

**TEXAS CRIMINAL JUSTICE INTEGRITY UNIT
AND TEXAS FORENSIC SCIENCE COMMISSION
JOINT CONFERENCE ON
FORENSIC SCIENCE
JUNE 4-5, 2012
AUSTIN, TEXAS**

**UPDATE ON LEGAL STANDARDS
FOR FORENSIC EVIDENCE**

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LEGAL STANDARDS FOR ADMISSIBILITY OF SCIENTIFIC EVIDENCE

T. R. Evid. 702: If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify thereto in the form of an opinion or otherwise.

Kelly v. State, 824 S.W.2d 568 (Tex. Crim. App. 1992) interpreted Rule 702 and stated that in order for scientific evidence to assist the trier of fact it must be reliable and relevant.

The Criteria

In order to be admissible, expert testimony must be shown to satisfy the following three criteria:

1. The underlying scientific theory must be valid;
2. The technique applying the theory must be valid; and
3. The technique must have been properly applied on the occasion in question.

Kelly v. State, 824 S.W.2d at 573.

Factors Which Could Affect the Trial Court's Determination of Reliability

In *Kelly*, the court listed several factors intended to guide the trial court in its determination of the reliability of expert testimony. Those factors are as follows:

1. The extent to which the underlying scientific theory and technique are accepted as valid by the relevant scientific community;
2. The qualifications of the expert(s) testifying;

3. The existence of literature supporting or rejecting the underlying scientific theory and technique;
4. The potential rate of error of the technique;
5. The availability of other experts to test and evaluate the technique.

***Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579, 592-95 (1993)** was decided after *Kelly* and established a virtually identical test under the Federal Rules of Evidence.

Daubert held that, “Faced with a proffer of expert scientific testimony . . . the trial judge must determine at the outset, pursuant to FRE 104(a), whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or determine a fact in issue. This entails a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue. A key question to be answered in determining whether a theory or technique is scientific knowledge that will assist the trier of fact will be whether it can be (and has been) tested. Another consideration is whether the theory or technique has been subjected to peer review and publication. Additionally, in the case of a particular scientific technique, the court ordinarily should consider the known or potential rate of error . . . and the existence and maintenance of standards controlling the technique’s operation. Finally, ‘general acceptance’ can yet have a bearing on the inquiry. A ‘reliability assessment does not require, although it does permit, explicit identification of a relevant scientific community and an express determination of a particular degree of acceptance within that community.’ Widespread acceptance can be an important factor in

ruling particular evidence admissible, and ‘a known technique that has been able to attract only minimal support within the community,’ may properly be viewed with skepticism. [A] judge assessing a proffer of expert scientific testimony under FRE 702 should also be mindful of other applicable rules. . . . [FRE] 706 allows the court at its discretion to procure the assistance of an expert of its own choosing. . . . ‘Expert evidence can be both powerful and quite misleading because of the difficulty in evaluating it. Because of this risk, the judge in weighing possible prejudice against probative force under [FRE] 403 of the present rules exercises more control over experts than over lay witnesses.’”

***Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999)**

The role of gate keeper regarding expert testimony under FRE 702 described in *Daubert* in relation to opinions based on science, is expressly extended to opinions based on technical and/or other specialized knowledge. The specific criteria to be used by the trial court, may, if appropriate, include those discussed in *Daubert*. The trial judge is, however, free to use any reasonable criterion which relates logically to the nature of the basis for the offered opinion.

Expert Testimony Based on Soft Science

***Nenno v. State*, 970 S.W.2d 549, 561 (Tex. Crim. App. 1998)**

In the area of expert testimony based on “soft science” such as the social sciences or fields that are based primarily upon experience and training as opposed to scientific method, the Court of Criminal Appeals has developed a modified *Kelly* criteria by which to determine the admissibility of the testimony. The court has determined that the appropriate questions

are:

1. whether the field of expertise is a legitimate one;
 2. whether the subject matter of the expert's testimony is within the scope of that field;
- and
3. whether the expert's testimony properly relies upon and/or utilizes the principles involved in the field.

Additional Cases Interpreting Rule 702

***Vela v. State*, 209 S.W.3d 128, 130-34 (Tex. Crim. App. 2006)**

TRE's 104(a), 401, 402, and 702 "set out three separate conditions regarding admissibility of expert testimony. These rules require a trial judge to make three separate inquiries, which must all be met before admitting expert testimony: (1) the witness qualifies as an expert by reason of his knowledge, skill, experience, training, or education; (2) the subject matter of the testimony is an appropriate one for expert testimony; and (3) admitting the expert testimony will actually assist the fact-finder in deciding the case. These conditions are commonly referred to as (1) qualification, (2) reliability, and (3) relevance.

An appellate court should consider three criteria when determining whether a trial court abused its discretion in evaluating a witness's qualifications as an expert: (1) is the field of expertise complex?; (2) how conclusive is the expert's opinion?; and (3) how central is the area of expertise to the resolution of the lawsuit?

Qualification is distinct from reliability and relevance and . . . should be evaluated independently. While qualification deals with the witness's background and experience,

reliability focuses on the subject matter of the witness's testimony.

Tex. Rules of Evid. 705(c) governs the reliability of expert testimony . . . Reliability depends upon whether the evidence has its basis in sound scientific methodology. This demands a certain technique showing that . . . gives a trial judge the opportunity to weed out testimony pertaining to so-called junk science.

Scientific evidence must meet three criteria to be reliable: (a) the underlying scientific theory must be valid; (b) the technique applying the theory must be valid; and (c) the technique must have been properly applied on the occasion in question. A list of non-exclusive factors that could affect a trial judge's decision on reliability includes (1) the extent to which the underlying scientific theory and technique are accepted as valid by the relevant scientific community, if such a community can be ascertained; (2) the qualifications of the experts testifying; (3) the existence of literature supporting or rejecting the underlying scientific theory and technique; (4) the potential rate of error of the technique; (5) the availability of other experts to test and evaluate the technique; (6) the clarity with which the underlying scientific theory and technique can be explained to the court; and (7) the experience and skill of the person(s) who applied the technique on the occasion in question.

