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No guideline has been established for determining when a person is a chronic alcoholic.⁶³ It is not clear what constitutes a symptom of alcoholism. Would driving by an alcoholic while intoxicated be a symptom?⁶⁴ Would an alcoholic's stealing in order to satisfy his insatiable desire to consume alcohol be a symptom?⁶⁵ Despite these and other unanswered questions, *Hinnant* brings the criminal law a step closer to a true reflection of the values of our civilization.

ROBERT H. POWELL, III

BLOOD GROUPING TEST RESULTS: EVIDENTIAL FACT OR CONCLUSION OF LAW?

When a husband petitioning for divorce on the ground of adultery alleges that he is not the father of a child born to his wife during their marriage, he usually finds himself confronted by a rule of evidence founded on the presumption of legitimacy,¹ a "policy presumption"² which is not easily surmounted.³ The considerations

81; Pinardi, *supra* note 58; Rubington, *The Chronic Drunkenness Offender*, 315 *Annals* 65, 66-67 (1958); Weil & Price, *Alcoholism in a Metropolis*, 9 *Crime & Delinquency* 60, 60-61 (1963); 111 *U. Pa. L. Rev.* 122, 127-28 (1962).

⁶³Washington Post, April 1, 1966, § A, p. 1, col. 1; Washington Post, April 1, 1966, § A, p. 6, col. 3.

⁶⁴Brief for Appellee, p. 23, *Easter v. District of Columbia*, 361 F.2d 50 (D.C. Cir. 1966).

The early indications are that it will not be treated as a symptom. Washington Post, April 15, 1966, § B, p. 1, col. 4.

⁶⁵Brief for Appellee, *supra* note 64. The early indications are that it will be treated as a symptom. Washington Post, April 15, 1966, § A, p. 1, col. 2.

¹In most cases this policy presumption would be considered a rule of law and be conclusive. 9 *Wigmore, Evidence* § 2492 (3d ed. 1940). But see *infra* note 5. Some authors have been quite critical of such policy presumptions when the evidence factually refutes the presumption. *E.g.*,

Presumptions of law or fact arise from incidents in which the courts do not know what actually happened and for reasons of social discipline and policy have assumed a non-existent fact from a known existing fact [W]hen the ignorance of their inception is cleared away by the discovery of science or experience, we should discard them and proceed along the newly lighted course. These presumptions of law often amount to a license to do wrong. The use of scientific proof will curb this legal encouragement of illegality [A]fter a method has been conclusively verified, we should not be bound by presumptions in the face of it.

29 *Iowa L. Rev.* 121, 123-24 (1943).

²"When a child X is born to a wife A married to a husband B, it is natural to infer that the intercourse which begot the child was the intercourse of the husband B, *i.e.*, that the *child is legitimate*." 1 *Wigmore, Evidence* § 163 (3d ed. 1940).

³McCormick states that "it is universally agreed that in the case of this

behind this rule seek to protect children born during a legal marriage from the stigma of illegitimacy;⁴ courts have deferred to this policy by making proof of such illegitimacy difficult.⁵ A strict adherence to this policy can result in a declaration that a man is legally the father of a child when in fact he is not.⁶ A further injustice may occur when a divorce is not granted because the adultery would bastardize a child. Aid in the prevention of such injustice was realized upon the discovery and medical acceptance of blood grouping tests to determine nonpaternity.⁷ Such tests are usually acknowledged to be competent evidence only if they exclude paternity.⁸

Blood grouping test results are material and relevant evidence in both adultery-divorce and paternity proceedings. Where such evidence is admissible in divorce proceedings, it will usually involve a risk of bastardization. However, such a risk will rarely be involved in a paternity suit, because the woman involved is usually not married. In a paternity suit not involving a married woman, thus not involving the risk of bastardization, the only basis for not regarding evidence of blood grouping test results as conclusive is the possible unreliability of those results; when the woman involved is married, hence the risk of bastardization is involved, the presumption of legitimacy is a further basis for exclusion of such evidence. The courts have had less difficulty and been readier to admit such evidence when the risk of bastardization is not involved.

The Supreme Court of Nebraska held 4-3 in *Houghton v. Houghton*⁹ that competently administered tests excluding the husband as the

presumption, the adversary contending for illegitimacy does have the burden [of persuasion] . . . usually measured not by the normal standard for civil cases . . . but rather by the requirement of clear, convincing, and satisfactory proof . . . or even by the criminal formula, beyond a reasonable doubt." McCormick, Evidence § 309, at 646-47 (1954).

