the following emphatic language:

> . . . "it is our considered opinion that the reliability of the blood test is definitely and indeed unanimously established as a matter of expert scientific opinion entertained by authorities in the field, and we think the time has undoubtedly arrived when the results of such tests, made by competent persons and properly offered in evidence, should be deemed admissible in a court of justice wherever paternity is in issue." [10]

Despite this complete about-face on the point of judicial notice, the Court nevertheless adhered to its former opinion of 1933 in sustaining defendant's conviction, largely upon the ground that at the time of the trial in 1931 blood grouping tests had not then attained sufficient scientific standing to require the trial court to accord judicial notice thereto, although the Supreme Court had now in 1936 "by assistance of able counsel and from our own subsequent investigations . . . arrived at a complete belief in such reliability."

Thus, somewhere between the years 1933 and 1936 the light of knowledge had penetrated the judicial mind of South Dakota. It is lamentable that in the interest of justice this after-acquired knowledge did not lead the Court to think in terms of fairness to the accused rather than of a techical ground for sustaining a trial judge. With respect to this point it was clearly the duty of the Court in 1936 to reverse the trial court, in the light of its then acquired judicial knowledge.[11]

The first reported case in the United States wherein evidence of blood grouping tests was received appears to be that of *Commonwealth v. Zammarelli*,[12] a bastardy proceeding which came before a Pennsylvania court in 1931. Blood grouping tests were made by consent of parties. After a proper foundation had been laid by expert testimony as to the scientific nature and reliability of such tests, the results obtained were testified to by defendant's medical expert to the effect that the blood of the prosecutrix was in group A, that of defen-

---

[9] State v. Damm, 62 S.D. 123; 252 N.W. 7 (1933).

[10] State v. Damm, 64 S.D. 309, 312; 266 N.W. 667, 668 (1936).

[11] Maguire, *A Survey of Blood Group Decisions & Legislation*, 16 SOU. CALIF. LAW REV. 161, 173 (1943).

[12] 17 Pa. D.C. 229 (1931).

dant in group O, and that of the child in group B, so that by the law of science, defendant could not possibly be the father of the child. Despite this evidence the trial judge sustained the jury's verdict of guilty. On appeal to the County Court this judgment was reversed and a new trial ordered upon the ground that the verdict was against the weight of the evidence. Here was an early recognition of the force and effect of this type of evidence, but it is to be noted that it was admitted only after foundation had been laid. No claim of judicial notice was advanced.

As late as 1936 the Pennsylvania Superior Court expressly refused to take judicial notice of the scientific reliability of blood grouping tests,[13] and such appears to have been the holding of state courts generally up to that year.

In January, 1936, a court of record in New York became the first American tribunal to take judicial notice of the scientific nature of blood grouping tests and of the natural laws applicable thereto.[14] This New York decision was soon followed in the same year by the dictum of the Supreme Court of South Dakota above quoted from the case of *State v. Damm*.[15] In 1937 the Court of Appeals of California, in a case hereinafter to be considered on other points, became the second court of record in the United States to hold that the scientific validity of blood grouping tests should be judicially recognized.[16] It thus appears that with the year 1936 courts in the United States began to open their eyes and their minds to the long established facts concerning blood grouping tests and the scientific laws related thereto. In explanation of this changed attitude it is significant to note that the most authoritative work on the subject in America was first published in 1935. Dr. A. S. Wiener's outstanding book, "Blood Groups and Blood Transfusions," undoubtedly contributed more than any other factor to this judicial enlightenment. Chapter 18 of that masterly work dealt specifically with medicolegal application of blood groupings, and served to dispel much of the inertia that so long obtained. Later editions have served to reinforce this effect.

The net result has been a growing recognition by American courts of the nature of blood groupings and the laws of inheritance that govern.[17]

Unfortunately, from time to time a discordant note has been sounded. Thus the Court of Appeals of Ohio in 1939 expressly rejected the view that the results of blood grouping tests "established an

---

[13] Com. v. English, 123 Pa. Super. 161; 186 Atl. 298 (1936).
[14] *In re* Swahn's Will, 158 Misc. Rep. 17; 285 N.Y. Supp. 234 (Jan. 27, 1936).
[15] *Supra*, note 10.
[16] Arias v. Kalensnikoff, 67 P.2d 1059 (1937).
[17] Beach v. Beach, *supra*, note 8.

immutable law of nature of which courts should take judicial notice." [18] This holding may be deemed rectified by a later decision of the Supreme Court of Ohio which in referring to the subject of blood grouping test evidence stated, "medical authorities agree on its accuracy and reliability to establish non-paternity in the great majority of cases." [19] It is to be noted that in 1939, shortly after the desision in the *Holod* case, the Ohio legislature enacted a statute, hereinafter referred to, providing for the admissibility of the results of blood grouping tests as evidence of non-paternity, and thus in effect requiring some degree of judicial recognition.

The hope that the question of judicial notice of blood grouping tests had been settled in American courts was upset by a decision of the Supreme Court of Iowa in 1949.[20] In a bastardy proceeding the defendant applied for an order to compel the parties to submit to blood grouping tests. There was no statute in Iowa on the subject, and the trial court denied the application. On appeal the Supreme Court sustained the lower court, holding no error had been committed, since the record showed no general scientific recognition of the value of the tests nor sufficient general acceptance for general scientific recognition as to be a matter of which the Court would take judicial notice. When an eminent court such as the Supreme Court of Iowa takes such a position at this late date, one cannot but view with uncertainty and dismay the course that may be followed by the large number of state courts which have yet to pass on this point. A settling of the matter by statute would seem to be called for.

