STATE OF SOUTH CAROLINA

IN THE SUPREME COURT

Certiorari to Laurens County

Honorable Eugene C. Griffith, Circuit Court Judge

THE STATE,

RESPONDENT,

V.

DANIEL MARTINEZ HERRERA,

PETITIONER

APPELLATE CASE NO 2016-002523

BRIEF OF PETITIONER

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STATEMENT

Procedural History

On October 8, 2010, the Laurens County Grand Jury indicted Appellant, Daniel Herrera, for one count of trafficking in marijuana of over ten pounds and under one hundred pounds. R. 184 - R. 183. On December 16, 2013, Appellant proceeded to trial *in absentia* before the Honorable Eugene C. Griffith, Jr. and a jury. R. 2, ll. 1 - R. 7, ll. 24.

Deputy Solicitor Dale Scott and Assistant Solicitor Taylor Daniel represented the State. Chelsea McNeill represented Appellant. The jury found Appellant guilty as charged. On June 6, 2014, the Honorable Frank R. Addy, Jr. unsealed Judge Griffith's sentencing order and imposed a five year sentence of incarceration. R. 3, ll. 180 – R. 181, ll. 5.

Relevant Facts

On August 12, 2010, Glenda Armstrong discovered a package on the side porch of her Laurens County home. R. 25, ll. 11 – R. 27, ll. 6. The box was addressed to a "Yems Smith" and listed a return address from Texas. *Id.* Armstrong took the box inside, became curious, and opened it. Upon seeing the contents of the box, Armstrong called the Laurens City Police Department. *Id.*

Police Officer Brandy Anderson responded to Armstrong's call and inspected the box. R. 38, ll. 2 – R. 39, ll. 13. She believed the box contained several sizeable vacuum sealed bags of what appeared to be marijuana. *Id.* Anderson took control of the box and returned to the police station.

Later on August 12th, two Hispanics, one male one female, knocked on Armstrong's back door. They explained to Armstrong that they believed a package containing children's clothes had been sent to her house by mistake. R. 29, ll. 15 – R. 30, ll. 15. Armstrong lied to the two, telling them that she had returned the box to the post-office. *Id.* Once the two individuals left, Armstrong contacted the police.

The following morning, Investigator Walter Bentley planned a "controlled pick-up" from the post office. R. 73, ll. 4 – R. 74, ll. 9. Bentley arrived at the post-office in downtown Laurens around 8:30 a.m. The post-office opened at 9:00 a.m. Upon pulling into the parking lot in an unmarked vehicle, Bentley immediately noticed a Hispanic male, later identified as Appellant, waiting in an adjacent vehicle for the post office to open. R. 76, ll. 13 R. 77, ll. 14.

When the post-office opened, Bentley – who was not in uniform and had concealed his gun and badge – followed Appellant into the post-office. R. 78, ll. 1 – R. 80, ll. 22. Appellant and Bentley were the only "customers." *Id.* Bentley claimed Appellant asked the postal employee to look for a box that was mistakenly delivered to Ms. Armstrong's address. *Id.*

Once the employee went into the back room a second time to look for the box, Bentley stepped from behind Appellant in line and told Appellant "I have your package and you are under arrest." Bentley claimed Appellant responded "oh shit, Señor." R. 91, ll. 14-20. Appellant was then taken into custody.

Trial

Appellant was not present for trial. Defense counsel moved for a continuance arguing that Appellant did not receive proper notice of his trial date and may not read or speak English. R. 1, ll. 17 – R. 5, ll. 3. The court denied the motion for continuance. R. 7, ll. 3-24.

Trial Testimony of Glenda Armstrong

Armstrong testified at trial about discovering the box on her side porch and contacting law enforcement. Armstrong recalled with irritation that at the time of the incident about "twelve Mexican people" were living at the house next door and that there "was all sorts of activity going on all the time." R. 24, ll. 23-25; R. 32, ll. 3-15.

Armstrong described the man who asked about the package as being approximately twenty-five to twenty-six years old, weighing roughly one hundred sixty-five to one hundred seventy-five pounds and standing about five foot seven inches tall. R. 87, ll. 1-6. She described the female as also in her mid-twenties, weighing about one hundred and twenty pounds, and being roughly four foot nine inches. *Id.* Despite giving such detailed descriptions, law enforcement never had Armstrong attempt a photographic lineup identification of Appellant. R. 90, ll. 23 – R. 91, ll. 5.