⁴*Houghton v. Houghton*, 179 Neb. 275, 137 N.W.2d 861, 872-73 (1965) (dissenting opinion); McCormick, Evidence § 309 (1954).

⁵"Presumptions have often developed into rules of substantive law. Here, however, the course of evolution has been from a rule of substantive law into a rebuttable presumption. But the strictness of an older day when if the husband was not beyond the four seas, the child was conclusively assumed to be his, lingers in modified form." McCormick, Evidence § 309 n.31, at 646 (1954).

⁶*Bullock v. Knox*, 96 Ala. 195, 11 So. 339 (1892).

⁷See generally Gradwohl, *Legal Medicine* 524 (1954).

⁸*Id.* at 534.

⁹179 Neb. 275, 137 N.W.2d 861 (1965). All 3 dissenting judges were opposed to permitting the blood test results to determine paternity conclusively. *Id.* at 872. The only 1 who gave his reasons thought legislation necessary to make blood grouping tests conclusive of paternity. *Id.* at 874. Since no dissenter questioned the propriety of taking judicial notice of the accuracy of such test

father of a child conceived during marriage provide conclusive evidence of nonpaternity, thereby overcoming the presumption of legitimacy. The Supreme Court's reversal granting the appellant husband a divorce on the ground of adultery was based solely on evidence of paternity-excluding blood test results.¹⁰

The wife had previously filed for divorce on the ground of extreme cruelty. Nine months later she filed a supplemental petition alleging that she had become pregnant due to the resumption of marital relations with her husband and once again sued for divorce on the ground of cruelty. The husband's amended answer and cross-petition admitted having relations with her, but denied any relations until after the time during which she claimed to have become pregnant. He cross-petitioned for a divorce on the ground of adultery. The child was born 7½ months after the date of the husband's admitted intercourse and was fully developed at birth. The trial court found the husband to be the father of the child and granted the wife an absolute divorce. The husband's motion for a new trial was denied and he appealed, alleging error in the trial court's failure to find that the results of the blood tests excluding his paternity were conclusive and overcame the presumption of the child's legitimacy. The Supreme Court of Nebraska reversed, stating in the syllabus, "In the absence of evidence of a defect in the testing methods, blood grouping tests are conclusive on the issue of nonpaternity."¹¹ In the court's opinion the results of the tests proved as a matter of law that the wife had committed adultery.¹²

The doctrine of the presumption of legitimacy—a child born to a married woman during wedlock is *prima facie* legitimate—arose under early English common law.¹³ The presumption was due to fear among the nobility of disinheritance.¹⁴ Early in the common law this presumption became conclusive unless the husband seeking to bastardize the child could prove either that he was beyond the "four seas" at all times during the relevant gestation period,¹⁵ or that he was under some physical disability.¹⁶ Physical disability was shown if the hus-

results, the only basis for not admitting evidence of these results would be policy considerations implicit in the presumption of legitimacy.

¹⁰*Id.* at 870.

¹¹*Id.* at 863.

¹²*Id.* at 870.

¹³Banbury Peerage Case, 1 Sim. & St. 153, 57 Eng. Rep. 62 (1811).

¹⁴Wright v. Hicks, 12 Ga. 155, 159 (1852).

¹⁵Regina v. Murrey, 1 Salk 122, 91 Eng. Rep. 115 (1704); Rex. Albertson, 1 Ld. Raym. 396, 91 Eng. Rep. 1163 (1698).

¹⁶Rolle's Abridgment of the Common Law reports that castration was con-

band was impotent, sterile, or prepubescent.¹⁷ Gradually the rule of the "four seas" was eroded¹⁸ as the courts began allowing the husband to show other evidence of nonaccess.¹⁹ Thus even if he was within the "four seas," he was allowed to show that the necessary access for him to be the father of the child was lacking.²⁰ A means of overcoming the presumption of legitimacy other than nonaccess was acknowledged when evidence that the child was of a different color from the putative parents, or, as it was quaintly put, "the child was against the laws of nature," was permitted.²¹ All of these means of overcoming the presumption evolved because courts recognized that it would be impossible under the circumstances for the husband to be the father.²²

The presumption of legitimacy caused considerable confusion in the United States as to the quantum of proof necessary to overcome it.²³ Analytically it is a problem of the quantum of proof necessary

sidered such a physical disability. See *Done & Egerton v. Hinton & Starky*, Roll. Abr. 358, pl. 8 (Eng. 1617), cited in 3 Eng. & Emp. Dig. 402, n.39 (repl. vol. 1960).

