

127 Nev., Advance Opinion 84

IN THE SUPREME COURT OF THE STATE OF NEVADA

THE STATE OF NEVADA,
Petitioner,

vs.

THE EIGHTH JUDICIAL DISTRICT
COURT OF THE STATE OF NEVADA,
IN AND FOR THE COUNTY OF
CLARK, AND THE HONORABLE
STEFANY ANN MILEY, DISTRICT
JUDGE,

Respondents,

and

BOBBY ARMSTRONG,
Real Party in Interest.

No. 55918

FILED

DEC 29 2011

TRACEE K. CHESMAN
CLERK OF SUPREME COURT
BY *[Signature]*
CHIEF DEPUTY CLERK

Original petition for a writ of mandamus or prohibition challenging an order of the district court granting in part the real party in interest's motion to preclude the introduction of his blood alcohol test results in a prosecution for driving under the influence.

Petition denied.

Catherine Cortez Masto, Attorney General, Carson City; David J. Roger, District Attorney, Steven S. Owens, Chief Deputy District Attorney, and Bruce W. Nelson, Deputy District Attorney, Clark County, for Petitioner.

Daniel J. Albregts, Ltd., and Daniel J. Albregts, Las Vegas; Mueller, Hinds & Associates and Craig A. Mueller and Michael J. Morey, Las Vegas, for Real Party in Interest.

BEFORE THE COURT EN BANC.

OPINION

By the Court, DOUGLAS, J.:

In this original writ proceeding, we consider the admissibility of retrograde extrapolation evidence to estimate a defendant's blood alcohol level at a point in time based on a blood sample taken at a later point in time. We conclude that although retrograde extrapolation evidence is relevant in a prosecution for driving under the influence, under certain circumstances such evidence may be unfairly prejudicial and therefore inadmissible. Because the prosecution in this case had to rely on the results from a single blood sample and a number of the factors that affect the mathematical calculation necessary to a retrograde extrapolation were unknown, we cannot conclude that the district court manifestly abused or arbitrarily or capriciously exercised its discretion in concluding that the evidence would be unfairly prejudicial in this case. We therefore deny the petition.

FACTS AND PROCEDURAL HISTORY

The State charged real party in interest Bobby Armstrong with driving under the influence causing death and/or substantial bodily harm under two theories of liability: that he (1) was "under the influence of intoxicating liquor" or (2) had "a concentration of alcohol of 0.08 or more in his . . . blood or breath" and did "any act or neglect[ed] any duty imposed by law while driving or in actual physical control" of a vehicle. NRS 484C.430(1) (formerly NRS 484.3795). According to the indictment, Armstrong was driving when his vehicle collided with another vehicle, causing substantial bodily harm to the other driver. The collision occurred at approximately 1:30 in the morning. A single blood sample was taken from Armstrong at 3:51 a.m., more than two hours after the collision.

That blood sample had an alcohol level of .18. Armstrong filed a pretrial motion to exclude the blood alcohol test result. He argued that his blood was drawn outside the statutory two-hour window provided in NRS 484C.430(1)(c)¹ and that the test was inadmissible because only one blood sample was obtained. He further argued that the retrograde extrapolation that the State would have to use to determine his blood alcohol level at the time he was driving was unreliable and therefore irrelevant and unfairly prejudicial. The State opposed the motion, arguing that retrograde extrapolation was not required to determine Armstrong's blood alcohol level at the time of the collision because his alcohol level was sufficiently high that a jury could determine that it was above .08 while he was driving, but even if the State were required to do so, any variables in the retrograde extrapolation go to the weight of that evidence rather than its admissibility. The State also argued that the blood alcohol test was admissible to show that Armstrong was driving under the influence of intoxicating liquor.

After a lengthy evidentiary hearing involving the conflicting testimony of two expert witnesses, the district court granted Armstrong's motion in part. The district court excluded retrograde extrapolation as a means of determining Armstrong's blood alcohol level at the time he was driving and the numerical result of the blood alcohol test but allowed the State to present more generalized evidence that the blood test showed the

¹The State did not charge Armstrong with a violation under NRS 484C.430(1)(c).