Trial Testimony of Walter Bentley

Bentley was the lead investigator and had attempted to arrange the controlled pickup at the post office. Bentley believed Appellant may have recognized him as law enforcement when he first confronted Appellant as Bentley frequently ate at the local Mexican restaurant where Appellant worked. R. 91, ll. 6-20. Bentley opined also that Appellant roughly matched the description provided Armstrong. R. 92, ll. 6-11.

Bentley searched Appellant after placing him under arrest and found a slip of paper with the name "Yems Smith" and Armstrong's address in Appellant's pocket. *Id.* at ll. 15-18. Bentley averred that efforts to locate a "Yems Smith" were unavailing and that he did not believe the person existed. R. 81, ll. 10-25. Bentley also apparently attempted to coordinate with the DEA and the Post Office regarding the return address in Texas, but failed to uncover any additional information. R. 85, ll. 2-15.

Trial Testimony of Jared Hunnicutt

Hunnicutt, an investigator with the Laurens Police Department, was called by the State to testify concerning analysis work he performed on the vacuum sealed bags of marijuana. The State proffered Hunnicutt "as an expert in the field of marijuana detection and analysis" R. 109, ll. 19-22. Defense counsel objected, arguing that the identification of marijuana was not outside the

knowledge of an average juror and that, if expert testimony was necessary, the witness lacked sufficient training and qualifications. R. 107, ll. 18 – R. 108, ll. 3.

Hunnicutt had been a Laurens police officer for ten years. He was a criminal justice major and graduate of Lander University. R. 100, ll. 3-23. In May of 2010, seven months before Appellant's trial, Hunnicutt attended a two day marijuana seminar conducted by SLED. R. 95, ll. 21 – R. 99, ll. 22. Over the sixteen-hours of instruction, he had been taught various methods of visually identifying marijuana as well as a single chemical test for identifying marijuana. *Id.*

In order to be certified by SLED as capable of recognizing marijuana, Hunnicutt had to determine when a substance was or was not marijuana one hundred times. *Id.* On *voir dire* cross-examination, Hunnicutt stated that he had been taught the different parts of marijuana and how to weigh drugs by zeroing a digital scale. R. 104, ll. 15 – R. 105, ll. 18.

The trial court declined to qualify Hunnicutt as an expert in the analysis of marijuana. R. 108, ll. 9-25. Specifically, the court believed that the two day course was insufficient training and that the State had failed to provide the court with proof that Hunnicutt had any analyst certification. The court also voiced concern over the reliability of Hunnicutt's supposed weighing and analysis techniques. *Id.*

Having failed to qualify Hunnicutt as an expert marijuana analyst, the State then sought to qualify him as an expert in marijuana identification. R. 114, ll. 12 – R. 115, ll. 5. Defense counsel renewed her objections. *Id.* The Court qualified Hunnicutt as an expert in the identification of marijuana given his decade of law enforcement experience. *Id.* In keeping with the court's ruling, when the jury returned Hunnicutt testified he believed the six vacuum sealed bags taken from the box contained marijuana. R. 117, ll. 21 – R. 119, ll. 11.

After Hunnicutt stated that he had also weighed the bags, defense counsel objected arguing that the weight of the marijuana was beyond his expertise. R. 119, ll. 14-24. The State countered rhetorically "when do you have to be qualified as an expert to weigh something, that is not an opinion testimony. Anybody can testify if they personally weighed, what the results are." R. 119, ll. 25 – R. 120, ll. 3. The trial court overruled the objection, finding that the weight of the drugs was part of the identification. R. 120, ll. 10-11.

Drug Weight Evidence and Testimony

Hunnicutt testified that he weighed each bag of marijuana individually, the six bags had a combined weight of ten pounds and two and seventy-eight hundredth ounces. R. 121, ll. 3 – R. 122, ll. 12. That is only 1.7% over the minimum required for trafficking. Less than three ounces separated trafficking from possession with intent to distribute. On cross-examination, Hunnicutt admitted that he did not weigh the vacuum sealed bags independently when determining the amount of marijuana. R. 150, ll. 14 – ll. 19. Instead, Hunnicutt confessed that he "weighed a bag, the same size and consistency of that and it comes out to two and three tenths grams."

Despite the marijuana weighing just over the ten pound minimum for trafficking, Hunnicutt did not send the marijuana to SLED or any other law enforcement agency to verify its weight. He also failed to check the accuracy of scales he used and during cross-examination he defensively denied that the maintenance of the scales was his responsibility. R. 124, ll. 3 - R. 126, ll. 21. Hunnicutt made no written report. The bag he used was never introduced at trial.