And even if the traditional *Kelly* reliability factors do not perfectly apply to particular testimony, the proponent is not excused from proving its reliability. . . . The reliability inquiry is, thus, a flexible one. In some cases, the reliability of scientific knowledge will be at issue; in others, the relevant reliability concerns may focus upon personal knowledge or experience. But the proponent must establish some foundation for the reliability of an

expert's opinion. Experience alone may provide a sufficient basis for an expert's testimony in some cases, but it cannot do so in every case.”

***Hernandez v. State*, 116 S.W.3d 26, 29 (Tex. Crim. App. 2003)**

“Once a scientific principle is generally accepted in the pertinent professional community and has been accepted in a sufficient number of trial courts through adversarial *Daubert/Kelly* hearings, subsequent courts may take judicial notice of the scientific validity (or invalidity) of that scientific theory based upon the process, materials, and evidence produced in those prior hearings.

Similarly, once some courts have, through a *Daubert/Kelly* ‘gatekeeping’ hearing, determined the scientific reliability and validity of a specific methodology to implement or test the particular scientific theory, other courts may take judicial notice of the reliability (or unreliability) of that particular methodology.”

***Morales v. State*, 32 S.W.3d 862, 865 (Tex. Crim. App. 2000)**

“When examining the Rule 702 issue, the trial court must determine whether the expert makes an effort to tie pertinent facts of the case to the scientific principles which are the subject of his testimony. Restated, the testimony must be sufficiently tied to the facts to meet the simple requirement that it be helpful to the jury.”

***Weatherred v. State*, 15 S.W.3d 540, 542 (Tex. Crim. App. 2000)**

“Under Rule 702, the proponent of scientific evidence must show, by clear and convincing proof, that the evidence he is proffering is sufficiently relevant and reliable to assist the jury in accurately understanding other evidence or in determining a fact in issue.

The reliability of ‘soft’ scientific evidence . . . may be established by showing that (1) the field of expertise involved is a legitimate one, (2) the subject matter of the expert’s testimony is within the scope of that field, and (3) the expert’s testimony properly relies upon or utilizes the principles involved in that field.”

***Gregory v. State*, 56 S.W.3d 164, 179-81 (Tex. App. - Houston [14th Dist.] 2001, pet. dism’d)**

“A medical license or degree is not the litmus test for qualification as an expert witness. *Experience* alone can provide a sufficient basis to qualify a witness as an expert.

A nurse with extensive experience in the identification and treatment of child sexual abuse victims could be *more* qualified to determine whether a child has been sexually abused than a medical doctor whose field of specialization does not touch on that subject. While a nurse is precluded from making a medical diagnosis or otherwise practicing medicine, she is not precluded from *testifying* about her mandatory duties to perform assessments, make nursing diagnoses, document a patient’s symptoms, administer medications and treatments, and implement other measures to make the patient safe. We find that [nurse] was qualified to testify as an expert under Rule 702.”

***Reynolds v. State*, 204 S.W.3d 386, 390-91 (Tex. Crim. App. 2006)**

“We hold that, when evidence of alcohol concentration as shown by the results of analysis of breath specimens taken at the request or order of a peace officer is offered in the trial of a DWI offense, (1) the underlying scientific theory has been determined by the legislature to be valid; (2) the technique applying the theory has been determined by the

legislature to be valid when the specimen was taken and analyzed by individuals who are certified by, and were using methods approved by the rules of, DPS; and (3) the trial court must determine whether the technique was properly applied in accordance with the department's rules, on the occasion in question.”

***State v. Medrano*, 127 S.W.3d 781, 787 (Tex. Crim. App. 2004)**

“Under the *Zani v. State*, 758 S.W.2d 233 (Tex. Crim. App. 1988), standard, the Court instituted procedural safeguards to protect against ‘the four-prong dangers of hypnosis; hypersuggestibility, loss of critical judgment, confabulation, and memory cementing.’ . . . The *Zani* standard permits admission of hypnotically enhanced testimony ‘if, after consideration of the totality of the circumstances, the trial court should find by clear and convincing evidence that hypnosis neither rendered the witness’s posthypnotic memory untrustworthy nor substantially impaired the ability of the opponent fairly to test the witness’s recall by cross-examination.’ *Zani* remains the standard to be applied by Texas trial courts in assessing the reliability and determining the admissibility of hypnotically enhanced testimony.”

***Mata v. State*, 46 S.W.3d 902, 916 (Tex. Crim. App. 2001)**

“We believe that the science of retrograde extrapolation can be reliable in a given case. The expert’s ability to apply the science and explain it with clarity to the court is a paramount consideration. In addition, the expert must demonstrate some understanding of the difficulties associated with a retrograde extrapolation. He must demonstrate an awareness of the subtleties of the science and the risks inherent in any extrapolation. Finally,

he must be able to clearly and consistently apply the science.

***Schutz v. State*, 957 S.W.2d 52, 59 (Tex. Crim. App. 1997)**

“Expert testimony does not assist the jury if it constitutes ‘a direct opinion the truthfulness’ of a child complainant’s allegations.

***Yount v. State*, 872 S.W.2d 706, 712 (Tex. Crim. App. 1993)**

TRCE 702, now TRE 702, “does not permit an expert to give an opinion that the complainant or class of persons to which the complainant belongs is truthful.”

***Barshaw v. State*, 342 S.W.3d 91 (Tex. Crim. App. 2011)**

It was an abuse of discretion for trial court to allow expert testimony that mentally retarded persons as a class are truthful.

Recent Cases

Expert Testimony on Reliability of Eyewitness Identification Procedures

***Tillman v. State*, 354 S.W.3d 425 (Tex. Crim. App. 2011)**

Facts: Tillman convicted of capital murder based on eyewitness testimony. Tillman offered testimony from Dr. Roy Malpass as an expert on eyewitness identifications. Malpass testified that he was professor of psychology at University of Texas, El Paso, has researched eyewitness related issues since 1969 and has conducted a number of experimental studies in the area. He also leads the Eyewitness Identification and Research Laboratory at the University.

Malpass’ proposed testimony was to the general suggestiveness of the identification procedure used.

The trial court excluded Malpass' testimony. The Fourteenth Court of Appeals affirmed the ruling of the trial court.

Holding of Court of Criminal Appeals

Admission of this testimony is governed by Rule 702, T. R. Evid. Proponent of the testimony must demonstrate that the testimony is sufficiently reliable and relevant to help the jury in reaching accurate results. The proponent must prove two prongs, (1) the testimony is based on a reliable scientific foundation and (2) it is relevant to the issues in the case.