presence of alcohol. This original petition for a writ of mandamus followed.²

DISCUSSION

A writ of mandamus is available to compel the performance of an act that the law requires as a duty resulting from an office, trust, or station, NRS 34.160, or to control a manifest abuse or arbitrary or capricious exercise of discretion, see Round Hill Gen. Imp. Dist. v. Newman, 97 Nev. 601, 603-04, 637 P.2d 534, 536 (1981). The writ will not issue, however, if a petitioner has a plain, speedy, and adequate remedy in the ordinary course of the law. NRS 34.170. Ultimately, the decision to entertain an extraordinary writ petition lies within our discretion, and we must “consider[] whether judicial economy and sound judicial administration militate for or against issuing the writ,” Redeker v. Dist. Ct., 122 Nev. 164, 167, 127 P.3d 520, 522 (2006), limited on other grounds by Hidalgo v. Dist. Ct., 124 Nev. 330, 341, 184 P.3d 369, 377 (2008), including whether “an important issue of law needs clarification and public policy is served by this court’s invocation of its original jurisdiction,” Diaz v. Dist. Ct., 116 Nev. 88, 93, 993 P.2d 50, 54 (2000) (quoting Business Computer Rentals v. State Treas., 114 Nev. 63, 67, 953 P.2d 13, 15 (1998)). The instant petition challenges the district court’s

²The State filed its petition in the alternative, seeking relief in mandamus or prohibition. Because prohibition is focused on arresting the proceedings of a district court that is acting in excess of its jurisdiction, NRS 34.320, and the district court here clearly had jurisdiction over the prosecution and to decide evidentiary issues, we conclude that prohibition is not the appropriate vehicle for seeking relief in this matter.

exercise of discretion, and the State has no other remedy at law because it cannot appeal the final judgment in a criminal case. NRS 177.015(3) (“The defendant only may appeal from a final judgment or verdict in a criminal case.”). Because the petition raises an important issue of law that needs clarification, we exercise our discretion to consider its merits.

The admission or exclusion of evidence rests within the district court’s sound discretion. Thomas v. State, 122 Nev. 1361, 1370, 148 P.3d 727, 734 (2006). In the context of mandamus, this court considers whether the district court’s evidentiary ruling was a manifest abuse or arbitrary or capricious exercise of its discretion. See NRS 34.160; Round Hill, 97 Nev. at 603-04, 637 P.2d at 536. An arbitrary or capricious exercise of discretion is one “founded on prejudice or preference rather than on reason,” Black’s Law Dictionary 119 (9th ed. 2009) (defining “arbitrary”), or “contrary to the evidence or established rules of law,” id. at 239 (defining “capricious”). See generally City Council v. Irvine, 102 Nev. 277, 279, 721 P.2d 371, 372 (1986) (concluding that “[a] city board acts arbitrarily and capriciously when it denies a license without any reason for doing so”). A manifest abuse of discretion is “[a] clearly erroneous interpretation of the law or a clearly erroneous application of a law or rule.” Steward v. McDonald, 958 S.W.2d 297, 300 (Ark. 1997); see Jones Rigging and Heavy Hauling v. Parker, 66 S.W.3d 599, 602 (Ark. 2002) (stating that a manifest abuse of discretion “is one exercised improvidently or thoughtlessly and without due consideration”); Blair v. Zoning Hearing Hd. of Tp. of Pike, 676 A.2d 760, 761 (Pa. Commw. Ct. 1996) (“[M]anifest abuse of discretion does not result from a mere error in judgment, but occurs when the law is overridden or misapplied, or when the judgment

exercised is manifestly unreasonable or the result of partiality, prejudice, bias or ill will.”).

The evidence at issue in this case involves retrograde extrapolation. Retrograde extrapolation is a “mathematical calculation used to estimate a person’s blood alcohol level at a particular point in time by working backward from the time the blood [sample] was taken.” Com. v. Senior, 744 N.E.2d 614, 619 (Mass. 2001). The calculation requires information regarding the rates at which alcohol is absorbed and excreted. Those rates can vary based on a number of factors, including: the amount of time between a person’s last drink and the blood test, the amount and type of alcohol consumed, the time period over which alcohol was consumed, and personal characteristics such as age, weight, alcohol tolerance, and food intake. See Mata v. State, 46 S.W.3d 902, 915-16 (Tex. Crim. App. 2001), overruled on other grounds by Bagheri v. State, 87 S.W.3d 657, 660-61 (Tex. App. 2002).