With respect to the marijuana itself, Hunnicutt stated that he did not remove any "stems" and that he was not ever qualified to identify marijuana "stems" only marijuana itself. R. 127, ll. 4-20. When reminded by defense counsel that he was an expert in marijuana identification, Hunnicutt

posited "earlier you [defense counsel] asked me if stems were marijuana and I told you no . . . [law enforcement] don't test stems." R. 127, ll. 13-24.

While showing Hunnicutt a marijuana stem, defense counsel asked him if he included the weight of stems when calculating the total drug weight. R. 128, ll. 2-19. Hunnicutt became confused and was suddenly unable to cogently describe what he believed a stem was. *Id.* On redirect, Hunnicutt reasserted his expertise, but contradicted his earlier testimony in an effort to agree with the State's contention that "the stems [*sic*] is part of the marijuana plant. . . ". R. 129, ll. 5-10. Hunnicutt was the State's final witness and the defense did not present any evidence or testimony.

Directed Verdict, Jury Instructions, and Verdict

Defense counsel moved for a directed verdict arguing that the State had failed to present sufficient evidence that Appellant "knowingly" attempted to possess trafficking quantities of marijuana. R. 130, ll. 9 – R. 133, ll. 7. The State countered that it had "proven there was in fact ten pounds or more of marijuana" and was not required to prove that Appellant knew it was going to be that much marijuana. R. 133, ll. 9 – R. 135, ll. 5. The Court denied Appellant's directed verdict.

The court charged on the lesser-included offense of possession with intent to distribute. Appellant argued that the State had included portions of the marijuana plant that, under S.C. Code Ann. § 44-53-110(27)(b), were explicitly excluded from the definition of marijuana. Appellant specifically identified the State's reliance on "stems" and "seeds" to push the weight of marijuana over the threshold amount for trafficking. R. 137, ll. 1 – R.144, ll.18.

During deliberations the jury requested a definition of marijuana. R. 200, ll. 11-22. The trial court sent back the statutory definition of marijuana in § 44-53-110(27). *Id.*; R. 186. The court also provided the jury with the statutory explanation of the weight of a controlled substance under § 44-

53-392: "Notwithstanding any other provision of this article, the weight of any controlled substance referenced in this article is the weight of that substance in pure form or any compound mixture thereof." R.187. After deliberations, the jury returned a verdict of guilty of one count of trafficking in marijuana. R. 174, ll. 2 – R. 176, ll. 21.

ARGUMENT

I.

The Court of Appeals erred in ruling that testimony by Detective Jared Hunnicutt on the weight and contents of six vacuumed sealed bags containing marijuana was properly admitted as non-scientific expert opinion testimony.

Relevant Facts

The Court of Appeals affirmed Petitioner's conviction by concluding that the trial court did not err in allowing Detective Jared Hunnicutt to testify as an expert in the identification of marijuana. This qualification included permitting Hunnicutt to give opinion testimony on the weight of the marijuana at issue. R. 119, ll. 19 – R. 120, ll. 22.

The Court of Appeals held that determining the makeup and weight of the purported marijuana was part of "marijuana identification," a field of non-scientific expertise. This ruling was in error. Reliably determining the makeup and weight of an alleged controlled substance is an area of scientific expertise. The Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals, Inc.* defined scientific knowledge as:

> [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. "***Scientific methodology today is based on generating hypotheses and testing them to see if they can be falsified***; indeed, this methodology is what distinguishes science from other fields of human inquiry."

509 U.S. 579, 593, 113 S. Ct. 2786, 2796 (1993) (*internal citations omitted*). Under South Carolina law, marijuana is defined as:

> (i) all species or variety of the marijuana plant and all parts thereof whether growing or not;
> (ii) the seeds of the marijuana plant;
> (iii) the resin extracted from any part of the marijuana plant; or

> (iv) every compound, manufacture, salt, derivative, mixture, or preparation of the marijuana plant, marijuana seeds, or marijuana resin.

§ 44-53-110(27)(a).

Expressly excluded from the statutory definition of marijuana are "the ***mature stalks*** of the marijuana plant or fibers produced from these stalks," and "the sterilized seed of the marijuana plant which is incapable of germination." § 44-53-110(27)(b)(i), (iv) (*emphasis added*). A plant stalk is defined "a ***stem*** or main axis of a herbaceous plant. [A] ***stem*** or similar structure that supports a plant part such as a flower, flower cluster, or leaf. [A] slender or elongated support structure."[1] *The American Heritage Dictionary*, 1187 (2d College Ed. 1982) (*emphasis added*).