¹⁷Schatkin, *Disputed Paternity Proceedings* 20 (3d ed. 1953).

¹⁸*Pendrell v. Pendrell*, 2 Str. 925, 93 Eng. Rep. 945 (1732).

¹⁹Wigmore, *Evidence* § 134 (3d ed. 1940).

²⁰*Banbury Peerage Case*, *supra* note 15.

²¹Lord Campbell stated that "so strong is the legal presumption of legitimacy that, in the case of a white woman having a mulatto child, although the husband is also white, & the supposed paramour black, the child is presumed legitimate, if there was an opportunity for intercourse." *Piers v. Piers*, 13 Jur. 569, 572 (Eng. 1849) (dictum), cited in 3 Eng. & Emp. Dig. 399, n.15 (repl. vol. 1960).

In this country it has been held that such a birth would be against the laws of nature and thus the presumption is overcome. *Bullock v. Knox*, *supra* note 6.

²²Schatkin, *supra* note 17, at 20.

²³E.g., *Arkansas*: *Morrison v. Nicks*, 211 Ark. 261, 200 S.W.2d 100 (1947), the clearest evidence; *Florida*: *Eldridge v. Eldridge*, 153 Fla. 873, 16 So. 2d 163 (1944), evidence sufficiently strong to remove the presumption; *Illinois*: *People v. Powers*, 340 Ill. App. 201, 91 N.E.2d 637 (1950), strong and compelling evidence; *Indiana*: *Duke v. Duke*, 134 Ind. App. 172, 185 N.E.2d 478 (1962), clear evidence; *Kentucky*: *Ousley v. Ousley*, 261 S.W.2d 817 (Ky. 1953), higher degree of evidence than necessary to convict of a minor criminal offense; *Massachusetts*: *Commonwealth v. Stappen*, 336 Mass. 174, 143 N.E.2d 221 (1957), proof beyond all reasonable doubt; *Missouri*: *Ash v. Modern Sand & Gravel Co.*, 234 Mo. App. 1195, 122 S.W.2d 45 (1938), not overcome unless no judicial escape from doing so; *Nebraska*: *Zutavern v. Zutavern*, 155 Neb. 395, 52 N.W.2d 254 (1952), clear and convincing evidence; *Ohio*: *Ashley v. Ashley*, 118 Ohio App. 155, 193 N.E.2d 535 (1962), clear and convincing evidence; *Pennsylvania*: *Commonwealth v. Kerr*, 150 Pa. Super. 598, 29 A.2d 340 (1942), competent proof beyond a reasonable doubt; *Wisconsin*: *Schmidt v. Schmidt*, 21 Wis. 2d 433, 124 N.W.2d 569 (1963), clear and satisfactory preponderance of the evidence.

to satisfy the burden of persuasion placed upon the party attempting to bastardize the child.²⁴ The Model Code of Evidence states:

Whenever it is established in an action that a child was born to a woman while she was the lawful wife of a specified man, the party asserting the illegitimacy of the child has the burden of producing evidence and the burden of persuading the trier of fact *beyond a reasonable doubt* [as in criminal cases] that the man was not the father of the child.²⁵

In other words, to bastardize, it is necessary to prove beyond a reasonable doubt the impossibility of the putative paternity.²⁶

The question now is whether courts will regard scientific blood grouping tests as another method of showing impossibility of paternity. When the scientific facts derived from blood grouping tests first became available, courts were reluctant to receive these facts in evidence, probably because of a lack of understanding of the scientific procedure involved and a desire to avoid change.²⁷

In some states the courts have understood and accepted the value of these tests as a factual exclusion of paternity and have taken judicial notice of their accuracy.²⁸ These states acknowledged that the results of blood grouping tests were receiving universal approval as an exclusion of paternity among scientists knowledgeable in pathology.²⁹ The courts recognized that by continuing to disregard the test results, which were considered scientifically accurate,³⁰ they

²⁴McCormick, Evidence § 309, at 646-47 (1954).

²⁵Model Code of Evidence rule 703 (1942). (Emphasis added.)

