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George H. Jr. Dickerson

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## CRIMINAL LAW CASE NOTES AND COMMENTS

Prepared by students of Northwestern University School of Law, under the direction of student members of the Law School's Legal Publications Board.  
Grant F. Watson, *Criminal Law Editor*

### Admissibility of Blood Test Results to Show Possibility of Source

The Maryland Court of Appeals, affirming a death sentence conviction for rape in the case of *Shanks v. State*,<sup>1</sup> held there was no error in admitting results of blood tests which showed not only definite exclusion (as in paternity cases),<sup>2</sup> but also a mere possibility of inclusion.

Appellant was arrested at his home after the police were notified that he had been seen in the vicinity of the crime. The prosecuting witness identified him as her assailant. At the time of the arrest a bloodstained overcoat was found in his room. The motorman of the streetcar which had taken him home that morning testified that the accused had had blood on his coat and that his face was scratched. He offered as explanation of the presence of blood on his coat the fact that he had been in a fight with another girl. A state toxicologist, concededly qualified, made tests of the blood samples available and introduced as evidence the following facts:<sup>3</sup>

Blood from coat of accused	—Group O
Blood from the third person with whom he fought	—Group A
Blood from prosecuting witness	—Group O
Blood from the snow at the scene of the assault	—Group O

A brief summary of the scientific background of blood groups may be helpful here.<sup>4</sup> Human blood is composed of the fluid called plasma and the red blood cells. In the red cells are two substances called agglutinogens A and B. By their presence or absence, all human blood can be classified into four groups<sup>5</sup> as follows:

Group O Possessing neither A nor B	—45% of the population
Group A Possessing A only	—42% of the population
Group B Possessing B only	—10% of the population
Group AB Possessing both A and B	—3% of the population

One should bear in mind that everyone's blood group remains constant throughout life (and may even be ascertained after death) regardless of age, disease, medication, or any other factor.

<sup>1</sup>—Md.—, 45 A. (2d) 85 (1945).

<sup>2</sup> In such cases blood tests may show either that the alleged parent could not be such or that he might be. Only the former evidence (exclusion) is held admissible.

<sup>3</sup> There was no sample of accused's blood available. Apparently the accused felt such evidence would not help his case, and the prosecution felt that the court might hold it inadmissible due to the privilege against self-incrimination. It is doubtful whether the taking of a drop of blood is properly considered to be self-incrimination. See Muehlberger and Inbau, *The Scientific and Legal Application of Blood Grouping Tests*, 27 J. Crim. L. and Criminology 578 (1936).

<sup>4</sup> For a more extended discussion see: Schatkin, *Disputed Paternity Proceedings* (1944), Chap. 4; Wigmore, *Evidence* (3d Ed. 1940), §165 (b); Muehlberger and Inbau, *supra* note 3; Davidsohn, *The Medico-legal Application of Blood Grouping Tests*, 31 J. Crim. L. and Criminology 643 (1940). (The first two contain extensive bibliographies.)

<sup>5</sup> There is a concurrent but independent classification possible known as blood *types*, based upon the more recently discovered agglutinogens M and N. These occur in three combinations only, since there cannot be absence of both. Thus, by use of both group and type, more combinations are possible with a consequent smaller proportion in each classification.

Blood grouping tests have been used as evidence in paternity proceedings since discovery of the laws of inheritance of blood groups. Briefly, an agglutinin cannot appear in the blood of a child unless it was present in the blood of at least one parent. Thus, if neither the mother nor the alleged father have the agglutinin found to be present in the baby's blood, there is definite proof, scientifically conclusive, that the alleged man is not the father, but rather that some one else having the required blood group is. The results of such tests are universally accepted by the medical and scientific world.<sup>6</sup> By judicial decision in most states and by statute in some the use of such evidence is limited to instances of definite exclusion.<sup>7</sup> Proof of inclusion or mere possibility of paternity is always held inadmissible because of its possible prejudicial effect.<sup>8</sup>

In this case, the results of the tests showed the blood on the accused's coat to be of group O while that of the girl whose blood he claimed it was to be of group A. He had explained the presence of this blood as caused by a fight with this girl. Like the exclusion in paternity cases, the blood could not have come from her since it was of a different group. Such evidence, of positive probative value, would probably be admissible everywhere to disprove an explanatory statement of the accused.<sup>9</sup>

The greater difficulty comes as to the question of admissibility of the further tests showing that the blood of the prosecuting witness, the blood on her clothes, and that on the snow in the immediate vicinity of the rape were all of group O, the same as the blood on defendant's coat. If the blood groups had been different, that fact would have excluded her as a source, and would have been admissible as was the evidence to exclude the girl with whom the accused had fought. But here the groups are the same. This can prove no more than a mere possibility that the blood on the coat came from the victim, since 45% of the people have O group blood.