The focus of the reliability analysis is whether the evidence has its basis in sound scientific methodology, such that junk science is weeded out. Since psychology is a soft science, in order to establish reliability, the proponent must establish that (1) the field of expertise involved is a legitimate one, (2) the subject matter of the expert's testimony is within the scope of that field, and (3) the expert's testimony properly relies upon the principles involved in that field.

The court held that psychology is a legitimate field of study and the reliability of eyewitness identification is a legitimate subject within the area of psychology.

Malpass' testimony properly relied upon and utilized the principles involved in the relevant field of psychology. Malpass' testimony was also relevant because he sufficiently tied the pertinent facts of the case to the scientific principles which were the subject of his testimony. *See also Jordan v. State*, 928 S.W.2d 550 (Tex. Crim. App. 1996) (finding expert testimony on the reliability of eyewitness identification admissible).

Thus, the testimony was admissible.

Perry v. New Hampshire, 132 S.Ct. 716 (2011)

Facts: Police received a call reporting that an African-American male was trying to break into cars parked in the lot of the caller's apartment building. When an officer responding to the call asked eyewitness to describe the man, witness pointed to her kitchen window and said the man she saw breaking into the car was standing in the parking lot, next to a police officer. Perry's arrest followed this identification.

Perry moved to suppress witness's identification on the ground that admitting it at trial would violate due process. Perry's challenge, the court found, failed because the eyewitness's identification did not result from an unnecessarily suggestive procedure employed by the police.

On appeal, Perry argued that the trial court erred in requiring an initial showing that police arranged a suggestive identification procedure. Suggestive circumstances alone, Perry contended, suffice to require court evaluation of the reliability of an eyewitness identification before allowing it to be presented to the jury. The New Hampshire Supreme Court rejected Perry's argument and affirmed his conviction.

Holding: The Supreme Court held that the Due Process Clause does not require a preliminary judicial inquiry into the reliability of an eyewitness identification when the identification was not procured under unnecessarily suggestive circumstances arranged by law enforcement.

(a) The Constitution protects a defendant against a conviction based on evidence of questionable reliability, not by prohibiting introduction of the evidence, but by affording

the defendant means to persuade the jury that the evidence should be discounted as unworthy of credit. Only when evidence “is so extremely unfair that its admission violates fundamental conceptions of justice,” *Dowling v. United States*, 493 U.S. 342, 352, (___) does the Due Process Clause preclude its admission.

Dog Scent Discrimination v. Dog Scent Tracking

***Winfrey v. State*, 323 S.W.3d 875 (Tex. Crim. App. 2010)**

Facts: Victim found murdered in his home. Investigators collected forensic evidence from the crime scene, including a partial bloody fingerprint, bloody shoe print and several hair samples, none of which matched Winfrey. Additionally, DNA procured from the crime scene did not match Winfrey or his family members. Winfrey and his children later became suspects and were charged with murder.

To assist in the investigation, Texas Ranger Grover Huff contacted Deputy Keith Pikett, a dog handler with the Fort Bend County Sheriff’s office, Deputy Pikett testified about a ‘scent lineup’ that he conducted nearly three years after the murder in August 2007. He used his three bloodhounds, Quincy, James Bond, and Clue. This involved obtaining scent samples from clothing that the victim was wearing at the time of his death and from six white males, including appellant. The dogs were ‘pre-scented’ on the scent samples obtained from the victim’s clothing. The dogs then walked a line of paint cans containing the scent samples of the six white males. All three dogs alerted on the can containing appellant’s scent sample.

Based on this, Deputy Pikett concluded that appellant’s scent was on the victim’s

clothing. Deputy Pikett testified on cross-examination that an alert only establishes some relationship between the scent and objects and that scent detection does not necessarily indicate person-to-person contact. Deputy Pikett also testified on cross-examination that his understanding of the law was that convicting a person solely on a dog scent is illegal.

Holding: The Court of Criminal Appeals found that there was essentially no other evidence to connect Winfrey to the murder besides the dog scent evidence. The court found the evidence legally insufficient to support the conviction and stated the following:

Like our sister courts across the country, we now hold that scent-discrimination lineups, whether conducted with individuals or inanimate objects, to be separate and distinct from dog-scent tracking evidence. “Even the briefest review of the scientific principles underlying dog scenting reveals that, contrary to the conclusions of many courts, there are significant scientific differences among the various uses of scenting: tracking, narcotics detection, and scent lineups.” Andrew E. Taslitz, *Does the Cold Nose Know? The Unscientific Myth of Dog Scenting*, 42 *Hastings L.J.* 15, 42 (1990) (explaining that drug detection canines need only determine whether a specific scent is present. Tracking dogs, on the other hand, have the benefit of using both vegetative scents and human scent, while canines performing scent lineups must find one specific scent among many competing, similar scents). The FBI agrees, noting that tracking canines use human scent *and* environmental cues to locate the track of an individual. Allison M. Curran, et al., *Analysis of the Uniqueness and Persistence of Human Scent*, 7 *Forensic Sci. Comm.* 2 (2005). Accordingly, we conclude that scent-discrimination lineups, when used alone or as primary evidence, are legally insufficient to support a conviction. Like the Supreme Court of Washington, we believe that “[t]he dangers inherent in the use of dog tracking evidence can only be alleviated by the presence of corroborating evidence.” *Loucks*, 656 P.2d at 482. To the extent that lower-court opinions suggest otherwise, we overrule them and expressly hold that when incuplatory evidence is obtained from a dog-scent lineup, its role in the court room is merely supportive.

See also, State v. Dominguez, ___ S.W.3d ___, 2011 WL 3207766 (Tex. App. - Houston [1st Dist.] 2011) (upholding trial court’s suppression of evidence of dog scent

identification).

New Scientific Evidence

***Ex parte Robbins*, 360 S.W.3d 446 (Tex. Crim. App. 2011, cert. denied May 14, 2012)**

Facts: Tristen Rivet and her mother, Barbara Ann Hope, lived with Robbins at the home of his mother. On the day of Tristen's death, Ms. Hope left Tristen in Robbins's care. *Id.* At 2:00 p.m., an independent witness observed Tristen playing and eating a snack while in Robbins's care. Ms. Hope returned and relieved Robbins around 4:00 p.m.