²⁶This is easily understood because of the desire to keep a child legitimate. This social policy is so strong in some states that the child is declared legitimate even if the marriage is determined to be void. *E.g.*, La. Civ. Code Ann. art. 118 (West 1959); W. Va. Code Ann. § 4086 (1961).

²⁷In *State ex rel. Slovak v. Holod*, 63 Ohio App. 16, 24 N.E.2d 962 (1939), the court went to great lengths to avoid giving such test results conclusive weight despite the fact that *State v. Wright*, 59 Ohio App. 191, 17 N.E.2d 428 (1938), had affirmed a trial judge who granted a new trial when the verdict named the defendant the father despite test results excluding paternity.

²⁸"[J]udicial notice is one of the first hurdles a scientific test or experiment must overcome in order to simplify methods of proof, and eventually achieve the weight to which it is entitled." Richardson *Modern Scientific Evidence*, § 12.17, at 338 (1961).

Some courts have taken judicial notice of the accuracy and reliability of blood tests in the absence of statute. *E.g.*, *Beach v. Beach*, 114 F.2d 479 (D.C. Cir. 1940); *Cortese v. Cortese*, 10 N.J. Super. 152, 76 A.2d 717 (Super Ct. App. Div. 1950); *State v. Damm*, 64 S.D. 309, 266 N.W. 667 (1936) (dictum).

²⁹*E.g.*, Commissioner *ex rel. Tyler v. Costonie*, 277 App. Div. 90, N.Y.S.2d 804, 806 (1950) (concurring opinion).

³⁰*E.g.*, *Retzer v. Retzer*, 161 A.2d 469, 471 (Munic. Ct. App. D.C. 1960).

would be ignoring new means of proof, which would result in decisions contrary to those produced by the older policy.³¹ Reliability of such tests may be proved, of course, by judicial notice through resort to sources of indisputable accuracy.³²

In other states statutes make the test results admissible evidence. Some statutes permit the test results in evidence only in bastardy proceedings;³³ others permit them in both bastardy and divorce proceedings.³⁴ Those states denying the admission of the test results in divorce proceedings appear to have attached more importance to the policy against making a child illegitimate than to the policy against requiring a man to support a child not his own.

A majority of the states with statutes on this subject hold that the test results are admissible only if they exclude the man as father of the child.³⁵ In this respect the experts agree that the test results are

³¹*E.g.*, *Beach v. Beach*, *supra* note 28.

³²McCormick, *Evidence* § 325, at 691-92 (1954).

³³*Alabama*: Ala. Code tit. 27, § 12(5) (Supp. 1963) in conjunction with *Mason v. Mason*, 276 Ala. 265, 160 So. 2d 881 (1964); *Arkansas*: Ark. Stat. Ann. § 34-705.1 (repl. vol. 1962); *California*: Cal. Civ. Proc. Code § 1980.6; *District of Columbia*: D.C. Code Ann. § 16-2347 (Supp. V 1966); *Louisiana*: *Williams v. Williams*, 230 La. 1, 87 So. 2d 707 (1956), has held that in a divorce proceeding the husband is not entitled to prove adultery by means of blood test results; *Maryland*: Md. Ann. Code art. 16, § 66G (Supp. 1965); *Rhode Island*: R.I. Gen. Laws Ann. § 15-8-13 (1956); *West Virginia*: W.Va. Code Ann. § 4776(1) (1961).

³⁴*Colorado*: Colo. Rev. Stat. Ann. § 52-1-27 (perm. supp. 1960); *Connecticut*: Conn. Gen. Stat. Ann. § 52-184 (1958); *Illinois*: Ill. Ann. Stat. ch. 106¾, § 5 (Smith-Hurd Supp. 1965); *Indiana*: Ind. Ann. Stat. § 3-658 (Supp. 1965); *Maine*: Me. Rev. Stat. Ann. tit. 19, § 262 (1964); *Massachusetts*: Mass. Ann. Laws ch. 273, § 12A (1956); *Mississippi*: Miss. Code Ann. § 383-08 (Supp. 1964); *Nevada*: Nev. Rev. Stat. § 56.020 (1951); *New Hampshire*: N.H. Rev. Stat. Ann. § 522:1 (1955); *New Jersey*: N.J. Stat. Ann. § 2A:83-2 (1952); *New York*: N.Y. Family Ct. Act § 532; *North Carolina*: N.C. Gen. Stat. § 8-50.1 (Supp. 1965); *Ohio*: Ohio Rev. Code Ann. § 2317.47 (Baldwin 1964); *Oregon*: Ore. Rev. Stat. § 109.250 (1953); *Pennsylvania*: Pa. Stat. Ann. tit. 28, § 307.1 (Supp. 1965); *Tennessee*: Tenn. Code Ann. § 24-716 (Supp. 1965); *Wisconsin*: Wis. Stat. § 325.23 (1963).