Relevance is the first question in determining whether retrograde extrapolation evidence is admissible. See NRS 48.025 (providing that “[a]ll relevant evidence is admissible” unless otherwise excluded by statute or constitutional provision and that “[e]vidence which is not relevant is not admissible”). “[R]elevant evidence’ means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more or less probable than it would be without the evidence.” NRS 48.015. The district court appears to have concluded that retrograde extrapolation evidence had some

relevance to the State's theories that Armstrong was driving under the influence or had a blood alcohol concentration above the legal limit at the time he was driving.³ Although we have not addressed the admissibility of retrograde extrapolation as a matter of law, we have alluded to its relevance in prosecutions for driving under the influence. See, e.g., Sheriff v. Burcham, 124 Nev. 1247, 1261, 198 P.3d 326, 335 (2008) (holding that State was not required to present retrograde extrapolation evidence to obtain grand jury indictment where grand jury could reasonably infer from two blood alcohol tests taken within reasonable time after driving that defendant's blood alcohol concentration was .08 or higher when he was driving); Anderson v. State, 109 Nev. 1129, 1135, 865 P.2d 318, 321 (1993) (pointing to retrograde extrapolation evidence in concluding that State presented sufficient evidence to support conviction). We take this opportunity to expressly recognize the relevance of retrograde extrapolation evidence. Retrograde extrapolation evidence is relevant to the two theories of driving under the influence charged in this case, as it has a tendency to make the existence of a consequential fact—the level of alcohol in a defendant's blood at a certain point in time—more probable than it would be without the evidence.

³The district court's order is not entirely clear on this point, but its focus on unfair prejudice indicates that the district court determined that the evidence was relevant since the weighing determination for unfair prejudice presupposes that the evidence is relevant. See NRS 48.035(1) ("Although relevant, evidence is not admissible if its probative value is substantially outweighed by the danger of unfair prejudice . . .").

Having determined that retrograde extrapolation evidence is relevant, we turn to the second question in determining whether retrograde extrapolation evidence is admissible: the danger of unfair prejudice. Under NRS 48.035(1), relevant evidence is inadmissible “if its probative value is substantially outweighed by the danger of unfair prejudice.” Because all evidence against a defendant will on some level “prejudice” (i.e., harm) the defense, NRS 48.035(1) focuses on “unfair” prejudice. This court has defined “unfair prejudice” under NRS 48.035 as an appeal to “the emotional and sympathetic tendencies of a jury, rather than the jury’s intellectual ability to evaluate evidence.” Krause Inc. v. Little, 117 Nev. 929, 935, 34 P.3d 566, 570 (2001); Schlotfeldt v. Charter Hosp. of Las Vegas, 112 Nev. 42, 46, 910 P.2d 271, 273 (1996). Although unfair prejudice commonly refers to decisions based on emotion, it is not so limited. See generally Fed. R. Evid. 403 advisory committee’s note (explaining that unfair prejudice in federal analog to NRS 48.035(1) is an “undue tendency to suggest decision on an improper basis, commonly, though not necessarily, an emotional one”); Tome v. United States, 513 U.S. 150, 160 (1995) (stating that Advisory Committee Notes are helpful guide to interpreting Federal Rules of Evidence). As the United States Supreme Court has explained in addressing Federal Rule of Evidence 403,⁴ “[t]he term ‘unfair prejudice,’ as to a criminal defendant, speaks to

⁴Rule 403 is the federal counterpart to NRS 48.035 and provides: “The court may exclude relevant evidence if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence.”

the capacity of some concededly relevant evidence to lure the factfinder into declaring guilt on a ground different from proof specific to the offense charged.” Old Chief v. United States, 519 U.S. 172, 180 (1997); see also Bhaya v. Westinghouse Elec. Corp., 922 F.2d 184, 188 (3d Cir. 1990) (describing unfair prejudice as “undue tendency to suggest decision on an improper basis” (internal quotations omitted)); accord People v. Greenlee, 200 P.3d 363, 367 (Colo. 2009) (noting that “[e]vidence is unfairly prejudicial where it introduces into the trial considerations extraneous to the merits, such as bias, sympathy, anger, or shock”); Camp Takajo, Inc. v. SimplexGrinnell, L.P., 957 A.2d 68, 72 (Me. 2008) (stating that “unfair prejudice . . . refers to an undue tendency to move the tribunal to decide on an improper basis, commonly, though not always, an emotional one” (quotation and footnote omitted)).