Ms. Hope went to wake Tristen around 6:00 p.m. She found Tristen unconscious in her crib with her face, including her nose and mouth, partially covered by her bedding. Ms. Hope rushed Tristen to the living room and began breathing into Tristen's mouth. She then took Tristen outside where Robbins's mother and a neighbor began performing vigorous, adult CPR on Tristen on the ground. Another neighbor came outside to investigate and, drawing on her experience as a medical technician, told the others to stop performing adult CPR because they were compressing Tristen's chest too forcefully and warned that these efforts could actually kill Tristen.

Moments later, the paramedics arrived. Tristen was pronounced dead at 6:53 p.m. shortly after arriving at the hospital.

Robbins was subsequently indicted for capital murder for allegedly causing Tristen's death. The medical examiner, Dr. Patricia Moore, testified that Tristen died from asphyxia due to compression of the chest and abdomen and ruled Tristen's death a homicide. Dr.

Moore's testimony was the only direct evidence at trial that a crime had occurred.

Dr. Robert Bux, the deputy chief medical examiner of Bexar County, Texas, gave contrary testimony. However, the jury found Robbins guilty of capital murder, and the trial court sentenced him to life in prison.

Robbins's Habeas Proceedings

Following Robbins's conviction, four additional experts were contacted to re-evaluate Dr. Moore's autopsy findings and trial testimony. Each expert, as well as Dr. Moore herself, concluded that Dr. Moore's original findings and testimony had been incorrect.

Dr. Dwayne Wolf, the deputy chief medical examiner for Harris County, re-evaluated the autopsy findings in March 2007 and concluded that the evidence did not support a finding that the death resulted from asphyxiation by compression or from any other specific cause. Dr. Joye Carter, the former Harris County Medical Examiner and Dr. Moore's supervisor at the time of Mr. Robbins's trial, agreed that the autopsy findings and facts of the case did not show that a homicide occurred, or indicate Tristen's particular cause of death.

Dr. Moore also admitted that her own original findings and testimony were erroneous. In a May 2007 letter sent to the Montgomery County District Attorney, Dr. Moore stated that given her "review of all the material from the case file and having had more experience in the field of forensic pathology," she felt that "an opinion for a cause and manner of death of . . . undetermined is best for this case."

Robbins filed an application for a writ of habeas corpus in June 2007 with the 410th Judicial District Court in Montgomery County, Texas, asserting that in light of this newly

discovered evidence, “no rational juror would find [Mr. Robbins] guilty beyond a reasonable doubt of the offense.” Robbins also explained that his “right to a fair trial by a fair and impartial jury . . . was violated because his conviction was based on testimony material to the State’s case that has now been determined to be false.”

In its initial response, the State recommended that Robbins be granted a new trial because “the jury was led to believe and credit facts that were not true.” Rather than accept the State’s recommendations, the trial court appointed Dr. Thomas Wheeler, the Chairman of the Department of Pathology at Baylor College of Medicine in Houston, to determine, if possible, the means and manner of Tristen’s death. After conducting an independent examination, Dr. Wheeler also concluded that Dr. Moore’s trial testimony was “not justified by the objective facts and pathological findings” and that there were no physical findings to support the conclusion that a homicide had occurred.

In August 2008, Robbins and the State, again, recommended to the trial court that Robbins be granted a new trial. Yet again, rather than agree to the joint recommendations from the parties, the trial court ordered that the parties engage in discovery. Dr. Wheeler and Dr. Wolf were subsequently deposed and each reaffirmed their findings that the evidence did not support a finding that a homicide had occurred. In Dr. Moore’s deposition, she confirmed that her trial testimony was not justified by the objective facts and pathological findings.

Around this same time, Justice of the Peace Edith Connelly reopened the inquest into Tristen’s death and appointed Dr. Linda Norton to examine the evidence. Dr. Norton also

disagreed with Dr. Moore's trial testimony. Dr. Norton stated that the cause of death was asphyxia by suffocation and placed the estimated time of death between 2:30 p.m. and 5:00 p.m. Dr. Norton ultimately concluded that she believed Tristen had been killed, but determined that she could not conclude beyond a reasonable doubt that Robbins was in any way responsible.

Dr. Norton was the only expert of the six pathologists consulted by the habeas court to conclude that Tristen died from a homicide.

On January 15, 2010, the State, for the first time, urged that relief be denied to Robbins. The trial court, however, found that Robbins was entitled to a new trial because the verdict against him was "not obtained by fair and competent evidence, but by admittedly false testimony that was unsupported by objective facts and pathological findings and not based on sufficient expertise or scientific validity."

Court's Holding: The Texas Court of Criminal Appeals in a 5-4 decision, rejected the trial court's recommendations and denied relief. The five-judge majority concluded that because Robbins "failed to prove that the new evidence unquestionably establishes his innocence," he was not entitled to relief on his claim of actual innocence of the crime for which he was convicted.

The majority then departed from the trial court's findings and held that false testimony had not been used to convict Mr. Robbins. Notwithstanding the agreement, among the consulted experts that Dr. Moore's findings and testimony were incorrect, the majority refused relief because none of the experts affirmatively proved the negative proposition that

“Tristen could not have been intentionally asphyxiated.” Thus, the majority concluded Robbins did not “have a due process right to have a jury hear Moore’s re-evaluation.”

In a dissent joined by two other judges, Judge Cochran identified her “extremely serious concern” about the increased “disconnect between the worlds of science and of law” that allows a conviction to remain in force when the scientific basis for that conviction has since been rejected by the scientific community. Adding to this concern was the dissent’s observation that this disconnect “has grown in recent years as the speed with which new science and revised scientific methodologies debunk what had formerly been thought of as reliable forensic science has increased.” As a result, the dissent argued that “[f]inality of judgment is essential in criminal cases, but so is accuracy of the result - an accurate result that will stand the test of time and changes in scientific knowledge.”

Looking at the facts of Robbins’s conviction, the dissent believed this case created an appropriate opportunity to address this growing concern. Because Dr. Moore’s findings and trial testimony have been uniformly rejected, including by Dr. Moore herself, the dissent urged that Robbins “did not receive a fundamentally fair trial based upon reliable scientific evidence.”

Indeed, Judge Cochran explained that she “suspect[ed] that the [United States] Supreme Court will one day hold that a conviction later found to be based upon unreliable scientific evidence deprives the defendant of a fundamentally fair trial and violates the Due Process Clause of the Fourteenth Amendment because it raises an intolerable risk of an inaccurate verdict and undermines the integrity of our criminal justice system.”