Admissibility

The admissibility in a proper case of the results of blood grouping tests, either under judicial notice or after affirmative showing of scientific reliability and acceptance, may now be regarded as upheld in every American jurisdiction,[21] although there have been a few erratic decisions in the past. The Appellate Division of the Supreme Court of New York in 1934, in reversing a lower court's order requiring the plaintiff mother and her child to submit to blood grouping tests on the issue of defendant's paternity, bluntly said, "Plaintiff may submit or not to the taking of her own blood, but it plainly determines nothing." [22] This and similar rulings in other early New York cases were remedied by the enactment in New York in 1935 of the first

[18] State *ex rel. v.* Holod, 63 Ohio App. 16; 24 N.E. 2d 962 (1939).

[19] State *ex rel.* v. Clark, 144 Ohio St. 305; 58 N.E. 2d 773 (1944).

[20] Dale v. Buckingham, 241 Iowa 40; 40 N.W. 2d 45 (1949).

[21] 1948 Annual Survey of Am. Law, P. 899.

[22] Beuschel v. Manowitz, 241 App. Div. 888; 272 N.Y.S. 165 (1934).

statutory provision in this country making results of blood grouping tests admissible in evidence.

In Pennsylvania, where no statute covered the matter until 1951, the Superior Court of that State in 1943 sustained a lower court's refusal to admit any evidence of the scientific validity of results of blood grouping tests which were sought to be introduced in a bastardy proceeding to exclude defendant's paternity. To justify its ruling against this scientific evidence the Court indulged in the following extraordinary reasoning: "in such case the putative father would have everything to gain and nothing to lose by the test, while the mother would have everything to lose and nothing to gain by it."[23] In other words, justice must give way to fair play for the mother of a bastard.

As indicated, statutes now cover the matter in New York and Pennsylvania, and also in a number of other states. In a liberal opinion the Wisconsin Supreme Court went so far as to reverse a conviction in a bastardy case and to order a new trial where it appeared the blood grouping tests exonerating the defendant had been ruled out by the lower court for failure to meet certain technical requirements of the statute of that State.[24]

It can now be said that wherever the question has arisen within the past decade American courts have recognized the admissibility of such evidence when relevant.[25]

Blood grouping test evidence is deemed legally revelant and admissible on two broad issues:

1. *Parentage.* This issue may arise in a variety of cases, either of a civil or criminal nature. The most common are bastardy proceedings. Other types are divorce or annulment actions, prosecutions for non-support, proceedings to determine rights of inheritance, prosecutions for rape, seduction or assault where a child is claimed to have resulted from the wrongful act, proceedings to restore to their rightful parents babies interchanged, and even suits to obtain declaratory judgments. Relevancy of blood grouping test evidence in all such cases is predicated on the fact that it may exclude although it cannot prove parentage. This ruling results from the nature of blood groupings and types, and the natural laws by which they are inherited. Since it has been established that a child cannot possess agglutinogen A or B unless it was present in the blood of one or both parents, and since a parent of the AB group cannot have a child of the O group, and a group O parent cannot have a group AB child, it is possible by blood tests to determine, for example, that a defendant charged with being the father

[23] Com. v. Krutsick, 151 Pa. Super. Ct. 164; 30 A.2d 325 (1943).

[24] Euclide v. State, 231 Wis. 616; 286 N.W. 3 (1939).

[25] Cuneo v. Cuneo. 96 N.Y.S. 2d 899 (1950). State v. Snyder, 157 Ohio St. 15; 104 N.E. 2d 169 (1952).

of a particular child could not possibly have sired it. A similar set of natural laws applies with respect to the M-N and the Rh-Hr blood factors.[26] Paternity may thus be positively excluded by proper tests for any of these factors, and when exclusion is so shown, such fact is conclusive of the issue, according to the scientific view.

Where paternity is not thus excluded, this simply means that the defendant is merely one of the millions of men who could have fathered the child. In such cases the probative force and effect is deemed too slight to render the evidence admissible as tending affirmatively to establish paternity, especially when the natural result would be to mislead the jury and unduly to prejudice the defendant.[27]

The foregoing is but a summary of the general attitude of American courts on this point. It means that the man disclaiming paternity can introduce evidence of blood grouping tests which exclude the possibility of his paternity, while the mother cannot introduce evidence of tests which fail to exclude and show only the possibility of his paternity. A corollary to all of this is that the mother has no standing to demand blood grouping tests, for if they exclude the man's paternity, they are no part of her case; while if they do not exclude, the evidence is still inadmissible for the reason stated.[27a] In short, such evidence may be used as a shield but not as a sword, and usually only by the man.

A unique situation was presented in an Ohio case[28] where the court did permit a mother to resort to blood grouping test evidence in a bastardy proceeding. The prosecutrix was married at the time the child was conceived, but was subsequently divorced by her husband. She then instituted a bastardy proceeding against another man who she charged was the father of her illegitimate child. The defendant claimed that the child was the lawful offspring of the former husband. To rebut this charge the prosecutrix offered expert evidence of blood grouping tests of herself, her child, and her former husband, showing that the last named could not be the child's father. In holding this evidence to have been properly admitted the Court said: "She was charging another than her former husband with the paternity of her child, conceived while she was still married, and it was essential as a part of her case to exclude her former husband as the father." It is worthy of note that such was the Court's ruling in spite of the *fact that the case did not fall* under the Ohio statute making blood group-

[26] The first reported American case recognizing the scientific validity of the Rh-Hr test appears to be Saks v. Saks, 71 N.Y.S. 2d 797 (1947).

[27] Flippen v. Meinhold, 282 N.Y.S. 444 (1935).