Here, the district court’s concern regarding unfair prejudice centered on the “many unknown variables” in the retrograde extrapolation calculation coupled with the reliance on a single blood sample. The suggestion is that the evidence is of limited probative value given those variables and the single sample, but the evidence itself is likely to move a jury to declare guilt based solely on a reaction to the blood alcohol level and the very real devastation caused by drunk driving rather than proof that the defendant was driving while under the influence or with a prohibited blood alcohol level. We, along with other jurisdictions, share the district court’s concern.

Some jurisdictions have determined that the admissibility of retrograde extrapolation depends on whether enough factors affecting the calculation are known and have expressed concerns with calculations that rely solely on average rates of absorption and excretion. For example, in

Mata v. State, the Texas Court of Criminal Appeals provided some guidance by explaining three factors courts should use in evaluating the reliability of retrograde extrapolation:

(a) the length of time between the offense and the test(s) administered; (b) the number of tests given and the length of time between each test; and (c) whether, and if so, to what extent, any individual characteristics of the defendant were known to the expert in providing his extrapolation. These characteristics and behaviors might include, but are not limited to, the person's weight and gender, the person's typical drinking pattern and tolerance for alcohol, how much the person had to drink on the day or night in question, what the person drank, the duration of the drinking spree, the time of the last drink, and how much and what the person had to eat either before, during, or after the drinking.

46 S.W.3d 902, 916 (Tex. Crim. App. 2001), overruled on other grounds by Bagheri v. State, 87 S.W.3d 657, 660-61 (Tex. App. 2002). The court declined to design an "exact blueprint" for all cases and recognized that not every personal fact about the defendant must be known to construct a reliable extrapolation—otherwise "no valid extrapolation could ever occur without the defendant's cooperation, since a number of facts known only to the defendant are essential to the process." Id. at 916-17. The court also indicated that the significance of those personal factors is influenced by the number of blood alcohol samples obtained and the time between multiple samples:

If the State had more than one test, each test a reasonable length of time apart, and the first test were conducted within a reasonable time from the time of the offense, then an expert could potentially create a reliable estimate of the defendant's [blood alcohol content] with limited

knowledge of personal characteristics and behaviors. In contrast, a single test conducted some time after the offense could result in a reliable extrapolation only if the expert had knowledge of many personal characteristics and behaviors of the defendant. Somewhere in the middle might fall a case in which there was a single test a reasonable length of time from the driving, and two or three personal characteristics of the defendant were known to the expert. We cannot and should not determine today the exact blueprint for reliability in every case. Suffice it to say that the factors must be balanced.

Id.; see also Burns v. State, 298 S.W.3d 697, 702 (Tex. App. 2009) (concluding that expert's testimony was unreliable due to expert's admission that "he knew none of the factors required by Mata when only a single test is available" and because testimony was unreliable, it was irrelevant and "its probative value was greatly outweighed by its prejudicial effect"); accord Com. v. Petrovich, 648 A.2d 771, 773 (Pa. 1994) (upholding trial court's conclusion that retrograde extrapolation expert's testimony was incomplete and elicited "an expert opinion which is necessarily based upon average dissipation rates, average absorption rates, and the alcohol content of the average drink" (internal quotations omitted)). See generally Kimberly S. Keller, Sobering Up Daubert: Recent Issues Arising in Alcohol-Related Expert Testimony, 46 S. Tex. L. Rev. 111, 122-29 (2004) (discussing concern in scientific community over the use of retrograde extrapolation calculations that do not employ factors that affect individual absorption and elimination rates, including (1) the type and amount of food in the stomach, (2) gender, (3) weight, (4) age, (5) mental state, (6) drinking pattern at the relevant time, (7) type and

amount of beverage consumed, and (8) elapsed time between the first and last drink taken).

We agree that achieving a reliable retrograde extrapolation calculation requires consideration of a variety of factors. The following factors are relevant to achieving a sufficiently reliable retrograde extrapolation calculation: (1) gender, (2) weight, (3) age, (4) height, (5) mental state, (6) the type and amount of food in the stomach, (7) type and amount of alcohol consumed, (8) when the last alcoholic drink was consumed, (9) drinking pattern at the relevant time, (10) elapsed time between the first and last drink consumed, (11) time elapsed between the last drink consumed and the blood draw, (12) the number of samples taken, (13) the length of time between the offense and the blood draws, (14) the average alcohol absorption rate, and (15) the average elimination rate. We observe, as the Mata court did, that not every personal fact about the defendant must be known to construct a reliable extrapolation, 46 S.W.3d at 916-17, but rather those factors must be balanced.