Discussion

There is no South Carolina case law interpreting the statutory definition of marijuana or its exclusion of "mature stalks" and "non-germinating seeds." However, a 1985 South Carolina Attorney General Opinion assessing whether the weight of marijuana plant roots should be included when determining whether to bring a trafficking charge is instructive. 1985 Op Atty Gen, No. 85-64, p 175. Further, South Carolina's statutory definition mirrors the definition adopted by the federal government and many states. *Id.*; *see also* 21 USCS § 802 (15).

The Attorney General's Opinion states that "the most prevalent view [of other states' courts] is that mature stalks and other excluded material should not be weighed in determining the amount of marijuana confiscated." 1985 Op Atty Gen, No. 85-64, p 175 (*citing Lang v. State*, 165 Ga. App.

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[1] With respect to plant development "mature" is defined as: "having reached full natural growth or development" The American Heritage Dictionary 773 (2d College Ed. 1982). "Stem" is defined unambiguously as a part of the stalk: "the main ascending axis of a plant; ***stalk***; or trunk. [***A] slender stalk*** supporting or connecting another plant part, such as a leaf or flower" *Id.* at 1193 (*emphasis added*). "Stem, in botany, is the plant axis that bears buds and shoots with leaves and, at its basal end, roots. ***The stem is the stalk of a plant*** or the main trunk of a tree." "Stem" *Britannica School*. Encyclopædia Britannica, Inc., 2015. Web. (May 28, 2015) http://library.eb.com.rlsc.idm.oclc.org/levels/referencecenter/article/69567 (*emphasis added*).

576 (1983); *State v. Kerfoot*, 675 S.W.2d. 658 (Mo. Ct. Cir. 1984); *U.S. v. Wright*, 742 F.2d 1220 (9th Cir. 1984)(*overruled on other grounds U.S. v. Valles–Valencia*, 823 F.2d 381 (9th Cir.1987)); *Purifoy v. State*, 359 So. 2d. 446 (Fla. 1978); *Kenny v. State*, 382 So. 2d. 304 (Fla. 1978)).[2]

Addressing the specific question asked, the opinion posits that while the mature stalks of a marijuana plant would likely be excluded from the total weight, the statute does not list roots as excludable material when determining the weight of marijuana. 1985 Op Atty Gen, No. 85-64. The Attorney General's opinion concludes "it is most likely that the South Carolina court would follow the majority of jurisdictions with similar statutes and not allow statutorily excludable portions of the marijuana plant to be weighed when determining the amount of confiscated contraband."

In Petitioner's case, the State had to prove that at least ten pounds of the plant material found in the six packages satisfied the statutory definition of marijuana. This can only be determined by examining the substance for the presence of excludable material. *See State v. Yanowitz*, 426 N.E.2d 190, 197 (Ohio Ct. App. 1980) (holding that marijuana seeds which have not been proven by the state to be capable of germination are not contraband material under Ohio's similar statutory definition of marijuana.).

Accordingly, the State must test either all, or a representative sampling, of the seeds found in a substance containing marijuana to reliably determine the percentage of those seeds capable of germination. Likewise, the State must test whether the stems and other plant material are "mature stalks" and, thus, excluded from the total weight of marijuana.

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2 At the time these cases were decided, Florida's legislature had removed the exclusions from the statute. However, the courts held that the exclusions still applied to these cases and the criminal convictions were reversed as "the weight of the mature stalks of marijuana was erroneously included in the total weight of the marijuana." 1985 Op Atty Gen, No. 85-64 (*citing Jordan v. State*, 419 So. 2d. 363 (1982)).

The total weight of a specific amount of marijuana can- within a known rate of error - be scientifically determined. *Strengthening Forensic Science in the United States: A Path Forward*, Committee on Identifying the Needs of the Forensic Sciences Community, National Research Council, 134 - 136, (2009). Scientifically valid techniques for weighing controlled substances have been established by widely recognized forensic laboratory accreditation associations and government agencies. *Id.* These techniques are memorialized in written protocols, adhere to the scientific method, have quality control procedures, and are subjected to peer review.