[27a] State *ex rel.* v. Brigham, 72 S.D. 278; 33 N.W. 2d 285 (1948). State *ex rel.* v. Morris, 156 Ohio St. 333; 102 N.E. 2d 450 (1951). Roberts v. Van Cleave, 205 Okla. 319; 237 P.2d 892 (1951).

[28] State *ex rel.* v. Clark, 144 Ohio St. 305; 58 N.E. 2d 773 (1944).

ing tests receivable in evidence. That statute, like those of several states, was poorly drawn in that its scope was limited as shown by the opening language: "Whenever it shall be relevant to the defense in a bastardy proceeding the trial court, on motion of the defendant, shall order that the complainant, her child and the defendant submit to one or more blood grouping tests," etc. Although the statute did not here apply, the Court properly held the evidence admissible on general principles of relevancy on this collateral issue of paternity.

2. *Identity.* In his book, already referred to, Dr. Wiener adverts to the relevancy of this type of evidence on the issue of identity and as establishing a link in the chain of circumstantial evidence of guilt or innocence in a criminal case:

> "Blood grouping can be used to prove that a given blood stain could not have come from a certain individual, namely, when the blood stain is of a group different from that of the person from whom it is supposedly derived. On the other hand, the fact that the blood stain is of the same group as that of given individual is of course no proof that the blood came from that individual. Nevertheless, such information may be of value as confirmatory circumstantial evidence. . . . Hence, blood grouping tests may help not only to acquit the innocent but also to convict the guilty." [29]

Professor Maguire has well pointed out that there exists in American legislation a mistaken policy of restricting such evidence to filiation proceedings. He rightly insists that its use ought not to be confined to any particular tribunal or kind of litigation, but it should be admissible on issues other than parentage, "according to the general rules of courtroom logic," subject to any applicable exclusionary rules.[30]

Appellate courts in several states have adopted this broad policy. A leading recent case comes from the Court of Appeals of Maryland.[31] In a prosecution for rape the Court held admissible the testimony of an expert, based on blood grouping tests, that blood taken from the coat of the defendant could not have come from a third person as claimed by the defendant, but was of the same type as that of the victim and that found at the scene of the crime. This evidence was held relevant as tending to impeach defendant's testimony, to corroborate the prosecutrix and to support the inference of defendant's guilt. The Court emphasized the familiar rule that the objection as to remoteness went to the weight and not to the admissibility of such circumstantial evidence. The Maryland statute, like that of Ohio, applied

---

[29] Weiner, *Blood Groups and Blood Transfusions* (3d Ed.) p. 399 (1945).

[30] Maguire, *supra* note 11, P. 173.

[31] Shanks v. State, 185 Md. 640; 45 A.2d 85 (1945).

only to blood grouping tests "in bastardy proceedings where the defendant denies he is the father of the child." In answer to the contention that this statute limited the use of blood grouping tests to bastardy cases the Court said: "The Maryland statute does not purport to establish a universal rule of evidence, and has no application whatever in other classes of cases." In a later Maryland case[32] this holding was followed in a prosecution for murder wherein expert testimony as to blood grouping tests was admitted to show that the type of blood found on defendant's clothing was different from his own, but was the same as that of the victim. The opinion in the *Shanks* case is a comprehensive one. It surveys the history and nature of blood grouping tests, and reviews numerous cases decided in this country and abroad. The Court explicitly states that "blood types are now matters of common or ordinary knowledge," and thus affords judicial notice to the validity of such evidence.

At an earlier date the Supreme Court of Florida, in a murder case,[33] held admissible expert testimony as to blood grouping tests showing that blood found on defendant's trousers was not the same as that of defendant, but was the same as that of the victim. Florida had no statute relating to blood grouping tests.

In a quite recent case the Superior Court of Pennsylvania held admissible, in a prosecution for rape, evidence of blood grouping tests showing that blood stains on the seat of defendant's car and on the victim's jacket were of the same type as defendant's and different from that of the victim.[34]

No case has been found which denies the admissibility of blood grouping test evidence on the issue of identity where relevant. It thus appears that American courts, regardless of statute, have readily received such evidence as circumstantial proof of guilt in criminal cases. It would, of course, be equally available to the defendant in an appropriate case to establish his innocence.

Weight

The most controversial question that has arisen on this entire subject in American courts concerns the weight to be given to results of blood grouping tests disproving parentage, after they have been admitted in evidence.

One line of American authority treats such evidence simply as expert opinion to be weighed by the trier of fact together with all other

---

[32] Davis v. State, 189 Md. 640; 57 A.2d 289 (1948).

[33] Williams v. State, 143 Fla. 826; 197 So. 562 (1940).

[34] Com. v. Statti, 116 Pa. Super. 577; 73 A.2d 688 (1950).

evidence in the case. Until recent years this was regarded as the established American doctrine, despite strong adverse criticism by legal writers.[35]

Of late there has appeared a disposition on the part of a few appellate courts to follow the European view and to treat the results of such tests as conclusive where they exclude parentage, provided no valid question is raised as to their accuracy.