Turning to this case, the State and Armstrong presented experts who calculated Armstrong's estimated blood alcohol level based primarily on factors attributed to the "average" person and various hypothetical situations. The factors used in those calculations included: Armstrong's admission to the investigating officer at the scene that he drank two beers between 5 p.m. and 10 p.m., records indicating that Armstrong weighed 212 pounds, the time of the accident, the time of the blood draw, and the blood alcohol level in the single sample (.18). There was no evidence presented concerning Armstrong's age or height, the type and amount of food in his stomach, if any, his regular drinking pattern, or his emotional state after the collision.

Although several of the factors identified above were known, other significant factors were not and, significantly, only one blood draw was obtained. As the Mata court recognized, the significance of personal factors is influenced by the number of blood alcohol tests. “[A] single test conducted some time after the offense could result in a reliable extrapolation only if the expert had knowledge of many personal characteristics and behaviors of the defendant.” Id. at 916. Here, significant personal characteristics, such as the type and amount of food, if any, in Armstrong’s stomach—a factor that Armstrong’s expert testified was the most important and the State’s expert acknowledged significantly affects alcohol absorption—were unknown. And the single blood draw makes it difficult to determine whether Armstrong was absorbing or eliminating alcohol at the time of the blood draw. The admission of retrograde extrapolation evidence when a single blood draw was taken more than two hours after the accident and the extrapolation calculation is insufficiently tethered to individual factors necessary to achieve a reliable calculation potentially invites the jury to determine Armstrong’s guilt based on emotion or an improper ground—that the defendant had a high blood alcohol level several hours later—rather than a meaningful evaluation of the evidence. Thus, although relevant, the probative value of the extrapolation evidence could be sufficiently outweighed by this danger of unfair prejudice to preclude its admission.⁵ Under the

⁵The district court also excluded the blood alcohol level shown in the test result but allowed the State to present general evidence that there was alcohol in the blood sample, which was relevant to the State’s theory under NRS 484C.430(1)(a). Admitting the specific blood alcohol level in
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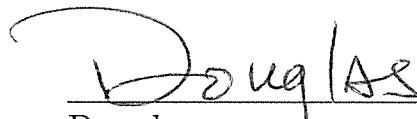
circumstances presented, we cannot say that the district court manifestly abused or arbitrarily or capriciously exercised its discretion, that is, applied a clearly erroneous interpretation of the law or one not based on reason or contrary to the evidence or established rules of law.

We are not unmindful of the State's concerns about prosecuting offenders for driving under the influence, but the State's accusations that the district court's order "precludes the state from ever convicting a drunk driver of having a .08 or more at [the] time of driving" and "legalizes driving under the influence of alcohol so long as a chemical test is not done within two hours of driving" go a step too far. The State may present evidence that is relevant and not unfairly prejudicial. NRS 48.025(1); NRS 48.035(1). Although retrograde extrapolation has its place in proving that a defendant was driving under the influence, it also has the potential to encourage a conviction based on an improper basis when the calculation is not sufficiently reliable in a given case. There may be circumstances consistent with this opinion in which a calculation based on the results of a single blood sample is reliable and whose relevance is not substantially outweighed by the danger of unfair prejudice; that is up to the district court to determine on a case-by-case basis. But even when

... continued

this case, where there was a single blood draw, without extrapolation testimony could encourage a guilty verdict based on similar improper grounds as discussed above.

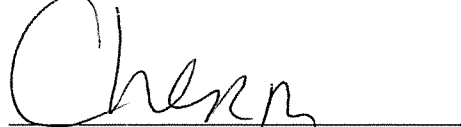
retrograde extrapolation evidence is not admissible, other evidence may establish that a defendant was driving under the influence as prohibited by NRS 484C.430(1)(a). See Sheriff v. Burcham, 124 Nev. 1247, 1258, 198 P.3d 326, 333 (2008) (concluding that State presented sufficient evidence to establish probable cause to believe defendant was driving under the influence based on testimony about defendant's driving and circumstances of accident, defendant's smell and physical appearance after accident, and defendant's admissions about drinking). Because the State has not demonstrated a manifest abuse or arbitrary or capricious exercise of discretion in this case, we deny the petition.


