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STATE OF CONNECTICUT *v.* CHARLES PILOTTI
(AC 26220)

Bishop, Gruendel and Rogers, Js.

Argued October 10, 2006—officially released February 13, 2007

(Appeal from Superior Court, judicial district of New Haven, geographical area number twenty-three, A. Robinson, J.)

James J. Ruane, for the appellant (defendant).

Marjorie Allen Dauster, senior assistant state's attorney, with whom, on the brief, were *Michael Dearington*,

state's attorney, and *Joseph R. LaMotta*, assistant state's attorney, for the appellee (state).

Opinion

ROGERS, J. The defendant, Charles Pilotti, appeals from the judgment of conviction, rendered after a jury trial, of operating a motor vehicle while having an elevated blood alcohol content in violation of General Statutes § 14-227a (a) (2).¹ On appeal, the defendant claims that (1) the breath test results from the Intoxilyzer 5000 EN (Intoxilyzer) were inadmissible because they failed to comply with regulations and statutes in that the results were volume based, not weight based, and (2) the court improperly denied his motion for a judgment of acquittal because the evidence adduced at trial was insufficient to prove that he had a blood alcohol content of 0.08 of one percent or more by weight, as opposed to volume, at the time he operated his motor vehicle and that he had the requisite concentration of alcohol in his blood, as opposed to breath. We affirm the judgment of the trial court.

The following facts, which the jury reasonably could have found, and procedural history are relevant to the defendant's appeal. At approximately 11:25 p.m. on September 3, 2003, Sergeant Jay Falcioni of the East Haven police department stopped the defendant for speeding in East Haven. Upon asking the defendant for his driver's license, registration and insurance card, Falcioni detected the odor of alcohol on the defendant's breath and observed that the defendant's eyes were bloodshot and glassy, his pupils were dilated and his speech was slightly slurred. The defendant told Falcioni that he had consumed two beers. Falcioni asked the defendant to exit the vehicle and conducted three field sobriety tests.² On the basis of the defendant's performance of these tests, Falcioni concluded that the defendant was under the influence of alcohol to the extent that he could not safely operate a motor vehicle, and placed him under arrest.

The defendant was transported to the East Haven police department. At 12:03 a.m., the defendant took a breath test on the Intoxilyzer, which reported a result of 0.126 of a percent. The defendant took a second breath test on the Intoxilyzer at 12:41 a.m., with a result of 0.113 of a percent. Thereafter, the state charged the defendant with operating a motor vehicle while under the influence of alcohol in violation of § 14-227a (a) (1) and operating a motor vehicle while having an elevated blood alcohol content in violation of § 14-227a (a) (2).

Prior to trial, the defendant made several motions in limine to exclude the results of the breath tests. On December 1, 2004, the defendant filed a memorandum of law in which he argued that the court was required to conduct a *Porter*³ hearing before the test results from the Intoxilyzer could be admitted into evidence. On December 1, 2004, the parties argued the motions. The court ruled that the state had to make an offer of proof

that it would be able to meet the statutory and regulatory foundations for the admission of the test results. On December 2, 2004, the court held a hearing concerning the state's offer of proof. The court ruled that it would take the papers but that a *Porter* hearing was not necessary.⁴ On December 6, 2004, the court denied the defendant's motions to suppress the Intoxilyzer evidence, concluding that although suppression was not required by law, nothing in the ruling should be interpreted as a limitation on the defendant's ability to attack vigorously the validity and soundness of the results from the Intoxilyzer.

The jury found the defendant not guilty of the charge of operating a motor vehicle while under the influence of intoxicating liquor in violation of § 14-227a (a) (1) and found him guilty of operating a motor vehicle while having an elevated blood alcohol content in violation of § 14-227a (a) (2). The defendant was sentenced to six months incarceration, execution suspended, and one year of probation. This appeal followed. Additional facts will be set forth as necessary.

I

The defendant first claims that the court improperly admitted the test results from the Intoxilyzer because the results failed to comply with state statutes and regulations.⁵ We disagree.