There are no subjective components to these tests. A seed is either capable or incapable of germination. Sabry Elias & Adriel Garay, *Tetrazolium Test (TZ): A Fast, Reliable Test to Determine Seed Viability*, Oregon State University Seed Laboratory (2004) (January 17, 2017), http://seedlab.oregonstate.edu/sites/default/files /pubs/value-tz-test-2004.pdf. A plant stem is either mature or immature. The total weight of marijuana either meets the threshold for trafficking or falls below it.

Accordingly, the Court of Appeals erred in affirming the trial court's ruling that testimony by Detective Jared Hunnicutt on the weight and contents of six vacuumed sealed bags containing marijuana was properly admitted as non-scientific expert opinion testimony.

ARGUMENT

II.

The Court of Appeals erred in affirming the trial court's ruling allowing Detective Jared Hunnicutt to give expert opinion testimony on the weight and contents of six vacuumed sealed bags purporting to contain marijuana where Hunnicutt's method for determining the net weight of marijuana in Petitioner's case was unreliable because he did not know the statutory definition of marijuana and, thus, failed to remove excludable plant materials before weighing the six vacuumed sealed bags.

The trial court correctly ruled that Hunnicutt lacked sufficient skill, knowledge, and training to testify as an expert in marijuana analysis. R. 109, ll. 19 – R. 111, ll. 6. However, over the objection of defense counsel, the trial court qualified Detective Jared Hunnicutt as an expert in the identification of marijuana, which the trial court determined included giving opinion testimony on the weight of the marijuana at issue. R. 119, ll. 19 – R. 120, ll. 22.

The Court of Appeals erred in affirming the trial court's ruling. Hunnicutt's testimony was beyond the scope of whatever expertise he may have possessed and his methodology for identifying marijuana was not sufficiently reliable. *State v. Jones*, 343 S.C. 562, 572, 541 S.E.2d 813, 818 (2001); § 44-53-110(27)(b); R. 95, ll. 4 – R. 115, ll. 5.

Relevant Facts

Hunnicutt gave expert testimony asserting that the contents of the vacuum sealed bags Appellant attempted to possess weighed ten pounds and two and seventy-eight hundredths ounces. R. 121, ll. 6- R. 122, ll. Encompassed in that net weight were a large amount of seeds and other plant material, including stems. R. 128, ll. 22 – R. 129, ll. 14. As the statutory definition of marijuana expressly excludes "mature stalks" and "non-germinating seeds," Hunnicutt should have removed the excludable materials prior to weighing the packages. 1985 Op Atty Gen, No. 85-64; R.127, ll. 14 – R. 130, ll. 7.

He did not do so because he did not know the statutory definition of marijuana, despite being qualified as an expert in "marijuana identification." R. 128, l. 2 - 129, l. 10. He was completely unaware that the statutory definition of marijuana excluded non-germinating seeds and mature stalks. Not knowing the legal definition of the subject that one is claiming an expertise in identifying should preclude being qualified as an expert. In addition, he was also unable to cogently explain whether the "stem" of the marijuana plant was a component of the stalk.

When asked on cross-examination, Hunnicutt derisively responded that he was "not certified in telling what stems are." *Id.* Confronted with the statutory definition of marijuana, Hunnicutt sheepishly admitted that "stems" were not part of what he now understood to be marijuana. R. 127, ll. 10 – R. 128, ll. 19. He further conceded that he did not separate the marijuana from the stems before weighing the drugs and conducted no tests to determine if the stems were "mature". Predictably, Hunnicutt's "expert" opinion changed again when, on re-direct examination, the solicitor's suggested to him that stems could be included in the statutory definition of marijuana.

Discussion

All expert testimony must satisfy Rule 702, SCRE, criteria. *State v. White*, 382, S.C. 265, 270, 676 S.E.2d 684, 686 (2009). Under the Rule, the trial court exercises a gatekeeping function to insure the proposed expert testimony meets a reliability threshold for the jury's consideration. *Id.* This inquiry requires that the proposed expert testimony meets a sufficient level of reliability, regardless of whether it is scientific or nonscientific. *Id.*

Reliability is the central concern governing the admission of expert testimony. *Jones,* 343 S.C. at 572, 541 S.E.2d at 818; *Kumho Tire Co., Ltd. v. Carmichael,* 526 U.S. 137, 147, 119 S.Ct. 1167 (1999). Trial courts should be cautious in conferring an expert label upon a witness because

juries may accord excessive or undue weight to "expert" testimony. *Watson v. Ford Motor Co.*, 389 S.C. 434, 699 S.E.2d 169 (2010).