³⁵*Alabama*: Ala. Code tit. 27, § 12(5) (Supp. 1963); *Arkansas*: Ark. Stat. Ann. § 34-705.1 (repl. vol. 1962); *Colorado*: Colo. Rev. Stat. Ann. § 52-1-27 (perm. supp. 1960); *District of Columbia*: D.C. Code Ann. § 16-2347 (Supp. V 1966); *Connecticut*: Conn. Gen. Stat. Ann. § 52-184 (1958); *Indiana*: Ind. Ann. Stat. § 2-658 (Supp. 1965); *Maine*: Me. Rev. Stat. Ann. tit. 19, § 262 (1964); *Maryland*: Md. Ann. Code art. 16, § 66G (Supp. 1965); *Massachusetts*: Mass. Ann. Laws ch. 273, § 12A (1956); *Nevada*: Nev. Rev. Stat. § 56.020 (1951); *New Jersey*: N.J. Stat. Ann. 2A:83-2 (1952); *New York*: N.Y. Family Ct. Act § 532; *Ohio*: Ohio Rev. Code Ann. § 2317.47 (Baldwin 1964); *Rhode Island*: R.I. Gen. Laws Ann. § 15-8-13 (1956); *Tennessee*: Tenn. Code Ann. § 24-716 (Supp. 1965); *West Virginia*: W.Va. Code Ann. § 4776 (1) (1961); *Wisconsin*: Wis. Stat. § 325.23 (1963).

conclusive only in excluding the putative father.³⁶ The results might show him to have a blood type which the father of the child must have had; but this only indicates that of all the people of that blood type or group, he, as well as anyone else with that blood type or group, *could* have been the father of the child.³⁷ (There is some authority for the opinion that as new types and groups are discovered and the information concerning them is made available, it will be possible eventually for positive statistical probability proof of paternity to be made.)³⁸ The states which have adopted the Uniform Act on Blood Tests to Determine Paternity³⁹ permit admission of the test results even if they do not exclude the putative father when the types and groups of the parties involved are rare.⁴⁰ In Alabama the statute does not admit results if the experts disagree upon the findings or conclusions,⁴¹ while those states which have adopted the Uniform Act allow the trier of facts to consider all the facts including the test results and determine the paternity question if the experts disagree.⁴²

Medical experts agree that blood groups never change during lifetime, and that by the laws of genetics it is indisputable that no individual can possess a blood group factor which is absent in both of his true parents.⁴³ Therefore when the blood types of the mother and child are known, medical experts can determine scientifically what the blood type of the father may be and what it cannot be.⁴⁴ The medical profession does not claim that the tests are infallible even if correctly administered, but instead admits that there are theoretical exceptions—one in approximately every 50,000 to 100,000 cases.⁴⁵ Such exceptions, however, are of little importance when it is considered that when “tests are accurately performed there is hardly any other evidence that can approach in reliability the conclusions based on

³⁶Davidsohn, Levine, Wiener, *Medicolegal Application of Blood Grouping Tests*, 149 A.M.A.J. 699, 703 (1952).

³⁷McCormick, *Evidence* § 178, at 382 (1954).

³⁸Wiener, *Parentage and Blood Groups*, 191 *Scientific American* 78, 79 (July 1954).

³⁹Uniform Laws Ann. 102 (1952).

⁴⁰Uniform Act on Blood Tests to Determine Paternity § 4 (1952).

⁴¹*Alabama*: Ala. Code tit. 27, § 12(5) (Supp. 1963).

⁴²*California*: Cal. Civ. Proc. Code § 1980.6; *Illinois*: Ill. Ann. Stat. ch. 106½, § 4 (Smith-Hurd Supp. 1965); *New Hampshire*: N.H. Rev. Stat. Ann. § 522:4 (1955); *Oregon*: Ore. Rev. Stat. § 109.258 (1953); *Pennsylvania*: Pa. Stat. Ann. tit. 28, § 307.6 (Supp. 1965).