“[T]he trial court has broad discretion in ruling on the admissibility [and relevancy] of evidence. . . . The trial court's ruling on evidentiary matters will be overturned only upon a showing of a clear abuse of the court's discretion. . . . We will make every reasonable presumption in favor of upholding the trial court's ruling, and only upset it for a manifest abuse of discretion.” (Citations omitted; internal quotation marks omitted.) *State v. Coleman*, 241 Conn. 784, 789, 699 A.2d 91 (1997).

The admissibility of chemical analysis evidence is controlled by § 14-227a (b), which lists six factors⁶ that must be met before such evidence is deemed admissible and competent. See *State v. Jones*, 51 Conn. App. 126, 135, 721 A.2d 903 (1998) (interpreting § 14-227a [c], now [b]), cert. denied, 247 Conn. 958, 723 A.2d 814 (1999). General Statutes § 14-227a (b) provides in relevant part that “evidence respecting the amount of alcohol or drug in the defendant's blood or urine at the time of the alleged offense, as shown by a chemical analysis of the defendant's breath, blood or urine *shall be admissible and competent provided* . . . (3) the test was performed by or at the direction of a police officer according to methods and *with equipment approved by the Department of Public Safety* and was performed in accordance with the regulations adopted under subsection (d) of this section” (Emphasis added.) General Statutes § 14-227a (d) provides in relevant part: “The Commissioner of Public Safety shall ascertain the

reliability of each method and type of device offered for chemical testing and analysis purposes of blood, of breath and of urine and certify those methods and types which said commissioner finds suitable for use in testing and analysis of blood, breath and urine, respectively, in this state. The Commissioner of Public Safety shall adopt regulations . . . governing . . . the operation and use of chemical test devices . . . as said commissioner finds necessary . . . to insure reasonable accuracy in testing results. . . .” Accordingly, under the plain language of § 14-227a (d), chemical testing is not limited to blood testing. The statute also clearly contemplates the testing of breath.

The defendant argues that the Intoxilyzer reports the test results in terms of volume, not weight, and therefore fails to comply with the statutes and regulations. He argues that § 14-227a (b) (3) requires that the tests be performed in accordance with the regulations of the department of public safety. The statute under which the defendant was convicted, § 14-227a (a) (2), the defendant argues further, prohibits having an “elevated blood alcohol content.” Under the regulations in effect in 2003,⁷ § 14-227a-1a (4) of the Regulations of Connecticut State Agencies provided that “[b]lood ethyl alcohol concentration’ means the unit weight of alcohol per one hundred (100) grams of blood expressed as percentage; for example, five hundredths (0.05) gram of alcohol per one hundred (100) grams of blood shall be expressed as five hundredths (0.05) per cent.”

At trial, Robert H. Powers, director of the controlled substance toxicology laboratory for the state department of public safety, testified for the state regarding the Intoxilyzer test results. The defendant asserts that Powers was referring to § 14-227a-1a (4) when he testified that the test results from the Intoxilyzer were not in “strict compliance” with the state regulations because the regulations require that “percentage [to] be calculated based on 100 grams of blood” and instead the result was measured in terms of weight of alcohol per 210 liters of breath or 100 milliliters of blood.⁸ The defendant concludes that because Powers testified that the Intoxilyzer reported the results in terms of volume and was not in strict compliance with § 14-227a-1a (4), which requires the result to be reported as a percentage of weight, the court could not properly admit the test results.⁹

The defendant misconstrues the requirements for the admission of chemical analysis evidence. General Statutes § 14-227a (b) requires the state to establish as a foundation for the admissibility of chemical analysis evidence that the test was performed with equipment approved by the department of public safety. It does not require, as the defendant contends, that the device satisfy the criteria set forth in the regulations. See *State v. Kirsch*, 263 Conn. 390, 408, 820 A.2d 236 (2003) (“The

[department of public safety's regulations concerning the requirements for blood alcohol testing] were promulgated pursuant to the commissioner of public safety's authority under General Statutes § 14-227a (d). That section provides only that testing that complies with the regulatory requirements is deemed to be competent evidence. . . . It does not, however, proscribe the admission of evidence that fails to satisfy those requirements." [Citation omitted]).