Judge Alcala dissented separately, concluding that Robbins “is entitled to relief on his application for a writ of habeas corpus on the ground that he was denied due process of law by the State’s use of false testimony to obtain his conviction.”

In the Petition for Writ of Certiorari filed on behalf of Robbins,¹ the following summary of the state of the law was set out:

I. BOTH FEDERAL AND STATE COURTS DISAGREE AS TO WHETHER THE DUE PROCESS CLAUSE REQUIRES A NEW TRIAL WHEN A CONVICTION IS BASED ON ADMITTEDLY UNRELIABLE EVIDENCE.

Federal and state courts are deeply divided as to whether a defendant is entitled to relief upon the revelation that misleading or discredited evidence played a significant role in the underlying conviction. In stark contrast to the Texas Court of Criminal Appeals, the Seventh and Second Circuits hold that due process can be violated by the use of testimony or evidence whose validity has been seriously called into question, even where it has not necessarily been recanted or wholly discredited. *See, e.g., United States v. Freeman*, 650 F.3d 673, 678-80 (7th Cir. 2011); *Drake v. Portuondo*, 553 F.3d 230, 233 (2d Cir. 2009). Holdings from state courts in Wisconsin, New Jersey, West Virginia, Arizona, and Minnesota are in accord.² The Fifth, Ninth, and Sixth Circuits, however, hold that a new trial is not warranted unless the expert testimony can be shown to be “actually false.” *Fuller v. Johnson*, 114 F.3d 491, 496 (5th Cir. 1997); *see also United States v. Berry*, 624 F.3d 1031, 1039-42 (9th Cir. 2010); *Byrd v. Collins*, 209 F.3d 486, 517 (6th Cir. 2000). The Texas Court of Criminal Appeals and the Supreme Court of Missouri also adhere to this approach.³

A. In the Second and Seventh Circuits and other jurisdictions taking a similar approach, defendants are granted relief where the evidence in the original trial has been called into question in such a way as to undermine the apparent accuracy and integrity of the jury verdict. *See, e.g., Freeman*, 650

¹This petition was denied on May 14, 2012.

²*See State v. Edmunds*, 746 N.W.2d 590, 598-99 (Wis. Ct. App. 2008); *State v. Krone*, 897 P.2d 621, 621 (Ariz. 1995); *State v. Gookins*, 637 A.2d 1255, 1259 (N.J. 1994); *Matter of Investigation of W. Va. State Police Crime Lab., Serology Div.*, 438 S.E.2d 501, 504 (W.Va. 1993); *State v. Caldwell*, 322 N.W.2d 574, 587 (Minn. 1982);

³*See Ex Parte Robbins*, 2011 WL 2555665, at *12-15; *Trotter v. State*, 736 S.W.2d 536, 539 (Mo. Ct. App. 1987).

F.3d at 678-80; *State v. Edmunds*, 746 N.W.2d 590, 598-99 (Wis. Ct. App. 2008). These jurisdictions remedy the apparent due process violations that arise from the continued imprisonment of an individual that was convicted on the basis of evidence that has subsequently been shown to be incorrect without requiring defendants to satisfy an unnecessarily rigorous standard of “falsity” that neglects the proper focus of due process analysis.

The Seventh Circuit holds that, before granting a new trial on due process grounds, it need not “be conclusively established that the . . . witness was lying.” *Freeman*, 650 F.3d at 678-80. In fact, in *Freeman*, the Seventh Circuit squarely *rejected* the suggestion that a defendant must prove that the challenged evidence was verifiably false in order to trigger due process relief. *Id.* at 679. The Seventh Circuit explained that there “does not need to be conclusive proof that the testimony was false” for it to constitute a due process violation. *Id.* at 679-80.

The Second Circuit agrees with the Seventh Circuit. In *Drake*, a federal habeas petitioner sought relief on the grounds that a prosecution expert testified falsely at trial. 553 F.3d at 233. Among the expert’s “false” statements were statements of fact that were affirmatively proven to be incorrect, statements of exaggerated credentials, and testimony concerning a dubious medical condition known as “picquerism.” *Id.* at 237-39. After noting the “improbability of [the expert’s] testimony as to the scientific validity of ‘picquersim,’” the court found that the prosecution erred by not at least contacting “any other health professional or inquire about the concept.” *Id.* at 238, 243. It subsequently reversed and remanded for a new trial. *Id.* at 247-48.

Similarly, in *Edmunds*, 746 N.W.2d at 592-93, the defendant was convicted of reckless homicide of an infant after expert medical testimony at trial suggested the infant’s injuries could only be explained by shaken baby syndrome (SBS). During post-conviction proceedings, Edmunds presented expert testimony from multiple doctors revealing a newly developed debate in the medical community that undermined the state’s expert trial witness. *Id.* at 593. Although “the new evidence d[id] not completely dispel the old evidence,” the court found that a new trial was warranted because the new evidence undermined Edmunds original conviction. *Id.* at 599.

And *In Matter of Investigation of West Virginia State Police Crime Laboratory, Serology Division*, 438 S.E.2d 501, 502-03 (W.Va. 1993), a state investigation uncovered numerous allegations of misconduct by a former state serologist who had testified in multiple criminal trials. Because the allegations of misconduct included acts such as “overstating the strength of results,” it could not be proven that the trial testimony from the serologist was always factually incorrect. *Id.* at 503. Nevertheless, the court held that any prior testimony offered by the serologist “should be deemed invalid, unreliable, and

inadmissible in determining whether to award a new trial in any subsequent habeas corpus proceeding.” *Id.* at 506. The court made the basis for its holding clear by stating that, “once the use of false evidence is established, as here, such use constitutes a violation of due process.” *Id.*

B. Conversely, courts aligning with the Texas Court of Criminal Appeals hold that due process is not violated “merely” because an individual is convicted using evidence or testimony that was later deemed unreliable and thus misled the jury into reaching a guilty verdict. Rather than focusing on the integrity of the jury verdict, these jurisdictions assign dispositive weight to a highly stylized meaning of the phrase “actually false.” In so doing, these jurisdictions improperly place the burden on a convicted defendant to affirmatively prove that testimony given at trial is technically “false” rather than simply factually wrong or unreliable.