⁴³Allen, Diamond, Jones, *Medicolegal Applications of Blood Grouping*, 251 *New England J. Medicine* 146 (1954).

⁴⁴Gradwohl, *supra* note 7, at 546 (1954).

⁴⁵Davidsohn, *supra* note 36, at 702; Ross, *cf. The Value of Blood Tests as Evidence in Paternity Cases*, 71 *Harv. L. Rev.* 466, 468 (1958).

such blood tests.”⁴⁶ By considering the results of all of the tests which are readily performable, the probabilities are one in one hundred billion that such an exception will occur.⁴⁷

In 1952 the American Medical Association Committee on Medico-legal Problems recommended judicial acceptance of blood test evidence of nonpaternity as a substitution of scientific fact for opinion.⁴⁸ According to its report, in tests upon families with a total of over 25,000 children, tests of the A-B-O groups revealed no exceptions to the expected results which could not be explained either by laboratory error or by a case of illegitimacy.⁴⁹ The Committee’s report stated:

The theory of multiple alleles⁵⁰ leads to the following laws:

1. The agglutinogens A and B *cannot* appear in the blood of a person unless they are present in the blood of one or both of his parents.
2. A parent with blood of group AB *cannot* have a child with blood of group O, and a parent of group O *cannot* have a child of group AB.⁵¹

In tests which were completed upon families with a total of over 10,000 children using the M-N type for identification, the Committee

⁴⁶Davidsohn, *supra* note 36, at 702.

⁴⁷See, Ross, *The Value of Blood Tests as Evidence in Paternity Cases*, 71 Harv. L. Rev. 466, 468 (1958).

This conservative estimate is based on information obtained on the A-B-O, M-N and Rh-hr tests.

⁴⁸Schatkin, *supra* note 17, at 185.

⁴⁹Davidsohn, *supra* note 36, at 702.

⁵⁰Alleles is the term applied to members of a pair of contrasting genes. Sets of alleles may contain more than two members and such sets are called multiple alleles. Snyder & David, *Heredity* ch. 13, at 174 (5th ed. 1957).

⁵¹Davidsohn, *supra* note 36, at 702. (Emphasis added.) See the following chart for example.

MEDICO-LEGAL ASPECTS

BLOOD GROUP OF CHILD	BLOOD GROUP OF MOTHER	BLOOD GROUP TO WHICH FATHER CANNOT BELONG**
O	O	AB
O	A	AB
O	B	AB
A	O	O, B
A	B	O, B
B	O	O, A
B	A	O, A
AB	A	O, A
AB	B	O, B
AB	AB	O

**Snyder & Davis, *Heredity* 183 (5th ed. 1957).

reported that there were no exceptions to the predicted results which could not be explained by cases of illegitimacy.⁵² The Committee reported that

according to the generally accepted theory, the M-N types are inherited by a pair of allelic genes M and N. . . . The theory leads to the following two laws: 1. Agglutinogens M and N *cannot* appear in the blood of a person unless they are present in the blood of one or both of his parents. 2. A parent with blood of type M *cannot* have a child with blood of type N, and a parent with type N blood *cannot* have a child with type M blood.⁵³

Use of the Rh-hr blood types in studies on families with a total of over 5,000 children revealed no exceptions to the theory that could not be explained by cases of illegitimacy.⁵⁴ The report stated:

For practical purposes the consequences of the genetic theory can be summarized in the following laws: 1. Blood properties Rho, rh', rh'', hr', and hr'' *cannot* appear in the blood of a person unless they are present in the blood of one or both his parents. 2. A parent who is rh'-negative (cc) *cannot* have an hr'-negative (CC) child; nor can an hr'-negative (CC) parent have an rh'-negative (cc) child. 3. A parent who is rh''-negative (ee) *cannot* have an hr''-negative (EE) child; nor can an hr''-negative (EE) parent have an rh''-negative (ee) child.⁵⁵

As a result of these studies, in cases where a man is falsely accused of paternity, proof of nonpaternity by the A-B-O, M-N, and Rh-hr tests can at present be expected to result in exoneration of over 50% of those accused.⁵⁶

⁵²Davidsohn, *supra* note 36, at 702.

⁵³*Ibid.* (Emphasis added.) See the following chart for example.