The leading case in support of the orthodox view is a decision by the Supreme Court of California in a case wherein the defendant was adjudged to be the father of plaintiff's illegitimate child, notwithstanding the fact that unimpeached blood grouping tests excluded paternity.[36] In reaching this result the Supreme Court overruled the intermediate Court of Appeals which had held such scientific evidence to be conclusive and to render nugatory all evidence offered by the mother. Thus the judgment of the trial court, holding that other evidence in the record was sufficient to overcome the scientific evidence and to establish defendant's paternity, was reinstated by the Supreme Court. The decision was adversely criticized throughout the country, but was adhered to when a few years later the same question arose in another case which attracted widespread attention because of the notoriety of the parties involved.[37] The Court here allowed to stand a judgment that one Charles Chaplin was the father of plaintiff's illegitimate child, even though blood grouping tests made by consent of parties excluded such a possibility. In a more recent case California has reaffirmed the holding in the Chaplin case.[38]

The appellate courts of Ohio are in accord with the California decisions. In a case hereinbefore cited on another point the Supreme Court of Ohio said the testimony of experts who made the blood grouping tests was "admissible for whatever weight it might be given in establishing" non-paternity, but was not conclusive evidence thereof.[39] This statement was in line with an earlier decision by the intermediate Court of Appeals of Ohio wherein it was expressly held that blood grouping test evidence was not conclusive, but was to be admitted on the same footing as other evidence for consideration by the jury, the Court saying: "The results of blood tests, by reason of their involved experimentation, have no greater claim to credibility than other evi-

[35] Maguire, *supra* note 11, P. 166. 39 CALIF. LAW REV. 279 (1951). 25 IA. LAW REV. 823 (1940). 163 A.L.R. 960 (1946).

[36] Arias v. Kalensnikoff, 10 Calif. 2d 428; 74 P.2d 1043 (1937).

[37] Berry v. Chaplin, 74 Calif. App. 2d 652; 169 P.2d 442 (1946). Petition for rehearing by Supreme Court denied, July 24, 1946.

[38] Hill v. Johnson, 102 Calif. App. 2d 94; 226 P.2d 655 (1951).

[39] State *ex rel.* v. Clark, *supra* note 19.

dence." [40] This decision also has been the subject of much adverse comment.[41]

One of the latest reported cases in the United States on the subject of blood grouping test evidence is that decided by the Supreme Court of New Hampshire on March 2, 1954.[42] This was a petition to vacate a decree annulling petitioner's marriage to the man she claimed was the father of her child. In the lower court blood grouping tests were made by consent of parties. The results of the tests satisfied the expert that paternity was excluded, and he so reported. On consideration of this and other oral evidence the trial court denied the petition and found in favor of the putative father on the issue of paternity. Since the exclusion rested alone on a test for the recently discovered blood factor S, as to which widespread genetic data has not yet been collected, the expert qualified his earlier report that paternity was excluded beyond a reasonable doubt by stating that it was his personal professional opinion that paternity was excluded by the S test, the evidentiary value of which he nevertheless asserted was greater than any other that might be made in this case. On appeal the Supreme Court of New Hampshire sustained the lower court. The opinion fully recognizes the admissibility and relevancy of blood grouping test evidence. The court took pains to point out that it was unnecessary to decide whether in this case such evidence should be deemed conclusive, but it did make the following significant observation: "In this respect the blood grouping tests were like other expert opinion evidence and entitled to such weight as the trial Court wished to give them." Whether the Court would hold the exclusionary results to be conclusive, or that they were made conclusive by a recent statute (hereinafter cited, and enacted after this case was decided), if those questions were being litigated, does not appear. On its face this dictum would seem to align New Hampshire with California and Ohio in the view that such evidence is not to be deemed conclusive, but is to be weighed with other evidence in the case.

It was not until 1949 that advocates of the rule of conclusiveness actually got support from a court of last resort, although many inferior courts are reported as regularly treating such evidence as conclusive where parentage has been excluded.[43] In a leading case[44] the Supreme Court of Maine handed down its much heralded opinion which in effect overruled a prior case and expressly held that a jury's finding of paternity contrary to the results of unimpeached blood grouping tests must be set aside. In the view of this Court the only

[40] State *ex rel.* v. Holod, *supra* note 18.

[41] Schatkin, *op. cit.* note 1, p. 242. 25 IA. LAW REV. 823 (1940).

[42] Groulx v. Groulx, 103 A.2d 188 (1954).

[43] Schatkin, *op. cit.* note 1, p. 238. Unger, 152 JOUR. AM. MED. ASSN., 1006 (1953).

[44] Jordan v. Mace, 144 Me. 351; 69 A.2d 670 (1949).

function of the jury where such evidence is introduced is to determine whether the tests have been properly made, and the jury will not be permitted to find against the tests excluding paternity when there is no believable evidence showing them to have been inaccurately performed. This decision was generally approved as marking a turning point in the long drawn out struggle for proper recognition of this form of scientific evidence.[45]

The only other state appellate court that has thus far expressed a concurring view is the Appellate Division of the Supreme Court of New York. While this is not a court of last resort, it does rank next to the Court of Appeals which is the highest court of that State. In 1950 the Appellate Division had before it an appeal in a bastardy case wherein the trial court had adjudged defendant to be the father of a child, despite evidence of results of two blood grouping tests definitely excluding his paternity. The trial court had ruled that such evidence was a mere expression of medical opinion entitled to no greater weight than is awarded opinion testimony generally. The Appellate Division reversed and ordered a new trial.[46] The opinion states that the basic question is what weight should be given to evidence of blood grouping tests excluding paternity. The Court pointed out that here the evidence of the tests consisted merely of the unsworn reports filed in the lower court without any supporting testimony as to their accuracy or as to the scientific basis for the indicated findings. After citing with approval the Maine case of *Jordan v. Mace* the Court said: "If, as appellant contends, it is a scientifically established and accepted fact that an exclusionary finding is conclusive as to non-paternity, it should be recognized and given effect. In such case the courts should accept the decisiveness of a non-paternity finding properly arrived at as it would accept the demonstrable fact that a mixture of blue and yellow colors will produce varying shades of green, but never a red color." The case was remanded for a new trial in order to afford the parties opportunity to introduce competent evidence on the accuracy of the tests and the scientific basis for their conclusiveness.