In *United States v. Berry*, the petitioner claimed that his due process rights were violated because his conviction was based largely on expert testimony that had been subsequently deemed unreliable. 624 F.3d at 1039-40. The petitioner had originally been convicted, in part, on the basis of “compositional analysis of bullet lead” (“CABL”) evidence. *Id.* at 1035. Following the petitioner’s conviction, the FBI discontinued the use of CABL evidence because it was found to be inaccurate. *Id.* at 1037. Although the Ninth Circuit acknowledged that the expert testimony suffered from “significant criticisms,” the Court denied relief because the petitioner failed to show that the evidence was “almost entirely unreliable.” *Id.* at 1041.

The Fifth Circuit reached a similar conclusion in *Fuller*. In *Fuller*, the defendant was convicted of murder and sexual assault. *Id.* at 494. At trial, the defendant asserted his innocence and claimed that another man killed the victim with a metal pipe. *Id.* at 495. This defense was refuted by the prosecution’s expert, a coroner, who testified that the injuries were likely caused by fists rather than a pipe. *Id.* In his federal application for a writ of habeas, Fuller claimed that his due process rights were violated because the testifying coroner failed to adhere to standard scientific procedures in forming his opinion as expressed at trial. *Id.* at 496. In support, Fuller provided expert testimony to show that the coroner could not have testified accurately at trial without first following the correct procedures. *Id.* Nevertheless, the Fifth Circuit denied relief because Fuller could not prove that the coroner’s testimony at trial was “actually false.” *Id.* at 496-97.

Similarly, in *Byrd*, the petitioner also claimed his due process rights were violated when he was convicted with the use of false testimony. 209 F.3d at 500-01. The petitioner presented evidence to show that witnesses from his original trial were “involved in a scheme to testify falsely against [him] in order to further their own causes with the [prosecutor’s office].” *Id.* But the Sixth Circuit denied relief because the petitioner failed to show the statements

were ‘indisputably false,’ rather than merely misleading.” *Id.* at 517-18.

C. This fundamental split is becoming more fractured because federal district courts and state courts have no clear guidance as they grapple with the use of unreliable evidence in criminal trials. In accord with the Seventh and Second Circuits, several courts find that due process can be violated through the use of unreliable expert evidence, even if that evidence cannot be affirmatively proven to be false. *See, e.g., Stitt v. United States*, 369 F.Supp.2d 679, 699-700 (E.D. Va. 2005) (concluding that a sufficient basis for collateral attack of a conviction exists when an expert’s original testimony has been retracted and shown to be erroneous); *Edmunds*, 746 N.W. 2d at 598-99 (explaining that significant developments in the medical field concerning shaken baby syndrome cast sufficient doubt on the conviction, requiring a new trial); *State v. Gookins*, 637 A.2d 1255, 125 (N.J. 1994) (finding that due process prevents the use of unreliable evidence in obtaining criminal convictions or guilty pleas); *Matter of Investigation of W. Va. State Police Crime Lab., Serology Div.*, 438 S.E.2d at 504 (finding violation when it was shown a state serologist made misleading statements at trial); *State v. Caldwell*, 322 N.W.2d 574, 587 (Minn. 1982) (holding that a defendant is entitled to a new trial where it can be shown that the testifying expert “was mistaken in his testimony” (quoting *Martin v. United States*, 17 F.2d 973, 976 (5th Cir. 1927))).

These holdings are directly at odds with holdings from the Texas Court of Criminal Appeals and other courts. *See, e.g., Couch v. Booker*, 650 F.Supp. 2d 683, 699 (E.D. Mich. 2009) (explaining that a habeas petitioner bears the burden of showing testimony given at trial was false for purposes of a due process violation); *Trotter v. State*, 736 S.W.2d 536, 539 (Mo. Ct. App. 1987) (rejecting due process claim because, although expert later recanted trial testimony, the “testimony of [the expert] was true and correct as to the best of [the expert’s] knowledge at the time of the trial”).

Further, these conflicting applications of the Due Process Clause have become more troublesome in recent years. Without this Court’s guidance, this already fractured split among federal and state courts threatens to grow even more complicated and lead to further inconsistent results between and within individual jurisdictions. Courts adjudicating due process claims arising from the use of unreliable expert testimony are doing so in an increasingly wide range of circumstances. Specifically, the cases that have addressed this issue are split into three categories. First, various courts have been called upon to determine whether a new trial is required when an expert witness withdraws earlier opinions offered at trial because of mistake or inaccuracy. *See, e.g., Souter v. Jones*, 395 F.3d 577, 593 (6th Cir. 2005); *Ege v. Yukins*, 380 F.Supp. 2d 852, 871 (E.D. Mich. 2005); *Stitt*, 369 F.Supp2d at 699-700; *People v. Moldowan*, 643 N.W.2d 570, 571 (Mich. 2002).

Second, courts have addressed situations where newly available evidence undermines expert testimony from trial. *See, e.g., House v. Bell*, 547 U.S. 518, 536-54 (2006); *State v. Krone*, 897 P.2d 621, 621 (Ariz. 1995); *Murphy v. State*, 24 So.3d 1220, 1222-23 (Fla. Dist. Ct. App. 2009); *Caldwell*, 322 n.W.2d at 587; *Edmunds*, 746 N.W.2d at 590.

Third, courts have had to decide whether a defendant should be afforded a new trial when an expert willfully testifies falsely. *See, e.g., Mitchell v. Gibson*, 262 F.3d 1036, 1064 (10th Cir. 2001); *United States v. Stewart*, 323 F.Supp.2d 606, 614-16 (S.D.N.Y. 2004); *United States v. Jones*, 84 F.Supp.2d 124, 126-27 (D.D.C. 1999); *United States v. Williams*, 77 F.Supp.2d 109, 111-13 (D.D.C. 1999). Combined with the existing disagreement among the courts, this proliferation of diverse circumstances illustrates how quickly this issue will become unworkable in the lower courts. The application of due process will become progressively varied, and many courts will look to factors that have no bearing on the ultimate due process concern: the actual guilt of a criminal defendant.

The Court's intervention is necessary to bring uniformity among state and federal courts tasked with enforcing the Due Process Clause. Thus, this deep split among federal and state courts is ripe for the Court to resolve.