To be admissible, circumstantial evidence must be logically relevant, that is, it must have some probative value.<sup>10</sup> Or, to put it another way, the inference desired must be in human experience fairly capable of belief as possible or probable.<sup>11</sup> Although some courts require that the desired inference be the most probable one,<sup>12</sup> most courts merely require that it be a possible one. Evidence should not be admitted if it is irrelevant. And, admitting relevancy, it should still be excluded, if the probative value is slight, and if the information is apt to receive undue weight in the minds of the jury.

Analyzing the evidence in this case, we find one item of strong testimonial evidence — the identification of accused by the prosecuting witness; and three instances of circumstantial evidence: a) presence of the

<sup>6</sup> Despite this, judicial decision has not been unanimous in granting such evidence decisive weight. For an excellent criticism of such an opinion see: Wiener, *The Judicial Weight of Blood Grouping Test Results*, 31 J. Crim. L. and Criminology 523 (1940); also see note, 31 J. Crim. L. and Criminology 525 (1940). Cf. note, *id.* at 128.

<sup>7</sup> See Schatkin, *Disputed Paternity Proceedings* (1944) Chap. 5, for an extensive review of both the decisions and the statutes.

<sup>8</sup> Muehlberger and Inbau, *supra* note 3 at 592. See cases under note 19.

<sup>9</sup> Wigmore shows that only four processes are possible as to inductive proof: (1) Assertion of a fact and a desired inference; (2) Opponent's explanation showing other more probable hypotheses; (3) Opponent's denial of the offered fact; (4) Opponent's offer of a new fact, such as an alibi, with its rival inference. Wigmore, *The Science of Judicial Proof* (2d Ed. 1937) Chap. II.

<sup>10</sup> Wigmore, *Evidence*, (3d Ed. 1940) §9.

<sup>11</sup> Wigmore, *Evidence*, (3d Ed. 1940) §38.

<sup>12</sup> *Engel v. United Traction Co.*, 203 N.Y. 321, 96 N.E. 731 (1911).

accused in the vicinity of the rape a short time after its occurrence, b) the presence of blood on his coat, and c) the fact that this blood was of the same group as that of the victim. No one of these pieces of circumstantial evidence, standing alone, would support the conviction, but each of them tend to support the testimonial identification. Presence of the accused in proximity in space and time with the crime proves only a *possibility* of guilt and is capable of being explained away.<sup>13</sup> The presence of blood on his coat supports an inference that he was involved in some action wherein someone was injured sufficiently to bleed. This merely shows a possibility that the action was the rape of this prosecuting witness. Accused attempted an explanation which was disproved in part by the evidence that this blood could not have come from the person from whom he claimed it did.<sup>14</sup> The showing that the blood on the coat was of group O narrowed the possibilities of its source. In other words, the inference now became that accused had been involved in some action with a person of O group blood. The fact that the blood of the rape victim was of this same type supports the further inference that the victim *may* have been the person with whom the accused had been involved in a bloody action which in turn infers that he raped her. Since this evidence is a link in a chain of inductive inferences, it is logically relevant.

All these inferences follow of course only in the absence of other explanation. The jury should take notice of the general possibility of other explanations. Failure to successfully explain tends to make the connection of a more probable one.

As has been pointed out, where the probative value is slight, evidence which is concededly relevant may still be excluded in order to prevent effects disadvantageous to a fair trial of the accused. Among these undesirable results are the risks of confusion of issues, unfair surprise, and undue prejudice.<sup>15</sup> Thus, it becomes the judge's duty in passing on the admissibility of the evidence (*i.e.* deciding whether it is worth going to the jury) to require a higher degree of probative value than would be required by logic or ordinary reasoning.<sup>16</sup> On the other hand, this standard of admissibility is far less than that of full proof — the weight, or final persuasive effect, is left to the decision of the jury.<sup>17</sup>

Since this evidence of the blood group of the victim is of slight probative value only (possible explanatory sources being 45% of the people) it should not have been admitted if any of the dangers above mentioned are present. There is little likelihood of the confusion of issues since the result itself of a blood test performed by qualified persons can not become the subject of controversy. If there is any doubt similar tests can be run by other qualified persons. The same results will occur. It is not a matter to be decided by a preponderance of "expert opinion" such as handwriting. A proven chemical reaction is more of a fact than an opinion. Of course, the tests should only be conducted by those clinically qualified and under adequate safeguards. Prominent writers in this field have expressed fear of prejudicial inferences by the jury if such evidence is admitted where it can only prove a mere possibility.<sup>18</sup> At least two cases<sup>19</sup> have expressly so held and many others have so stated as dicta. By undue prejudice is meant a likelihood of

<sup>13</sup> See Note 9 (2).