While this opinion was highly satisfactory to advocates of the doctrine of conclusiveness, it is indeed unfortunate that the Court should have gone so far as to indicate that it did not take judicial notice of the scientific bases for the conclusiveness of blood grouping tests excluding parentage. This latter feature of the opinion so disturbed one member of the Court that he filed a separate concurring opinion in an effort to set the matter right, as follows:

> "Courts may not ignore the universal scientific opinion that such tests, resulting in exclusion, are, in fact, conclusive on the issue of paternity.

[45] 39 CALIF. LAW REV. 280 (1951). 3 BOSTON UNIV. LAW REV. 444 (1950).

[46] Comm. v. Costonie, 97 N.Y.S. 2d 804 (1950).

. . . Such scientific exclusion, should, assuming the tests to have been competently and accurately made, be accepted by the trial court, notwithstanding the strength, as in this case, of the nonscientific testimony to the contrary. There should be no occasion for expert testimony in every case to prove the scientific validity of blood grouping tests resulting in exclusion of paternity. The scientific opinion on that point is so general that courts may take judicial notice of it in filiation proceedings."

With judicial authority so hopelessly divided on the vital question of the weight to be given evidence of blood grouping tests excluding parentage, it is pertinent to look to the opinions of the two professions, law and medicine, which are most directly involved. One would expect to find the medical profession championing the scientific viewpoint and insisting on the rule of conclusiveness. On the other hand, the legal profession might reasonably be expected to uphold the right of courts to administer the fact finding process without wholly surrendering to determinative laws claimed to be known to the scientists.

Here is to be found a strange paradox, for it is a representative group of the legal profession in the United States that argues for the rule of conclusiveness with respect to this type of evidence, while leaders of the medical profession seem to assert a contrary view.

For some years the Commissioners on Uniform State Laws, an important and highly esteemed body made up of outstanding members of the legal profession from each state, have been engaged in formulating a uniform statute on the subject of blood grouping tests to be recommended for adoption by all the states. After long and careful deliberations the Commissioners promulgated such a uniform act in 1952.[47] This proposed statute will be hereinafter more fully considered. The point here to be noted is that by section 4 of the uniform act results of blood grouping tests performed by court appointed experts are made conclusive when all the experts agree that parentage is excluded. The Commissioners preface the act with an explanatory statement wherein they undertake to justify this innovation, for such it is, since no state has as yet gone so far as to embody the rule of conclusiveness in its statute relating to blood grouping tests. In concluding their argument the Commissioners state:

"In this kind of situation it seems intolerable for a court to permit an opposite result to be reached when the judgment may scientifically be one of complete accuracy. For a court to permit the establishment of paternity in cases where it is scientifically impossible to arrive at that result would seem to be a great travesty on justice. . . . A statute upon the subject ought to take into account the situation of certainty and make the medical testimony final as against all other testimony when nonpaternity is scientifically proved." [48]

[47] 1952 HANDBOOK, NATL. CONF. COMM. ON UNIFORM STATE LAWS, P. 444.

[48] 1952 HANDBOOK, etc., *supra* note 47, p. 435.

This carefully considered statement by leaders of the American Bar, taken together with numerous articles in legal journals, discloses that the legal profession in the United States, as a whole, wants this type of evidence made conclusive.

In the same year, 1952, the American Medical Association's Committee on Medicolegal Problems published its report hereinbefore referred to.[49] That Committee was composed of three top ranking experts in the field, Dr. A. S. Wiener, Dr. Phillip Levine and Dr. Israel Davidsohn. In discussing the use of blood grouping tests in the courts the report states in part:

> "While the results of the blood tests are admissible when they exclude paternity, the findings are not binding on the courts. This is as it should be. It is the duty of the court to examine the evidence in order to convince itself that the tests have been properly carried out. . . . In divorce and separation actions the court often takes into account other considerations aside from the scientific results of the blood tests. To base decisions entirely on the results of the blood tests in such cases may harm an innocent third party by bastardizing the child. For this reason in a number of cases the court has refused to grant a divorce on the basis of blood tests alone."

While this quotation may be susceptible of a different interpretation, it was promptly seized upon by at least one court as a recognition by the medical profession of the indecisive character of blood grouping tests excluding parentage. The case was a bastardy proceeding which came before the Superior Court of New Jersey.[50] As stated by that Court the question was whether "the result of a blood grouping test disproving paternity was to be treated as a form of expert evidence not necessarily barring a finding of paternity contrary to the test result, or was it to be considered conclusive evidence of nonpaternity." In answering this question the Superior Court held that the blood grouping test negativing paternity was a fact scientifically established, as much so as that the "world is round," and as such it should be accepted by courts of law as final regardless of other evidence in the case. On appeal to the Appellate Division, which is a court ranking next to the Supreme Court of New Jersey, it was ruled that results of blood grouping tests excluding paternity were not conclusive.[51] The Court cited the report of the American Medical Association's Committee above referred to, and quoted the excerpt above set out with the following statement:

> "In view of the acknowledgment of the above mentioned possible exceptions, it cannot be said that the results of the blood grouping tests excluding paternity are conclusive."

---

[49] *Supra* note 6.

[50] Brown v. Marx, 21 N.J. Super. 95; 90 A.2d 545 (1952).

[51] Brown v. Marx, 24 N.J. Super. 25; 93 A.2d 597 (1952).

Although the Appellate Division sustained the lower court's judgment for the defendant, it did so upon the ground that other evidence in the case together with the medical testimony warranted the finding of nonpaternity.