_____, J.
Douglas


We concur:


_____, C.J.

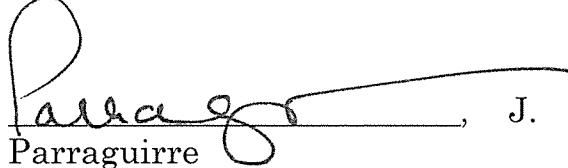
Saitta


_____, J.

Cherry


_____, J.

Gibbons


_____, J.
Parraguirre

PICKERING, J., with whom HARDESTY, J., agrees, dissenting:

The majority's analysis does not distinguish between the science of retrograde extrapolation and the legal standards by which the admissibility of expert testimony is judged and, as a result, falls into error. Only one toxicologist, Dr. Hiatt, testified at the hearing on Armstrong's motion to suppress.¹ (The other witness, Terry Cook, is a forensic chemist who tests blood for alcohol content; he does not perform retrograde extrapolation.) Dr. Hiatt testified that the known facts of this case "fit" the science of retrograde extrapolation, permitting an inference that, if Armstrong's blood alcohol level was .18 two hours and 21 minutes after the collision, it was at least that, and probably higher, at the time the collision occurred. Such evidence is directly relevant to the charges Armstrong faces: driving under the influence of alcohol, NRS 484C.430(1)(a), and/or driving with a .08 or greater blood alcohol level, NRS 484C.430(1)(b), resulting in substantial bodily harm, a category B felony.

The "unknown variables" that led the district court to exclude Armstrong's test results—variables the majority recasts as "factors" but equally fails to tie to the science—might invite unreliable extrapolation in some cases but, per Dr. Hiatt, this is not such a case. True, there was only one blood draw. If we didn't know whether Armstrong was in the absorption or the elimination phase when his blood was drawn, that could render the test scientifically indeterminate and the test results

¹Dr. Hiatt holds a B.A. in chemistry from Occidental College, a Ph.D. in organic chemistry from Yale University, and did significant post-doctoral work in clinical chemistry at the University of California Medical Center in San Francisco. He worked for many years as a toxicologist in Las Vegas before his retirement.

inadmissible. Here, however, Dr. Hiatt testified that the known facts, combined with the science of retrograde extrapolation, put Armstrong squarely in the elimination phase when his blood was drawn.

The known facts on which Dr. Hiatt relies are these: (1) Armstrong told the police at the scene that he had been drinking beer but that he stopped drinking at 10 p.m.; (2) the collision occurred at 1:30 a.m.; and (3) Armstrong traveled by ambulance from the scene to the hospital, where his blood was drawn at 3:51 a.m. Unless Armstrong lied to the police—significant in its own right—three and one-half hours elapsed between the time of his last drink and the collision. And unless the police, the ambulance technicians, or the hospital staff served Armstrong alcohol, of which there is zero evidence, nearly six hours elapsed between the time of Armstrong’s last drink and the blood draw.

“When a person stops consuming alcohol, his or her body eventually reaches an absorption point, where the body completes absorption of the alcohol he or she has ingested, and enters the elimination phase, where the body is only eliminating alcohol.” United States v. Tsosie, 791 F. Supp. 2d 1099, 1103 (D.N.M. 2011). While a person’s blood alcohol level will rise even after he or she stops drinking, once the absorption phase ends, the blood alcohol levels decline. Id. The uncontested evidence presented to the district court established that the absorption process generally requires one to three hours. Based on Armstrong’s statement to the police that he finished his last drink by 10 p.m., Dr. Hiatt opined that Armstrong had completed his absorption phase before the collision. His blood alcohol level “should have peaked by [1:30 a.m.]. It’s hard to imagine a scenario in which it would not have reached a peak at the time.”


Once a person completes absorption and enters the elimination phase, blood alcohol levels decline in linear fashion at a rate ranging from .015 to .02 mg/mL/h (Dr. Hiatt) or .01 to .03 mg/mL/h (Mr. Cook). Since Armstrong's blood alcohol was .18—more than twice the legal limit—two hours and 21 minutes after the collision and almost six hours after he said he took his last drink, Dr. Hiatt was prepared to opine to a reasonable degree of scientific certainty that Armstrong's blood level at the time of the collision was at least a .08 which, assuming the other elements of the offense are shown, establishes a violation of NRS 484C.430(1)(b). “[I]f this was a borderline case, I would not feel comfortable making these statements, but this is clearly not a borderline case.” Using Armstrong's 3:51 a.m. blood alcohol level of .18 and Dr. Hiatt's .015 elimination rate, and accepting that Armstrong had entered the elimination phase by 1:30 a.m., in fact, yields an approximate blood alcohol level at the time of the collision of .21.