The court properly admitted the Intoxilyzer results because the statutory requirement at issue, § 14-227a (b) (3), was satisfied. Powers testified that as the director of the controlled substance toxicology laboratory for the state department of public safety, he has been designated by the commissioner of public safety to ascertain the reliability of each method of chemically analyzing breath samples of individuals suspected of operating a motor vehicle under the influence of intoxicating liquor. He also testified that the Intoxilyzer has been certified by the commissioner of public safety as a reliable testing device and that the specific unit, serial number 68-011839, on which the defendant was tested, was checked and certified by the former director of the controlled substances-toxicology laboratory of the department of public safety. Because § 14-227a (b) provides the exclusive grounds for admission of chemical analysis, the court properly admitted the test results after hearing testimony that the Intoxilyzer was certified as a reliable testing device. See *State v. Jones*, supra, 51 Conn. App. 135.

II

The defendant next claims that the court improperly denied his motion for a judgment of acquittal¹⁰ because the evidence adduced at trial was insufficient to sustain his conviction of operating a motor vehicle while under the influence of intoxicating liquor. Specifically, the defendant argues that the evidence was insufficient to prove that he had a blood alcohol content of 0.08 percent or more by weight, as opposed to volume, at the time he operated his motor vehicle and that he had the requisite concentration of alcohol in his blood, as opposed to breath. We are not persuaded.

We first set forth our standard of review. "The standard of review we apply to a claim of insufficient evidence is well established. In reviewing the sufficiency of the evidence to support a criminal conviction we apply a two-part test. First, we construe the evidence in the light most favorable to sustaining the verdict. Second, we determine whether upon the facts so construed and the inferences reasonably drawn therefrom the [finder of fact] reasonably could have concluded that the cumulative force of the evidence established guilt beyond a reasonable doubt.

"We note that the [finder of fact] must find every

element proven beyond a reasonable doubt in order to find the defendant guilty of the charged offense, [but] each of the basic and inferred facts underlying those conclusions need not be proved beyond a reasonable doubt. . . . If it is reasonable and logical . . . to conclude that a basic fact or an inferred fact is true, the [fact finder] is permitted to consider the fact proven and may consider it in combination with other proven facts in determining whether the cumulative effect of all the evidence proves the defendant guilty of all the elements of the crime charged beyond a reasonable doubt.” (Internal quotation marks omitted.) *State v. Ledbetter*, 275 Conn. 534, 542, 881 A.2d 290 (2005), cert. denied, U.S. , 126 S. Ct. 1798, 164 L. Ed. 2d 537 (2006).

The defendant argues that the evidence was insufficient because the Intoxilyzer reported the amount of alcohol in breath measured by volume rather than the amount of alcohol in blood measured by weight.¹¹ We disagree and conclude that there was sufficient evidence from which the jury reasonably could have concluded that he was operating a motor vehicle with a blood alcohol content of 0.08 or more by weight, as required by statute.

There was evidence from which the jury reasonably could have determined that the Intoxilyzer did not simply report the amount of alcohol in the defendant’s breath, but also reported the amount of alcohol in his blood. Powers testified that the Intoxilyzer tests a subject’s breath and produces a printed test result. The result is reported as a “percent [blood alcohol content (BAC)],” which Powers testified, “refers to both breath or blood.” Powers explained that the Intoxilyzer tests breath alcohol and expresses the concentration of alcohol in terms of grams of alcohol per 210 liters of *breath*, which is expected to be equivalent to grams of alcohol per 100 milliliters of *blood*.¹² Powers stated that there is an “expectation of equivalency” between these measurements of breath and blood, which is generally accepted in the scientific community.

Powers also testified that the ratio of grams of alcohol per 210 liters of breath to grams of alcohol per 100 milliliters of blood understates the actual blood equivalent by approximately 10 percent. That notwithstanding, Powers testified that expressed as a *blood* alcohol concentration, the first and second test results were 0.126 grams of alcohol per 100 milliliters of blood and 0.113 grams of alcohol per 100 milliliters of blood, respectively. The jury was free to credit Powers’ testimony concerning the test results of 0.126 and 0.113 expressing the defendant’s alcohol concentration in terms of grams of alcohol per 100 milliliters of *blood*. From Powers’ testimony, the jury could have concluded that the test results of 0.126 and 0.113 as expressed as grams of alcohol per 100 milliliters of blood may actually under-

state the defendant's blood alcohol concentration by approximately 10 percent. To whatever extent the blood equivalent is understated when the grams of alcohol per 210 liters of *breath* is converted to grams of alcohol per 100 milliliters of *blood*, it aids the defendant.