This quick reaction to the report of the American Medical Association's Committee brought New Jersey into line with those jurisdictions opposed to the rule of conclusiveness.

It is worthy of note that another leading medical authority, Dr. L. J. Unger, makes a statement somewhat similar to that of the Committee, in an article on blood grouping tests published in 1953:

> "The tests may exclude paternity but can never prove it. While the results of an exclusion are admissible in evidence they are not necessarily binding on the court." [52]

It appears, therefore, that to the contrariety of judicial opinion there is to be added the oddly opposing views of the legal and medical professions on the question of policy with respect to this problem of weight. It is understandable, then, why there should be an increasing demand for legislation on the subject. How far legislative enactment may supply a solution will be considered in the next section.

LEGISLATION

By the year 1953 eleven states had enacted diverse statutes authorizing courts to order blood grouping tests and making the results admissible in evidence.[53] In addition, the Federal courts had been held to have like authority under rule 35(a) of the Rules of Civil Procedure.[54]

While it is not feasible to consider these statutes in detail, certain general observations should be made.

Most of the statutes purport to apply only to litigation involving the issue of parentage, and usually only to filiation proceedings. All provide that the tests may be had on court order, which provision was deemed necessary because from time to time some courts had held that under common law principles they could not order such tests without legislative authority. Even with legislative authority the constitutional question has been raised whether a person can be required to submit to blood grouping tests when the evidence thus derived might tend to incriminate him or violate other constitutional rights. Until quite recently it was fairly established that the constitutional protection against self-incrimination applies only to situations where one is made

[52] Unger, *supra* note 43.

[53] New York (1935), Wisconsin (1935), South Dakota (1939), New Jersey (1939), Ohio (1939), Maine (1939), Maryland (1941), North Carolina (1945), Pennsylvania (1951), Nevada (1951), and Indiana (1953).

[54] Beach v. Beach, *supra* note 8.

to give testimonial evidence against himself, and hence requiring the giving up of a drop of blood is not a violation of this or cognate constitutional guaranties.[55] Considerable doubt has now been raised on this point by a recent decision of the United States Supreme Court.[56] A majority of the Court, in reversing the Supreme Court of California, held it to be a denial of due process for a state court to admit in evidence in a prosecution for unlawful possession of narcotics, capsules forcibly extracted from defendant's stomach by use of a stomach pump. While the opinion purports not to condemn the "use of modern methods and devices for discovering wrongdoers," it does not specifically exempt from its proscription the forcible extraction of blood. It is significant that Justice Black concurred in the result upon the broad ground that the defendant had been compelled to furnish evidence against himself, saying, "I think a person is compelled to be a witness against himself not only when he is compelled to testify, but also when as here incriminating evidence is forcibly taken from him by a contrivance of modern science." Justice Jackson, also concurring in the result, was even more explicit in stating, "But I think that words taken from his lips, capsules taken from his stomach, blood taken from his veins are all inadmissible provided they are taken from him without his consent. They are inadmissible because of the command of the Fifth Amendment." If the full import of this decision is to be followed, then in a simple bastardy proceeding, although it is the putative father who consents to and usually demands the test, the mother may justifiably decline to give her blood, since a result disproving defendant's paternity might expose her to a prosecution for perjury. All the more so may a defendant in a criminal case refuse to submit to a test when it is sought by the state as circumstantial evidence of guilt. If this be the law, then under the American constitutional system statutes and court orders are ineffective to compel submission to blood grouping tests in many instances. Already this holding by the highest court in the land has given rise to a split in at least one state supreme court.[57]

In six of the eleven states listed the only statutory sanctions for enforcing court orders for blood grouping tests are provisions that refusal to submit to the test may, in the discretion of the court, be disclosed to the jury, and in Maryland may also be commented on in argument. The other five state statutes have no express provision on the subject. Whether the sanctions that are expressly provided are to be deemed exclusive, or whether a court's general power to compel compliance with its order by contempt proceedings or otherwise is to

[55] State v. Cram, 177 Ore. 576; 160 P.2d 283; 164 A.L.R. 952 (1945). Com. v. Statti, *supra* note 34.

[56] Rochin v. California, 342 U.S. 165, 72 S. Ct. 205 (1952).

[57] Block v. People, 125 Colo. 36; 240 P.2d 512 (1952).

be read into these statutes, is not altogether clear. In a Pennsylvania case which arose before any statutory enactment in that State, the Superior Court held that while a court might refuse to allow a bastardy case of a civil nature to proceed until the plaintiff mother submitted to the blood grouping test, such procedure could not be followed in a criminal prosecution, since there the state is the party plaintiff, and to stay or dismiss the proceedings because of a recalcitrant prosecutrix would defeat law enforcement.[58] In a recent New Jersey case the plaintiff mother sought a decree for support of herself and her child. The husband defended on the ground that he was not the child's father, and moved for an order compelling a blood grouping test, since plaintiff had refused to submit voluntarily. The trial court for some undisclosed reason denied the motion for the test, and the defendant appealed. The Appellate Division reversed the lower court, holding that the denial of defendant's motion for a blood grouping test was an abuse of discretion.[59] In answering plaintiff's contention that since the applicable New Jersey blood grouping test statute provided no sanction for refusal to submit to an order for the test, she was at liberty to refuse or consent as she saw fit, the Court held that the failure of the statute to set out sanctions reflected a legislative intent that the court in civil actions should have authority to enforce obedience to its orders "by appropriate and familiar sanctions." This would seem to be the law in civil proceedings and in any situation where constitutional protections are not violated by compelling the test. A mild sanction that may not do violence to the fundamental law is the one adopted in the six states allowing the fact of refusal to submit to a blood grouping test to be shown at the trial. Maguire advocates making one who refuses to submit to tests subject "to contempt process or other appropriate sanction, including nonsuit or default, continuance, and adverse comment to and inference by the trier of fact," [60] and this may well be read into the statutes, subject to constitutional limitations.