MEDICO-LEGAL APPLICATION OF THE BLOOD TYPES

TYPE OF CHILD	TYPE OF MOTHER	TYPE TO WHICH FATHER CANNOT BELONG**
M	M	N
M	MN	N
N	N	M
N	MN	M
MN	M	M
MN	N	N

**Schatkin, *supra* note 17, at 170.

⁵⁴Davidsohn, *supra* note 36, at 703.

⁵⁵*Ibid.* (Emphasis added.) See Schatkin, *supra* note 17, at 171-92c, for full discussion of all the complexities.

⁵⁶McCormick, Evidence § 178, at 380 (1954); Richardson, Modern Scientific

When the legal profession does accept the test as positively excluding paternity, the problem of the weight to be given the test results arises. Some courts hold that paternity—excluding test results should be weighed equally with other evidence by the trier of fact.⁵⁷ This position has been strongly attacked:

In contested divorce actions . . . judges apparently prefer to accept the testimony of the wife rather than the objective blood test findings, so that in courts of this country . . . not much progress has been made away from the law of the 'four seas' . . .

When a court refuses to dissolve or annul a marriage of two completely incompatible people, even though there is scientific proof of the wife's deceit or fraud . . . the court would not appear to be carrying out its responsibilities as an administrator of justice.⁵⁸

Consideration of the blood test results equally with other evidence has also been called judicial blindness to the advances of science.⁵⁹ Medical experts and legal writers have also attacked the position of those courts which consider the testimony of the expert who administers and interprets the results of the blood tests to be on the same evidentiary level as regular expert testimony concerning hypothetical situations.⁶⁰ Unlike the testimony of the usual expert, the blood grouping expert deals with nonhypothetical facts of the case at hand. One medicolegal authority states that "the pathologist whose report excludes paternity is not giving 'opinion' evidence, . . . [but is] testifying to a fact of life and Nature."⁶¹

The testimony of the parties in a paternity proceeding is seldom highly credible. There is an understandable self-serving interest on the part of each party which makes his testimony subject to doubt.⁶² The fact that the medical expert testifying in the case is a disinterested

Evidence § 12.3, at 324 (1961); Schatkin, *supra* note 17, at 206; Sussman, Blood Grouping Tests in Disputed Paternity Proceedings, 155 A.M.A.J. 1143 (1954); Davidsohn, *supra* note 36, at 702; Allen, *supra* note 43.

⁵⁷E.g., Groulx v. Groulx, 98 N.H. 481, 103 A.2d 188 (1954); Ross v. Marx, 24 N.J. Super. 25, 93 A.2d 597 (1952); State *ex rel.* Steiger v. Gray, 76 Ohio L. Abs. 393, 145 N.E.2d 162 (Juv. Ct. 1957).

⁵⁸124 A.M.A.J. 776 (1944).

⁵⁹Beck v. Beck, 153 Colo. 90, 384 P.2d 731 (1963); Prochnow v. Prochnow, 274 Wis. 491, 80 N.W.2d 278, 285 (1957) (dissenting opinion).

⁶⁰Denton, *Blood Groups and Disputed Parentage*, 27 Can. B. Rev. 537, 547-48 (1949).

⁶¹Gradwohl, *supra* note 7, at 576 (1954).

⁶²State *ex rel.* Steiger v. Gray, *supra* note 57, at 165.

Chapter IX of Schatkin, *supra* note 17, describes a number of cases in which the complaining female changed her testimony when faced with the blood test results. Unfortunately these are for the most part unreported cases.

third person should make his testimony more credible than that of the parties.

Where test results show that the husband could not possibly have been the father of his wife's child, the only question remaining for determination by the trier of fact is whether the tests were properly conducted. This involves the procedures in administering the blood tests, the qualifications of the persons testing the blood and interpreting the test. Authorities on legal medicine agree on the qualifications necessary for those who administer the tests and the general procedures to be followed. The tests must be carried out and interpreted by an expert. For some authorities this means having a pathologist or serologist,⁶³ not a medical technologist. However, there is no reason why a medical technologist cannot qualify as an expert in making such tests, leaving the pathologist or serologist as the interpreting expert. *Houghton* acknowledged that technicians were competent to perform the tests under ordinary circumstances impliedly because of the extensive education now required to become a medical technician.⁶⁴