***Ex Parte Henderson*, 246 S.W.3d 690 (Tex. Crim. App. 2007)**

Facts: Henderson was convicted of capital murder and sentenced to death. The allegation was that she caused the death of a child, Brandon Baugh. Henderson's defense was that Brandon's death was the result of an accidental fall.

At the time of trial, Dr. Roberto Bayardo, the medical examiner for Travis County, testified that it was impossible for Brandon's extensive brain injuries to have occurred in the way Henderson stated. In his opinion, Brandon's injuries had to have resulted from a blow intentionally struck by Henderson. He testified that, "I would say the baby was caught up with the hands by the arms along the body and then swung and slammed very hard against a flat surface."

In a subsequent writ, Henderson submitted affidavits and reports that indicated that

recent advances in the area of biomechanics and physics suggest that it is possible that Brandon's head injuries could have been caused by an accidental short-distance fall. Additionally, Dr. Bayardo submitted an affidavit which recanted his trial testimony. His affidavit stated:

“Since 1995, when I testified at Cathy Henderson’s trial, the medical profession has gained a greater understanding of pediatric head trauma and the extent of injuries that can occur in infants as a result of relatively short distance falls, based in part on the application of principles of physics and biomechanics. Specifically, and as shown in the reports that I have read, even a fall of a relatively short distance onto a hard surface can cause the degree of injury that Brandon Baugh experienced. If this new scientific information had been available to me in 1995, I would have taken it into account before attempting to formulate an opinion about the circumstances leading to the injury.

I have reviewed the affidavit of John Plunkett dated May 18, 2007, and I agree with his opinion. Based on the physical evidence in the case, I cannot determine with a reasonable degree of medical certainty whether Brandon Baugh’s injuries resulted from an intentional act or an accidental fall. In fact, had the new scientific information been available to me in 1995, I would not have been able to testify the way I did about the degree of force needed to cause Brandon Baugh’s head injury.”

The Court of Criminal Appeals majority held that Dr. Bayardo’s re-evaluation of his 1995 opinion is a material exculpatory fact and ordered the trial court to further develop the evidence.

Judge Price concurred, and stated that,

“Under these circumstances, it is at least arguable that the evidence is not even legally sufficient to sustain a conviction; that is, a rational jury could not convict the applicant of capital murder. In any event, it is evident that the applicant has presented a plausible claim that no reasonable juror *would* have found her guilty of a *capital* homicide - at least not to a level of confidence beyond a reasonable doubt.”

The dissenting Judges argued that the new scientific evidence did not establish any recognized claim for relief under Chapter 11 of the Code of Criminal Procedure.

***Ex Parte Overton*, 2012 WL 1521978 (Tex. Crim. App. 2012)**

Overton was convicted of capital murder based on allegedly intentionally causing a child to ingest acute levels of sodium or by failing to seek medical care. A writ was filed alleging actual innocence, suppression of exculpatory evidence and ineffective assistance of counsel. The Court of Criminal Appeals remanded the case to the trial court to resolve the contested issues. Notably, Judge Cochran, joined by Judges Price and Johnson, filed a statement concurring in the remand order stating:

“I agree that this application for a writ of habeas corpus should be remanded to the trial court for further development on the claims set out in the remand order. I think that we should give more explicit guidance to the trial court, however, as this appears to be a capital-murder conviction that depends, in many respects, upon the scientific validity and accuracy of the medical testimony offered into evidence at the original trial.

The judiciary must be ever vigilant to ensure that verdicts in criminal cases are based solely upon reliable, relevant scientific evidence—scientific evidence that will hold up under later scrutiny. I have previously expressed my concern about ‘the fundamental disconnect between the worlds of science and of law.’ *Ex Parte Robbins*, No. AP-76464, ___ S.W.3d ___, 2011 WL 2555665 at *19 (Tex. Crim. App. June 29, 2011) (Cochran, J., dissenting)

This disconnect between changing science and reliable verdicts that can stand the test of time has grown in recent years as the speed with which new science and revised scientific methodologies debunk what had formerly been thought of as reliable forensic science has increased. The potential problem of relying on today’s science in a criminal trial (especially to determine an essential element such as criminal causation or the identity of the perpetrator) is that tomorrow’s science sometimes changes and, based upon that changed science, the former verdict may look inaccurate, if not downright ludicrous. But the convicted person is still imprisoned. Given the facts viewed in the fullness of time,

today's public may reasonably perceive that the criminal justice system is sometimes unjust and inaccurate. Finality of judgment is essential in criminal cases, but so is accuracy of the result - an accurate result that will stand the test of time and changes in scientific knowledge.

Id. The problem in this case, as in *Robbins*, is not that the science itself has evolved, but that it is alleged that the scientific testimony at the original trial was not fully informed and did not take into account all of the scientific evidence now available.

***Ex Parte Spencer*, 337 S.W.3d 869 (Tex. Crim. App. 2011)**

Facts: Spencer convicted of aggravated robbery based on eyewitness testimony. On his Application for Writ of Habeas Corpus, the defense called Dr. Michel, a forensic visual science expert, to testify at the writ hearing. Dr. Michel's expert testimony was that the eyewitnesses could not have seen the face of the person exiting the BMW because of darkness, distance, and movement. Specifically, Dr. Michel testified that Cotton would not have been able to make a facial identification of a person jumping a fence 113 feet away from him. He also stated that Stewart was so far from the BMW that he would not be able to make a facial identification even in daylight, and Oliver could not have made a facial identification of a person exiting the passenger side of the BMW because her window was 123 feet away from the car. Applicant says that the State's expert agreed that with the distance and lighting conditions and Oliver would not have been able to identify facial features of the individuals exiting the car. Applicant's argument is that it was physically impossible for the eyewitnesses to make a facial identification.

Holding: The Court of Criminal Appeals denied relief. The Court stated:

"First, while the science of forensic visual testing may be new, the evidence Applicant relies on is not newly discovered or newly available. Shortly after

the 1987 offense, investigators were able to observe the scene from the vantage point of the eyewitnesses while the conditions were similar to the way they were the night of the offense. The evidence gathered by investigators for both the State and the defense was presented to the jury. The issues of lighting, distance, and the witnesses' ability to identify Applicant were raised at trial. The jury heard the evidence regarding the streetlight in the alley, the light in the back of one of the houses, and the light in the car, as well as the defendant's evidence about how far away each witness was from the car. Three separate juries chose to believe the witnesses. Applicant's expert observed the scene many years later, in 2003, when the conditions from the night of the offense were unable to be replicated. For example, Gladys Oliver's house had been torn down, there were new windows and a new fence at Cotton's house, a new shed had been built, the lighting was different, tree growth had changed after 16 years, and there was no way to ascertain exactly where in the alley the car had been on the night of the offense. Based on this, the expert determined that it was physically impossible for the witnesses to see the face of the person exiting the car.