A common provision in these statutes is one making results of blood grouping tests admissible only where definite exclusion of parentage is shown. This follows the reasoning hereinbefore set out with respect to relevancy. However, two of the eleven states, North Carolina and South Dakota, have no such express limitation in their statutes. While there is no decision in point in North Carolina, it has been expressly held in South Dakota that even without such statutory limitations the putative father cannot be compelled to submit to blood grouping tests at the instance of the mother, since she could not intro-

[58] Com. v. English, 123 Pa. Super. 161; 186 A. 298 (1936).

[59] Cortese v. Cortese, 10 N.J. Super. 152; 76 A.2d 717 (1950).

[60] Maguire, *supra* note 11, p. 174.

duce the results in evidence as proof of paternity.[61] All authorities, both legal and medical, have long agreed that the science of blood grouping tests has not yet progressed to the point where it can affirmatively prove parentage.[62]

As earlier pointed out not one of these eleven statutes undertakes to make the results of blood grouping tests excluding parentage conclusive of that issue.

It now remains to consider the important statute promulgated in 1952 by the Commissioners on Uniform State Laws and officially known as the Uniform Act on Blood Tests to Determine Paternity. Backed as it is by high authority and prestige, it will have a marked influence on future legislation on the subject in the United States. Because of the important role it will play, and to facilitate reference to certain of its provisions, the pertinent text of the statute is here set out:

> Section 1. *Authority for Test.* In a civil action in which paternity is a relevant fact, the court, upon its own initiative or upon suggestion made by or on behalf of any person whose blood is involved may, or upon motion of any party to the action made at a time so as not to delay the proceedings unduly, shall order the mother, child and alleged father to submit to blood tests. If any party refuses to submit to such tests, the court may resolve the question of paternity against such party or enforce its order if the rights of others and the interests of justice so require.
>
> Section 2. *Selection of Experts.* The tests shall be made by experts qualified as examiners of blood types who shall be appointed by the Court. The experts shall be called by the court as witnesses to testify to their findings and shall be subject to cross-examination by the parties. Any party or person at whose suggestion the tests have been ordered may demand that other experts, qualified as examiners of blood types, perform independent tests under order of court, the results of which may be offered in evidence. The number and qualifications of such experts shall be determined by the court.
>
> Section 3. *Compensation of Expert Witnesses.* The compensation of each expert witness appointed by the court shall be fixed at a reasonable amount. It shall be paid as the court shall order. The court may order that it be paid by the parties in such proportions and at such times as it shall prescribe, or that the proportion of any party be paid by [insert name of the proper public authority], and that, after payment by the parties or [insert name of the public authority] or both, all or part or none of it to be taxed as costs in the action. The fee of an expert witness called by a party but not appointed by the court shall be paid by the party calling him but shall not be taxed as costs in the action.
>
> Section 4. *Effect of Test Results.* If the court find that the conclusions of all the experts, as disclosed by the evidence based upon the tests, are that the alleged father is not the father of the child, the question of paternity shall be resolved accordingly. If the experts disagree

---

[61] State *ex rel.* v. Brigham, 72 S.D. 278; 33 N.W. 2d 285 (1948).

[62] 1948 ANN. SURVEY, etc., *supra* note 21.

in their findings or conclusions, the question shall be submitted upon all the evidence. If the experts conclude that the blood tests show the possibility of the alleged father's paternity, admission of this evidence is within the discretion of the court, depending upon the infrequency of the blood type.

Section 5. *Effect on Presumption of Legitimacy.* The presumption of legitimacy of a child born during wedlock is overcome if the court finds that the conclusions of all the experts, as disclosed by the evidence based upon the tests, show that the husband is not the father of the child.

Section 6. *Applicability to Criminal Actions.* This act shall apply to criminal cases subject to the following limitations and provisions: (a) an order for the tests shall be made only upon application of a party or on the court's initiative; (b) the compensation of the experts shall be paid by [insert name of proper public authority] under order of court; (c) the court may direct a verdict of acquittal upon the conclusions of all the experts under the provisions of Section 4, otherwise the case shall be submitted for determination upon all the evidence.

During the year 1953 this Uniform Act was promptly enacted into law by the legislatures of California, Oregon and New Hampshire, with certain deletions in the two first-named states.

By its terms the Uniform Act applies to civil and criminal cases "in which paternity is a relevant fact." In line with authority hereinbefore cited this should not be taken to preclude the introduction of such evidence where relevant on the issue of identity.

Sanctions provided include authority to resolve the question of paternity against the refusing party, and also the general power of the court to enforce its order by contempt proceedings "if the rights of others and the interests of justice so require." This sweeping power may well raise the constitutional questions posed by the decision of the Supreme Court of the United States above referred to.[63]

One of the most striking innovations in the Uniform Act is found in the last sentence of section 4 which reads as follows: "If the experts conclude that the blood tests show the possibility of the alleged father's paternity, admission of this evidence is within the discretion of the court, depending upon the infrequency of the blood type." This provision is supported by no legislative, scientific or appellate court authority in the United States, as the Commissioners frankly admit.[64] Their decision to permit the introduction of such evidence, in the discretion of the courts, is predicated upon the idea that with the advancement of scientific knowledge in this area rare blood types or factors have been or may be discovered which if found in the blood of a child and of its putative father may be relevant as circumstantial evidence of paternity. The trouble with this view would seem to be that it is running ahead of scientific opinion. The 1952 report of the American

[63] Rochin v. California, *supra* note 56.