Authorities also stipulate steps which should be followed in performing the tests and feel that in addition to the necessity of fresh⁶⁵ and properly labeled⁶⁶ blood specimens, the expert should at all times have a large panel of persons of representative blood groups and types available from among whom he can obtain blood samples. These serve as positive and negative controls of the various antibodies employed⁶⁷ so that the reactions of known blood types can be compared with the test specimens. The results of the control tests are to be included in the final report.⁶⁸ The main test should be completely carried out for the A-B groups, the M-N types, and the Rh-hr types,⁶⁹ and the final report should contain the intermediate results for all tests performed.⁷⁰ Additional tests may be performed by equally qualified colleagues of the expert performing the tests,⁷¹ thereby increasing the

⁶³Denton, *supra* note 60, at 547; Richardson, *supra* note 56, § 12.15 citing Denton's article; Schatkin, *supra* note 17, at 203; Sussman, *supra* note 56; Davidsohn, *supra* note 36, at 704.

⁶⁴*Houghton v. Houghton*, *supra* note 9, at 866.

⁶⁵Sussman, *supra* note 56.

⁶⁶*Ibid.*; Denton, *supra* note 60, at 548.

⁶⁷Davidsohn, *supra* note 36, at 704.

⁶⁸*Ibid.*

⁶⁹Schatkin, *supra* note 17, at 203.

⁷⁰Denton, *supra* note 60, at 548.

⁷¹*Ibid.*; Sussman, *supra* note 56, at 1144.

credibility of the results. Some states permit the court to require that tests be made by more than 1 expert.⁷²

There has been some difference of opinion concerning the various sera to be used—some writers require the expert to make the serum himself,⁷³ while others allow the use of commercially prepared serum.⁷⁴ Those requiring the expert to prepare his own serum feel that in this way he best acquires the experience needed for such precise work.⁷⁵

The only areas in which the results of blood grouping tests should be open to attack are in the method of testing or in the qualifications of the persons performing the tests. In the event of error in one of the aspects of the tests, the jury may be permitted to determine from the evidence what effect such error will have on the evidentiary weight to be afforded such test results.⁷⁶ A mere questioning of the methods or persons employed should not be sufficient to allow the jury to determine such weight; there should be evidence that there was something materially wrong, e.g., failure to keep the test specimens in a place inaccessible to interested persons.⁷⁷ A better solution in case of doubt is to recess the court or continue the case to allow further testing.⁷⁸ The evidence in such a situation is constant because the blood types of the parties involved will never change.

Competently administered blood grouping tests which exclude paternity should be considered conclusive as a matter of law.⁷⁹ Once the results excluding paternity are no longer challenged, impossibility of paternity comparable to the common law nonaccess has been shown. When the courts recognize that the scientific results are much

⁷²*California*: Cal. Civ. Proc. Code § 1980.4; *Maine*: Me. Rev. Stat. Ann. tit. 19, § 262 (1964); *Mississippi*: Miss. Code Ann. § 383-09 (Supp. 1964); *New Hampshire*: N.H. Rev. Stat. Ann. § 522:2 (1955); *New Jersey*: N.J. Stat. Ann. § 2A:83-2 (1952); *Ohio*: Ohio Rev. Code Ann. § 2317.47 (1964); *Oregon*: Ore. Rev. Stat. § 109.254 (1953); *Pennsylvania*: Pa. Stat. Ann. tit. 28, § 307.1 (Supp. 1965); *Tennessee*: Tenn. Code Ann. § 24-716 (Supp. 1965); *Wisconsin*: Wis. Stat. § 52.36(1) (1963).

⁷³Davidsohn, *supra* note 36, at 699.

⁷⁴*Ibid.*

⁷⁵Davidsohn, *supra* note 36, at 699.

⁷⁶Commissioner *ex rel.* Tyler v. Costonie, *supra* note 29, at 805 (1950).

⁷⁷Denton, *supra* note 60, at 548.

⁷⁸25 Iowa L. Rev. 823, 825 (1940).

⁷⁹Uniform Act on Blood Tests to Determine Paternity § 5 (1952).

The A.M.A. Committee did not recommend that the courts be bound by the test results when they excluded paternity. Davidsohn, *supra* note 36, at 703. Richardson says this is due to a "deference to the judicial process rather than any lack of faith in the test." Richardson, *Modern Scientific Evidence* § 12.12, n.34 (1961).