The defendant further contends that the evidence of elevated blood alcohol content was insufficient because the Intoxilyzer measured alcohol as a percentage of volume, not weight. In response to the prosecutor's question on direct examination concerning whether the Intoxilyzer produces a result in strict compliance with state regulations promulgated by the department of public safety with respect to such devices, Powers replied: "Well, strict compliance, not exactly. There's a small correction factor. The result is put out in terms of alcohol percent on a weight volume basis. So, weight of alcohol per 210 liters of breath or per 100 milliliters . . . of blood. The strict reading of the regulations suggests that that percentage should be calculated based on 100 grams of blood. So, it winds up being about a 3 to a 5 percent difference."¹³ The defendant essentially argues that the evidence is insufficient because Powers testified that the Intoxilyzer reported results on a weight *volume* basis—specifically in terms of grams of alcohol per 210 *liters* of breath or 100 *milliliters* of blood, rather than on a weight *weight* basis—specifically grams of alcohol per 100 *grams* of blood—as required by the regulations. On the basis of Powers' testimony, a small correction factor of about 3 to 5 percent is required to convert grams of alcohol as a percentage of *volume*—that being *milliliters* of blood or *liters* of breath—to grams of alcohol as a percentage of *weight*—that being *grams* of blood.¹⁴ Although Powers did not indicate whether the correction will make the result smaller or larger, even if the correction factor were to cause a reduction in the test results by 5 percent, the results would be 0.120 and 0.107 grams of alcohol per 100 grams of blood, respectively,¹⁵ which is still greater than 0.08.

Accordingly, the jury had evidence from which it reasonably could have made the following conclusions. The Intoxilyzer tested the defendant's breath, with results of 0.126 and 0.113. Those test results can be expressed as 0.126 and 0.113 grams of alcohol per 100 milliliters of *blood*. Those results, however, when expressed in terms of units of blood may understate the defendant's blood alcohol content by approximately 10 percent. The jury could have decided to give the defendant the benefit of any understatement in this first conversion of breath to blood by keeping the results at 0.126 and 0.113 grams of alcohol per 100 milliliters of blood. The jury could have determined that a second conversion was needed to transform the expression of these test results from grams of alcohol per 100 *milliliters* of blood to grams of alcohol per 100 *grams* of blood, to comply with the regulation. The jury could

have given the defendant any benefit of this second conversion by assuming a correction factor resulting in a 5 percent reduction in blood alcohol concentration, thereby reducing the test results, as stated previously, to 0.120 and 0.107 grams of alcohol per 100 grams of blood, respectively. Even if we assume that the jury gave the defendant the benefit of both conversions, there was sufficient evidence for the jury to find that the test results were still greater than the statutory limit.¹⁶

Finally, the defendant claims that there was insufficient evidence that his blood alcohol content was 0.08 of a percent or greater at the time of operation of the motor vehicle. The defendant argues that the tests did not show his blood alcohol content at the time of operation.

Powers testified during cross-examination concerning three processes regarding alcohol concentration in the blood: absorption, distribution and elimination. He testified that the three processes overlap, but that absorption happens rapidly, dominating at first, and that elimination can take a long time, continuing on after absorption and distribution are complete. Powers further stated that usually, more than 90 percent of the alcohol consumed is absorbed within fifteen to twenty minutes after it is ingested and that normally alcohol takes sixty to ninety minutes to be absorbed completely. He explained that elimination can take a long time.¹⁷ Individuals, he stated, metabolize alcohol at slightly different rates, and the average rate of metabolism of alcohol can range from 0.008 gram per deciliter per hour to 0.039 gram per deciliter per hour.

