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## Evidence - Validity of Statutory Presumption of Intoxication from a Finding of 0.15 Percent Concentration of Alcohol in the Blood

Donald F. Oosterhouse S.Ed.  
*University of Michigan Law School*

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EVIDENCE—VALIDITY OF STATUTORY PRESUMPTION OF INTOXICATION FROM A FINDING OF 0.15 PERCENT CONCENTRATION OF ALCOHOL IN THE BLOOD—Defendant was tried and convicted of the statutory crime of driving an automobile while under the influence of intoxicating liquor. The state introduced into evidence the result of a blood test, voluntarily submitted to by the defendant, which showed 0.20% concentration of alcohol in the defendant's blood. Arizona statutes<sup>1</sup> established a rebuttable presumption of no intoxication if such tests showed a concentration of 0.05%, or less, of alcohol in one's blood, and of intoxication if the tests showed a concentration of 0.15%, or more. Breath, urine, and direct blood tests are authorized by the statute. Defendant argued that the statute creating these presumptions was unconstitutional under the Arizona and Federal Constitutions. *Held*, conviction affirmed. The presumptions are valid because there is a rational, logical connection between the stated percentage of alcohol in the blood and intoxication. *State v. Childress*, (Ariz. 1954) 274 P. (2d) 333.

Statutes making it a crime to drive while under the influence of intoxicating liquor are common. Establishing that the driver was under the influence of liquor, however, is seldom simple. Testimony by eyewitnesses is the traditional, but not very accurate, way.<sup>2</sup> A number of chemical tests have been developed which measure the degree of intoxication by measuring the amounts of alcohol in various body fluids such as blood and urine, and breath. The theory of the chemical tests is that, while individuals vary in the amount of alcohol required to intoxicate them, virtually all individuals will be intoxicated when their blood contains 0.15% or more alcohol by weight. This amount can be measured directly from a blood sample or calculated indirectly from measurements of alcohol in the urine or breath.<sup>3</sup> The use of the results of these tests as evidence runs the gamut from creation of a statutory presumption of intoxication on proof

<sup>1</sup> Ariz. Code Ann. (Supp. 1952) §66-156, authorizes use of blood, urine, and breath tests and establishes the presumption.

<sup>2</sup> Because there are some sixty pathological conditions which may produce symptoms similar to the symptoms of intoxication, observation and conclusions by laymen cannot be expected to be accurate. See DONIGAN, CHEMICAL TEST CASE LAW 2 (1950).

<sup>3</sup> Harger, Lamb and Hulpieu, "A Rapid Chemical Test for Intoxication Employing Breath," 110 J.A.M.A. 779 (1938).

of 0.15% concentration<sup>4</sup> to complete inadmissibility.<sup>5</sup> A scientific test, to be admissible in evidence at all, must be generally accepted as accurate by the community or by the special occupation using it.<sup>6</sup> The principal case is the first in which the constitutionality of the presumption of intoxication was challenged before a state supreme court. The test for federal constitutionality of an evidentiary presumption has been laid down by the United States Supreme Court: there must be some "rational connection between the fact proved and the ultimate fact presumed, and . . . the inference of one fact from proof of another shall not be so unreasonable as to be a purely arbitrary mandate."<sup>7</sup>

The critical question then is the existence of a rational connection between 0.15% concentration of alcohol in the blood, and intoxication. Medical writers are not opposed to the admission in evidence of the results of the blood test nor to its use with a statutory presumption of intoxication; but respecting use of the breath test not all are in accord.<sup>8</sup> While most medical writers who discuss these tests think the breath test is reliable,<sup>9</sup> at least two, Gray<sup>10</sup> and Rabinowitch,<sup>11</sup> vigorously dissent. There is, however, rebuttal to Rabinowitch: "With the exception of the very few cases where obvious mistakes had been made there was nothing that would confirm the many possible errors and variables pointed out by Rabinowitch."<sup>12</sup> A Swedish study on the effect of alcohol ingestion on driving ability indicates that the statute in the principal case is perhaps too easy on the drinking driver;<sup>13</sup> the study showed that driving ability began to be

<sup>4</sup> Fourteen states have statutes similar to that in the principal case: Arizona, Indiana, Maine, Nebraska, New Hampshire, New York, North Dakota, Oregon, South Carolina, South Dakota, Tennessee, Utah, Washington, and Wisconsin.