<sup>14</sup> See Note 9. A possibly distinct fifth process is the assertion by the original proponent of a new fact to negate the explanation offered by the opponent, thereby corroborating the original assertion.

<sup>15</sup> Wigmore, Evidence (3d Ed. 1940) §1904.

<sup>16</sup> Wigmore, Evidence (3d Ed. 1940) §28.

<sup>17</sup> Wigmore, Evidence (3d Ed. 1940) §29.

<sup>18</sup> Flacks, The Evidential Value of Blood Tests, 1 U. of Chi. L. Rev. 798 at 800 (1934); Muehlberger and Inbau, *supra* note 3 at 592.

stimulating an excessive emotion, awakening a fixed prejudice, or of *seeming too important in the minds of the jury.*

The likelihood of prejudice is the reason for the rule excluding evidence of bad moral character.<sup>20</sup> But if accused first puts his good character in issue, the evidence of bad character is then admissible in spite of its possible prejudicial effect. In this case admission of the blood test evidence which showed a mere possibility may be explained on this basis. Accused had offered another explanation of the source; the state refuted his explanation by the exclusionary blood tests, and then proceeded to introduce the inclusionary tests as evidence. Even if this situation makes such evidence admissible, any exception to the exclusion of prejudicial evidence should be strictly limited. The general admission of prejudicial evidence would prevent fair trials, as the jury will attach undue importance to this scientific information and accept it as proof when in reality it is merely an indication of possibility.

Since 1901, when the late Dr. Karl Landsteiner reported his discovery of the four blood groups, there has been an abundance of medical and legal articles published and a number of judicial decisions handed down involving the question of admissibility of blood grouping tests as evidence.<sup>21</sup> The classification as to blood groups of all members of the Army and Navy and the wide use of blood banks in recent years brought the matter to the attention of the general public. Perhaps, as the court points out,<sup>22</sup> blood groups may now be matters of common knowledge. But it should be remembered that our most noted sociologists agree that scientific knowledge is far in advance of the public awareness of its significance. The very multiplicity of facts that crowd in upon the layman serves to confuse him more. His knowledge, therefore, is as superficial and uncoordinated as it is diversified. He does not understand science — all he knows is that science has produced the miraculous sulfas and penicillin and now the world has been terrified by the discovery of atomic power. As a consequence, science has become to him a magic power. He feels that science can do anything. Why, then, with this feeling prevalent among the people who make up our juries should we expect our jurists to become suddenly cognizant of the true worth of scientific facts which may be more or less pertinent to the cases presented to them? It is conceivable that an innocent person might be convicted because blood on his suit coincided in type with that of the victim of a crime. That coincidence is not enough in itself to convict a man. But a jury, overly impressed with a misconception of the value of scientific facts, may be misled and hand down verdicts that are unjust.

Where scientific evidence is offered by admitted experts, there is a tendency by the jury to be overwhelmed by the conclusiveness of the scientific proof and be misled into attaching greater significance to this evidence than the scientist intended. In order that scientific proof may maintain its rightful position as conclusive evidence where it is conclusive on the issue, it would be best for courts not to admit such evidence to show a mere possibility (except when called for in answer to an explanation of accused) until the time when jurors (laymen) are sufficiently educated in the principles of logic and sufficiently trained in emotional control to comprehend the true value of such evidence and infer no greater significance than it logically deserves.

*George H. Dickerson, Jr.*

<sup>19</sup> *Flippen v. Meinhold*, 282 N.Y.S. 444 (1935); Appeal of Ketcham, 4 N.Y.S. (2d) 786 (1938).

<sup>20</sup> Wigmore, *Evidence* (3d Ed. 1940) §55.

<sup>21</sup> See Note 4 for reference to bibliographies.

<sup>22</sup> 45 A. (2d) 85 at 90.