From this evidence, the jury reasonably could have inferred that the defendant's blood alcohol content was in excess of the statutory limits at the time he operated the motor vehicle. The test results were both significantly greater than 0.08. The defendant was arrested at approximately 11:25 p.m., and the first test was administered at 12:03 a.m., with a result of 0.126, and the second test was administered at 12:41 a.m., with a result of 0.113. As stated previously, the jury could have determined that, giving the defendant the benefit of both conversions, the test results were at the least 0.120 and 0.107 grams of alcohol per 100 grams of blood, respectively. The defendant did not ingest any substance or vomit between the time of the arrest and the time of the two tests. Powers testified that absorption takes place quickly and is generally 90 percent complete within fifteen to twenty minutes, and elimination takes a long time. He further testified that the average rate of metabolism of alcohol ranges from 0.008 gram per deciliter per hour to 0.039 gram per deciliter per hour. Although Powers testified that individual rates may vary, the jury did not hear evidence of the defendant's specific rate of metabolism or an opinion that his blood alcohol content was less than 0.08 at the time of opera-

tion. The jury reasonably could have found that because the first test occurred thirty-eight minutes after his arrest, the defendant had absorbed at least 90 percent of the alcohol in his system at the time of the first test. Accordingly, the jury could have inferred that the defendant's blood alcohol concentration was, if anything, greater at the time of his arrest than it was at the time of the tests.

The jury reasonably could also have inferred, on the basis of common knowledge and experience, that a person becomes sober gradually. See *State v. Padua*, 273 Conn. 138, 157, 869 A.2d 192 (2005) (“[j]urors are not expected to lay aside matters of common knowledge or their own observation and experience of the affairs of life, but, on the contrary, to apply them to the evidence or facts in hand, to the end that their action may be intelligent and their conclusions correct” [internal quotation marks omitted]). On the basis of this evidence and common knowledge,¹⁸ the jury reasonably could have found that where the second test result was 0.113—or at the least 0.107 grams of alcohol per 100 grams of blood when converted—and where thirty-eight minutes prior to the second test, the first test result was 0.126—or at least 0.120 grams of alcohol per 100 grams of blood when converted—at the time of operation thirty-eight minutes prior to the first test, the defendant's blood alcohol content was 0.08 of a percent or greater.

The judgment is affirmed.

In this opinion the other judges concurred.

¹ General Statutes § 14-227a (a) provides in relevant part: “No person shall operate a motor vehicle while under the influence of intoxicating liquor or any drug or both. A person commits the offense of operating a motor vehicle while under the influence of intoxicating liquor or any drug or both if such person operates a motor vehicle on a public highway of this state . . . (1) while under the influence of intoxicating liquor or any drug or both, or (2) while such person has an elevated blood alcohol content. For the purposes of this section, ‘elevated blood alcohol content’ means a ratio of alcohol in the blood of such person that is eight-hundredths of one per cent or more of alcohol, by weight.”

² At trial, the defendant offered evidence from an expert witness, who testified that on the basis of the defendant's medical history, the field sobriety tests were not an accurate measurement to evaluate intoxication. At the defendant's request, the court instructed the jury that the evidence of the field sobriety tests was limited to count one of the information, which charged the defendant under General Statutes § 14-227a (a) (1).

³ *State v. Porter*, 241 Conn. 57, 698 A.2d 739 (1997) (en banc), cert. denied, 523 U.S. 1058, 118 S. Ct. 1384, 140 L. Ed. 2d 645 (1998).

⁴ The defendant does not claim on appeal that the court improperly declined to conduct a hearing pursuant to *State v. Porter*, 241 Conn. 57, 698 A.2d 739 (1997) (en banc), cert. denied, 523 U.S. 1058, 118 S. Ct. 1384, 140 L. Ed. 2d 645 (1998).