<sup>5</sup> *People v. Morse*, 325 Mich. 270, 38 N.W. (2d) 322 (1949), excluded the breath test results. Michigan trial courts do admit results of direct blood tests. Forty-two states admit evidence of the results of some chemical test, according to NATIONAL SAFETY COUNCIL, REPORT OF COMMITTEE FOR TESTS FOR INTOXICATION (1952).

<sup>6</sup> 3 WIGMORE, EVIDENCE, 3d ed., §795 (1940).

<sup>7</sup> *Mobile J. & K. C. R. Co. v. Turnipseed*, 219 U.S. 35 at 43, 31 S.Ct. 136 (1910).

<sup>8</sup> See the discussion on admissibility of the results of chemical tests in 51 MICH. L. REV. 72 (1952).

<sup>9</sup> Harger, Lamb and Hulpieu, "A Rapid Chemical Test for Intoxication Employing Breath," 110 J.A.M.A. 779 (1938); Harger, "'Debunking' The Drunkometer," 40 J. CRIM. LAW & CRIMINOLOGY 497 (1949); Ladd and Gibson, "The Medico-Legal Aspects of the Blood Test To Determine Intoxication," 24 IOWA L. REV. 191 (1939); SOLLMAN, A MANUAL OF PHARMACOLOGY, 7th ed., 620 (1948). See also "The Compulsory Use of Chemical Tests for Alcoholic Intoxication—A Symposium," 14 MD. L. REV. 111 (1954).

<sup>10</sup> 1 GRAY, ATTORNEYS' TEXTBOOK OF MEDICINE 625 (1949).

<sup>11</sup> Rabinowitch, "Medicolegal Aspects of Chemical Tests of Alcoholic Intoxication," 39 J. CRIM. LAW & CRIMINOLOGY 225 (1948).

<sup>12</sup> Merkeley, "Blood Alcohol Levels and Intoxication," 64 CANADIAN MED. J. 507 at 509 (1951). See also Smith and Popham, "Blood Alcohol Levels in Relation to Driving," 65 CANADIAN MED. J. 327 (1951).

<sup>13</sup> Bjerver and Goldberg, "Effect of Alcohol Ingestion on Driving Ability—Results of Practical Road Tests and Laboratory Tests," 11 Q.J. OF STUDIES ON ALCOHOL 1 (1950). This same article reports that Swedish criminal law provides one punishment for driving with 0.15% concentration of alcohol in the blood and a lesser punishment for driving with 0.08% concentration. See SOLLMAN, A MANUAL OF PHARMACOLOGY, 7th ed., 620 (1948),

impaired at an alcohol concentration between 0.035% and 0.04%. A concentration of 0.05% impaired driving ability no less than 3.3% in any driver and as much as 71.8% in others.

Thus it seems there is overwhelming evidence of a rational connection between a 0.15% concentration of alcohol in the blood and intoxication; the principal case is correct in upholding the presumption.<sup>14</sup> The need for using chemical tests to prove intoxication is clear, for other methods of proving it are not accurate.<sup>15</sup> If alcohol concentration in the blood is a proper fact from which to presume intoxication where a statute so provides, a fortiori, alcohol concentration should be admissible without a statute simply as relevant evidence to show intoxication or freedom from it.<sup>16</sup> There is also a rational connection between the concentration of alcohol in the breath that corresponds to 0.15% concentration in the blood, and intoxication; so the breath test should also be upheld. It is undoubtedly more convenient to administer than the blood test. It is likely that courts increasingly will allow the results of the test to be used in evidence provided a proper foundation is laid by a clear showing of the theory underlying the test, of medical acceptance of the test's reliability, and of careful administration of the test in the particular instance.

*Donald F. Oosterhouse, S.Ed.*

where it is said that judgment is impaired by a concentration of one-tenth that of the generally accepted intoxication level of 0.15%.

<sup>14</sup> 23 TENN. L. REV. 178 (1954). For a discussion of other constitutional questions arising from use in evidence of chemical tests for intoxication, see 51 MICH. L. REV. 72 (1952).

<sup>15</sup> See note 2 *supra*.

<sup>16</sup> *Spitler v. State*, 221 Ind. 107, 46 N.E. (2d) 591 (1943); *Toms v. State*, 95 Okla. Cr. 60, 239 P. (2d) 812 (1952); *People v. Frederick*, 109 Cal. App. (2d) 897, 241 P. (2d) 1039 (1952).