We agree with the State that not all scientific advances can be treated equally. While we have considered advances in science when determining whether certain evidence, such as DNA, is newly discovered or newly available, the evidence presented by Applicant is not the sort of evidence that is capable of being preserved and tested at a later date. Forensic visual science may be new, but there is no way for the forensic visual expert to test the conditions as they existed at the time of the offense because there is no way to replicate the lighting conditions.

We will consider advances in science and technology when determining whether evidence is newly discovered or newly available, but only if the evidence being tested is the same as it was at the time of the offense. Thus, the science or the method of testing can be new, but the evidence must be able to be tested in the same state as it was at the time of the offense.

Applicant says that 'scientific evidence establishes the wrongfulness' of his conviction. However, an expert report saying that it was too dark and the car was too far away for the eyewitnesses to have seen Applicant does not affirmatively establish his innocence. All it does is attempt to discredit the witnesses who stated that they saw Applicant get out of the victim's car."

Grooming of Children For Sexual Molestation

***Morris v. State*, 361 S.W.3d 649 (Tex. Crim. App. 2011)**

Facts: Morris was convicted of indecency with a child. Issue was whether grooming of children for sexual molestation, as a phenomenon, is a legitimate subject of expert testimony.

Holding: The court held that grooming of children for sexual molestation, as a phenomenon, is a legitimate subject of expert testimony of which a law enforcement officer with a significant amount of experience with child sex abuse cases may be qualified to testify.

Polygraph Evidence

***Leonard v. State*, ___ S.W.3d ___, 2012 WL 715981 (Tex. Crim. App. 2012), rehearing granted.**

Facts: State petitioned to revoke Leonard's community supervision based on results of polygraph examinations that were part of his mandatory sex offender treatment program. Trial court granted petition, adjudicated Leonard and imposed a seven year prison sentence. The issue was whether the trial court erred in considering evidence of the failed polygraph examination in deciding whether to revoke Leonard's community supervision.

Holding: The Court of Criminal Appeals held that the fact that the defendant failed five polygraph examinations was admissible in an adjudication and revocation of community supervision hearing. The court restated the previous rule that polygraphs were not admissible before a jury. However, the court held that because adjudication hearings are administrative

proceedings, in which there is no jury and the judge is not determining guilt of the original offense, that the results of a polygraph examination is admissible if it qualifies as the basis for an expert opinion under Tex. Rules of Evid. 703 and 705(a).

Judge Cochran, joined by Judges Price, Womack and Johnson, dissented, stating,

“We should not permit or condone ‘trial by polygraph’ or ‘revocation by polygraph’ especially when there was not a scintilla of evidence introduced at this revocation hearing concerning the general scientific reliability of polygraph testing or its scientific reliability in this particular case.”

Death Penalty/Mental Retardation

Ex Parte Westbrook, 2012 WL 1142399 (Tex. Crim. App. 2012); *Ex Parte Maldonado*, 2012 WL 1439056 (Tex. Crim. App. 2012); *Ex Parte Escobedo*, 2012 WL 982907 (Tex. Crim. App. 2012); *Ex Parte Matamoros*, 2011 WL 6241295 (Tex. Crim. App. 2011); *Ex Parte Butler*, 2011 WL 6288411 (Tex. Crim. App. 2011); *Ex Parte Hunter*, 2012 WL 1439050 (Tex. Crim. App. 2012).

All cases remanded by Court of Criminal Appeals to trial court to hold hearings concerning testimony from Dr. George Denkowski that these death row inmates were not mentally retarded and thus, eligible for execution. Denkowski’s methods had been criticized as being unscientific and artificially inflating intelligence scores to make defendant’s eligible for the death penalty. The Texas State Board of Examiners of Psychologists issued a reprimand against Denkowski; where he was forced to agree not to conduct intellectual disability evaluations in future criminal cases.

Lab Testing and the Confrontation Clause

Melendez-Diaz v. Massachusetts, 129 S.Ct. 2527 (2009)

Facts: At petitioner's state-court drug trial, the prosecution introduced certificates of state laboratory analysts stating that material seized by police and connected to petitioner was cocaine of a certain quantity. As required by Massachusetts law, the certificates were sworn to before a notary public and were submitted as prima facie evidence of what they asserted. Petitioner objected, asserting that *Crawford v. Washington*, 541 U.S. 36, 124 S.Ct. 1354, 158 L.Ed.2d 177, required the analysts to testify in person. The trial court disagreed, the certificates were admitted, and petitioner was convicted. The Massachusetts Appeals Court affirmed, rejecting petitioner's claim that the certificates' admission violated the Sixth Amendment.

Holding: The admission of the certificates violated petitioner's Sixth Amendment right to confront the witnesses against him.

***Bullcoming v. New Mexico*, 131 S.Ct. 2705 (2011)**

Introduction of blood-alcohol analysis report, wherein a forensic analyst certified that defendant's blood-alcohol concentration was well above the threshold for aggravated driving while intoxicated (DWI) under New Mexico law, through the surrogate testimony of a second analyst, who had not certified the report or performed or observed the testing, violated the Confrontation Clause. The testifying analyst could neither convey what the certifying analyst knew or observed about the particular test and testing process he employed, nor expose any lapses or lies by the certifying analyst, and the testifying analyst had no knowledge of the reason why the certifying analyst had been placed on unpaid leave.

See also, Briscoe v. Virginia, 130 S.Ct. 1316 (2010) (vacating the judgment of the

lower court and remand for further proceedings not inconsistent with the opinion in *Melendez-Diaz v. Massachusetts*).

***Williams v. Illinois*, 131 S.Ct. 3090 (2011)**

This case is pending at the Supreme Court and presents the issue of whether a state rule of evidence allowing an expert witness to testify about the results of DNA testing performed by non-testifying analysts violates the Confrontation Clause when the defendant has no opportunity to confront the actual analysts.