⁵ The state argues that the claim should not be reviewed because the defendant did not object to the admission of the test results on the ground argued on appeal, namely that the Intoxilyzer fails to comply with the regulations because it reports test results in terms of volume, not weight. The state further argues that the defendant did not seek review of his unpreserved claim pursuant to *State v. Golding*, 213 Conn. 233, 567 A.2d 823 (1989), or under the plain error doctrine as codified in Practice Book § 60-5. The defendant made several motions in limine seeking to exclude the evidence of the test results from the Intoxilyzer, on various grounds. On November 2, 2004, the defendant filed a motion arguing that the test

results should be suppressed on the grounds that the maintenance and operation of the Intoxilyzer did not comply with state regulations stating, inter alia, that “[t]he machine was not regularly checked for accuracy as required by statute and the regulations thereunder.” We find this motion sufficient to warrant review of the merits of this claim.

⁶ The defendant’s challenge relates to the third of the six conditions, and he does not contest that the other five have been met.

⁷ Section 14-227a-1a of the Regulations of Connecticut State Agencies was repealed in 2005.

⁸ On direct examination, the prosecutor asked: “Does the Intoxilyzer 500 EN produce a result, which is in strict compliance with the regulations promulgated by the department of public safety with respect to such devices?” Powers replied, “Well, strict compliance, not exactly. There’s a small correction factor. The result is put out in terms of alcohol percent on a weight volume basis. So, weight of alcohol per 210 liters of breath or per 100 milliliters of—of blood. The strict reading of the regulations suggests that that percentage should be calculated based on 100 grams of blood. So, it winds up being about a 3 to a 5 percent difference.”

⁹ “Volume” is defined as “the amount of space, measured in cubic units, that an object or substance occupies.” Webster’s Unabridged Dictionary (2d Ed. 2001). “Liter” is defined as “a metric unit of volume equal to a cubic decimeter. . . .” American Heritage Dictionary of the English Language (New College Ed. 1981).

“Weight” is defined as “the amount or quantity of heaviness or mass; amount a thing weighs.” Webster’s Unabridged Dictionary (2d Ed. 2001). “Gram” is defined as “a metric unit of mass and weight” American Heritage Dictionary of the English Language (New College Ed. 1981).

¹⁰ After the state rested, the defendant moved for a judgment of acquittal, arguing that Powers testified that the breath test readings were readings of breath alcohol content only and that no opinion was given as to the blood alcohol content at the time of operation of the motor vehicle. The court denied the motion, ruling that “[t]here was some evidence offered by the expert . . . and if the jury accepts that, there will be a basis for [it] to find [that] conversion is appropriate from breath alcohol to blood alcohol content.” At the end of the evidence, the defendant again moved for a judgment of acquittal, arguing that there was insufficient evidence as to the blood alcohol content at the time of operation. The court deferred its ruling on the motion. Although there does not appear to be a ruling on the record with respect to this motion, the court did send the case to the jury.

¹¹ General Statutes § 14-227a (a) provides in relevant part: “For the purposes of this section, ‘elevated blood alcohol content’ means a ratio of alcohol in the blood of such person that is eight-hundredths of one per cent or more of alcohol, by weight.”

¹² Powers testified as follows: “[T]he Intoxilyzer determines the concentration of alcohol as an amount of alcohol per unit volume. That then is converted, not altered, but expressed not in terms of one liter, but actually expressed in terms of 210 liters, and that number has been chosen or selected for a number of reasons, but one of which is when one uses that way of expressing breath alcohol, the number comes out like a 0.153 to be equivalent in—as to what one expects in blood. . . . If we have a 0.153 grams per 210 liters, we also expect that the blood is going to be 0.153 grams per 100 milliliters. . . . [I]t’s actually probably not quite right in that it understates the direct conversion by about 10 percent, which means that all Breathalyzer results are roughly more or less 10 percent below what the blood equivalent really would be.”

¹³ The regulations in effect in 2003 provided that “blood alcohol concentration” means “the unit weight of alcohol per one hundred (100) unit weights of blood expressed as a percentage. . . .” Regs., Conn. State Agencies § 14-227a-1a (4).

¹⁴ See footnote 9.

¹⁵ Reducing 0.126 and 0.113 by 5 percent results in the following calculations: (1) $0.126 \times 95\% = 0.120$ and (2) $0.113 \times 95\% = 0.107$.