[64] 1952 HANDBOOK, etc., *supra* note 47, p. 431.

Medical Association's Committee[65] emphatically states: "Since the tests can be used only to exclude paternity and cannot be used to prove paternity, to avoid misunderstanding the tests should be admissible as evidence only where they exclude paternity." How conservative and guarded are leading scientists in this field with regard to the use of this type of evidence is strikingly brought out in the very recent New Hampshire cases above cited.[66] From the Court's opinion it appears that Dr. Wiener had remonstrated with the expert in that case who had reported a positive exclusion of paternity based on a test for the newly discovered and rare S blood factor. As a result of Dr. Wiener's protest, this expert modified his statement considerably. If a test for this rare blood factor is an insecure basis for a scientist's opinion excluding paternity, it would seem to be all the more unreliable as a basis for lay opinion in finding paternity. It is significant that the legislature of California in adopting the Uniform Act last year took pains to omit the last sentence of section 4.[67] However, this provision is now law in Oregon and New Hampshire, and in fairness it must be said that Schatkin reports three cases in trial courts in New York where evidence of certain extremely rare blood factors in the blood of the child and of the putative father was admitted as circumstantial evidence of paternity.[68] In none of those cases was the admissibility of such evidence actually litigated.

The remaining and vital innovation in the Uniform Act is found in the first sentence of section 4, which provides that if the court finds the conclusions of all the experts, as disclosed by the evidence based upon the tests, to be in agreement in excluding paternity, the issue shall be resolved accordingly. This legislative fiat goes even further than the holding in *Jordan v. Mace*,[69] in that if all the experts agree in their conclusions excluding paternity, by this statute the court must so find, even though on cross-examination or otherwise facts be brought out which discredit the accuracy of the tests. In such circumstances even *Jordan v. Mace* would permit the jury to pass on the accuracy of the tests and find against them. By the Uniform Act the agreement of the experts is made final, and they are made the triers of fact.

An even more serious difficulty is thus involved. Under the American constitutional doctrines of the separation of powers, the judicial department of government is vested with authority inherent in the judicial process to determine controverted issues of fact arising in

---

[65] *Supra*, note 6.

[66] Groulx v. Groulx, *supra* note 42.

[67] CALIF. CODE CIV. PRO., Sec. 1980.6.

[68] Schatkin, *op. cit.* note 1, p. 496, 497.

[69] *Supra* note 44.

litigation. This is fortified by the express constitutional guaranty of right of trial by jury, that is, the right of a litigant to have such issues of fact passed upon by a jury functioning under direction of the judiciary. This means that it is beyond the province of the legislative department to decree findings of fact. A brief statement of this recognized principle is set forth in a leading authority, as follows:

> "Statutes which declare one fact conclusive evidence of another material fact in controversy are unconstitutional if the former is not, in and of itself, by virtue of its own force, conclusive. This rule although frequently applied in criminal cases, is not limited to such cases but applies to civil cases as well. Such statutes violate the due process clause of the Constitution." [70]

The late Dean Wigmore has stated the same rule in his authoritative work on the law of Evidence in the following words:

> "It is one thing for the Judiciary, while exercising in its own way its constitutional powers, to choose to accept the aid of an official certificate in reaching its determination, but it is quite a different thing for the Judiciary to be forbidden altogether to exercise its power in a certain class of cases. The judicial function under the Constitution is to apply the law in controverted cases; to apply the law necessarily involves the investigation of evidence as a basis for that determination. To forbid investigation is to forbid the exercise of an indestructible judicial function. Hence, to make a rule of conclusive evidence, compulsory upon the Judiciary, is to attempt an infringement upon their exclusive province." [71]

It is recognized, of course, that within reasonable bounds the legislature may make proof of one fact *prima facie* or presumptive evidence of another fact, and thus shift the burden of going forward with evidence to one party or the other. This is but a procedural device, and court procedure is in large degree a subject of legislative regulation. Furthermore, some such statutes may be sustained when in effect they are but altering or laying down a rule of substantive law.

But it is an entirely different matter when the legislature undertakes to say to a judicial tribunal that in deciding a disputed issue of fact in litigation it must accept testimony of designated witnesses as conclusive proof of such fact. If this can be done, then the legislature has arrogated to itself one of the basic functions of a court. Under the American constitutional system such usurpation is not allowed.

No one will dispute the propriety and desirability of courts treating unimpeached and accredited scientific evidence as conclusive proof of the facts established according to recognized natural laws, but this is a matter for judicial determination and not for legislative edict, according to fundamental principles of American constitutional law. If

[70] 20 AM. JUR. III, EVIDENCE, Sec. 10.

[71] IV WIGMORE ON EVIDENCE, 3d Ed., Sec. 1353 (1940).

the legislature can compel a court to accept the testimony of an expert or set of experts on a particular fact as conclusively establishing such fact, then the court ceases to be a fact finding tribunal.

This is a question which the Commissioners failed to consider in their prefatory note. That it calls for consideration is shown by the authorities above quoted and by the numerous cases cited by them which have held unconstitutional statutes undertaking to do just what the Uniform Act at this point seeks to do.

By established American constitutional principles if the rule of conclusiveness of blood grouping test evidence excluding paternity is to be adopted, this must be accomplished by judicial decision and not by legislative enactment. This calls for education of the judiciary, and carries us back to Dean Pound's eminently sound proposal cited at the beginning of this paper. If scientific evidence is to make real progress in American courts, there must be made available to our courts an authoritative source of scientific knowledge.