Retrograde extrapolation enjoys “general acceptance in the scientific community,” Shea v. Royal Enterprises, Inc., No. 09 Civ. 8709 (THK), 2011 WL 2436709, at *4 (S.D.N.Y. June 16, 2001) (canvassing cases), and has been recognized as the legitimate subject of expert testimony in Nevada, Anderson v. State, 109 Nev. 1129, 1135, 865 P.2d 318, 321 (1993); see Sheriff v. Burcham, 124 Nev. 1247, 198 P.3d 326 (2008), and in state and federal courts across the country, 1 Kenneth S. Broun, McCormick on Evidence § 205, at 849 (6th ed. 2006) (“arguments that the extrapolation process itself is so uncertain as to be inadmissible under [either the] Frye or Daubert [tests for admitting expert testimony] have not prevailed”). Individual facts in individual cases may make it scientifically inappropriate to use a defendant's post-accident blood alcohol

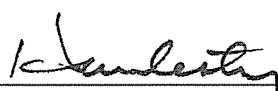
level to infer his blood alcohol level while driving. Classic examples include the case of a defendant who continues to drink after the accident and before the blood draw, skewing his test results, United States v. DuBois, 645 F.2d 642 (8th Cir. 1981); the hypothetical defendant who drinks nothing until seconds before the accident, then “chug-a-lugs” a huge quantity of vodka, and so was just beginning his absorption phase when he crashed, but see State v. Burgess, 5 A.3d 911, 917-18 (Vt. 2010) (rejecting hypothetical “chug-a-lug” theory as a basis for excluding blood alcohol results where there was no evidence to support it and the defendant told the police he had had only had one beer); or where the blood alcohol test results are close to the legal limit and their relevance depends on whether the defendant was in the absorption or elimination phase, of which there is no proof. For a general discussion, see 5 David L. Faigman, Michael J. Sakes, Joseph Sanders & Edward K. Cheng, Modern Scientific Evidence: The Law and Science of Expert Testimony § 41:7 (2010).²

²The majority places great emphasis on Mata v. State, 46 S.W.3d 902 (Tex. Crim. App. 2001). Of critical significance, the expert in Mata did not know “the length of the drinking spree, the time of the last drink, and the person’s weight,” id. at 915, all of which were established here by Armstrong or his hospital records. Also significant, Texas requires expert proof to be by clear and convincing evidence, Morris v. State, 214 S.W.3d 159, 173 (Tex. App. 2007), and Mata has since been limited and held not to preclude blood test result evidence when expert retrograde extrapolation testimony is not offered. Bagheri v. State, 329 S.W.3d 23, 27 (Tex. App. 2010). The evidentiary use Bagheri permits is, of course, one of the uses to which the State wishes to put Armstrong’s blood test results here, a point the majority elides.

Nothing approaching these situations obtains here. The admission or exclusion of evidence is unquestionably entrusted to the sound discretion of the district court. See Williams v. Dist. Ct., 127 Nev. ___, ___, 262 P.3d 360, 364 (2011). Nonetheless, the majority has elected to accept writ review in this case and to affirm a decision that misapplies established law recognizing the admissibility, in proper circumstances, of blood test result and retrograde extrapolation evidence in DUI cases. My research shows no other case to have excluded such evidence on comparable facts and a number that have deemed it scientifically reliable and admissible. State v. Patterson, 708 S.E.2d 133 (N.C. Ct. App. 2011) (canvassing cases); State v. Burgess, 5 A.3d 911 (Vt. 2010); United States v. Cope, No. 11-cr-00106-JRT, 2011 WL 2491283 (D. Colo. June 17, 2011); United States v. Tsosie, 791 F. Supp. 2d 1099 (D.N.M. 2011). Where, as here, an evidentiary issue concerning expert testimony presents questions of law as well as discretion, and is of significant importance to the administration of justice, this court has not hesitated to grant writ relief. Williams, 127 Nev. at ___, 262 P.3d at 364-65. Because I would grant writ relief in this case and direct the district court to admit the evidence it has suppressed, I respectfully dissent.

 _____, J.
Pickering

I concur:

 _____, J.
Hardesty