¹⁶ In other words, the jury could have made two conversions, and even if we assume that both conversions were made in the defendant’s favor, the results would still be greater than the statutory limit. First, the jury could have determined that although the Intoxilyzer measured breath, the results should be expressed in terms of blood. The jury could have recognized that the expression of the test results as 0.126 and 0.113 grams of alcohol per 100 milliliters of blood understated the defendant’s blood alcohol concentration by approximately 10 percent. The jury, however, could have kept

the test results at 0.126 and 0.113 grams of alcohol per 100 milliliters of blood, thereby giving the defendant any benefit of the conversion from grams of alcohol per 210 liters of breath to grams of alcohol per 100 milliliters of blood. Second, based again on Power's testimony, the jury could have determined that expressing the results as 0.126 and 0.113 grams of alcohol per 100 *milliliters* of blood did not strictly comply with the regulations, which suggest that the concentration of alcohol should be expressed in terms of grams of alcohol per 100 *grams* of blood. Powers testified that converting grams of alcohol per 100 *milliliters* of blood to grams of alcohol per 100 *grams* of blood resulted in a 3 to 5 percent difference. The jury could have given the defendant the benefit of this conversion, thereby decreasing the results to 0.120 and 0.107 grams of alcohol per 100 grams of blood, respectively.

¹⁷ Powers explained that it is well established that alcohol eliminates from a person's body under what is called the zero order kinetic model for the elimination of alcohol. He explained that typically, under first order, the ability to eliminate a drug is more rapid when there is more concentration of the drug in the body, but alcohol is different and is eliminated under zero order kinetics. The problem with alcohol, he explained, is that for "most of the common range that people drink, the amount of alcohol in our body is more than our body can get rid of . . . The problem is, there's so much alcohol there that the enzymes . . . [are] maxed out." Powers testified that an individual's rate of metabolism will be a function of how much of a particular enzyme that person has.

¹⁸ The defendant requested that the court refrain from charging the jury on the statutory presumption in General Statutes § 14-227a (b), which provides in relevant part: "In any prosecution under this section it shall be a rebuttable presumption that the results of such chemical analysis establish the ratio of alcohol in the blood of the defendant at the time of the alleged offense. . . ." The court did not instruct the jury on the statutory presumption, but the very existence of this presumption supports the jury's inference that the defendant's blood alcohol content was 0.08 or greater at the time of operation.

"In *State v. Geisler*, 22 Conn. App. 142, 160–62, 576 A.2d 1283, cert. denied, 215 Conn. 819, 576 A.2d 547 (1990), vacated, 498 U.S. 1019, 111 S. Ct. 663, 112 L. Ed. 2d 657, on remand, 25 Conn. App. 282, 594 A.2d 985 (1991), aff'd, 222 Conn. 672, 610 A.2d 1225 (1992), this court determined, under General Statutes (Rev. to 1985) § 14-227a (c) [now (b)] . . . what evidence was necessary to prove a violation of § 14-227a (a) (2). . . . General Statutes (Rev. to 1985) § 14-227a (c) [now (b)] . . . set forth six preconditions for the admissibility of a chemical test. . . . If the six preconditions were met, the chemical test could be used to show the BAC of the accused. . . . [P]recondition (6), as then written, provided that 'evidence [must be] presented which demonstrates that the test results and the analysis thereof accurately reflect the blood alcohol content at the time of the alleged offense.' . . . This court interpreted subdivision (6) to require that expert testimony specifically relate the BAC at the time of the tests to the BAC at the time of operation of the vehicle. . . .

"Subsequent to the *Geisler* decision, in Public Acts 1993, No. 93-371, the legislature amended the 'analysis thereof' language of § 14-227a (c) [now (b)] so that the state could prove a violation of § 14-227a (a) (2) without the need for extrapolation testimony. The legislature inserted a rebuttable presumption that provides that the BAC at the time of operation will be presumed to be the same as it was at the time of the first test without extrapolation testimony." (Citations omitted.) *State v. Korhn*, 41 Conn. App. 874, 877–78, 678 A.2d 492, cert. denied, 239 Conn. 910, 682 A.2d 1010 (1996). In that case, we concluded that "a rational basis exists for the jury to make the connection permitted by the inference" *Id.*, 882.