Accordingly, trial courts are required to establish whether: (1) the expert has the requisite qualifications, experience, and/or credentials; (2) the methodology by which the evidence is obtained is reliable; and (3) the evidence will assist the trier of fact. *Id.* On appeal, the trial judge's decision to admit or exclude evidence is reviewed under an abuse of discretion standard. *Id.* at 20, 515 S.E.2d at 518.

When evaluating scientific evidence under Rule 702, SCRE, the trial court must determine if the underlying science is reliable. *State v. Council*, 335 S.C. 1, 21, 515 S.E.2d 508, 518 (1999). In making its determination, the trial court must examine the following factors: (1) publications and peer reviews of the technique used by the expert; (2) prior application of the method to the type of evidence involved in the case; (3) quality control procedures used to ensure reliability; and (4) the consistency of the method with recognized scientific laws and procedures. *Jones,* 343 S.C. at 572, 541 S.E.2d at 818.

Hunnicutt's manifestly lacked the kind of specialized expertise regarding marijuana that would assist jurors in deciding whether or not Petitioner attempted to traffic ten or more pounds of marijuana. He simply did not know what plant material constituted marijuana under South Carolina law. R. 127, l. 1 - 129, l. 10. His failure to test stems and seeds to see if they satisfied the statutory definition of marijuana prior to weighing the six vacuumed seals bags fatally undermined the reliability of his opinion as to the weight of the marijuana at issue. *State v. Chavis*, 412 S.C. 101, 771 S.E.2d 336 (2015) (holding that there was no evidence that a forensic interviewer was able to draw reliable results from her use of the RATAC protocol.).

Other jurisdictions with similar statutory definitions of marijuana have reversed convictions when the prosecution's "expert" failed to remove excludable material prior to weighing marijuana because it forced the jury to speculate as to the accused guilt. *See State v. McClain*, 301 S.W.3d 97, 98 (Mo. Ct. App. 2010) (reversing conviction for felony possession of at least 35 grams of marijuana where State's expert testified that baggies found on defendant, containing marijuana and stems, weighed 38.30 grams, but never testified to weight of non-controlled substances (stems) mixed with marijuana or weight of marijuana without non-controlled substances.); *Ex parte Bohannon*, 564 So.2d 854, 858 (Ala. 1988) (reversing conviction for possession of marijuana in excess of 2.2 pounds where toxicologist testified total weight of green plant material and seeds containing marijuana was approximately 3.5 pounds, but admitted there were untested stems and potentially fertile seeds in material weighed).

Accordingly, the Court of Appeals erred in permitting Detective Hunnicutt to testify as an expert in "marijuana identification" when Hunnicutt had no knowledge of the statutory definition of marijuana and failed to remove excludable plant materials before weighing the packages purporting to contain marijuana.

ARGUMENT

III.

The Court of Appeals erred in affirming the trial court's ruling allowing Detective Jared Hunnicutt to give expert opinion testimony on the weight and contents of six vacuumed sealed bags purporting to contain marijuana where Hunnicutt's method for determining the net weight of marijuana was unreliable because he utilized an erroneous, non-representative sampling method to account for the weight of the six vacuumed sealed bags.

Relevant Facts

Hunnicutt testified that he did not attempt to individually weigh the six vacuum sealed bags that contained the marijuana. R. 122, ll. 23 – R. 124, ll. 10. Instead, he approximated the weight of the vacuum sealed bags by selecting a random bag he had at hand in the police station that appeared to him to be roughly the same size and "consistency" as the bags containing marijuana. R. 123, ll. 8-25 *Id.* This bag was not produced at trial.

Further, Hunnicutt did not know whether the scale he used was accurate. R. 124, ll. 11-14; R. 126, ll. 14-16. He simply zeroed the scale before placing each bag on it. He believed that insuring the accuracy of the scale was not his responsibility. *Id.* Despite the marijuana weighing less than 2% over the minimum for trafficking, Hunnicutt did not seek a second opinion on its weight from SLED, another police agency, or a crime laboratory technician. R. 124, ll. 15 – R. 125, ll. 16.

Discussion

Hunnicutt's methodology failed each of the *Jones* reliability factors and the trial court should not have ruled that he was qualified to testify as an expert in "marijuana identification." The Court of Appeals erred in affirming the trial court's ruling.

"Reliability is a central feature of Rule 702 admissibility . . . ." and trial courts must "mak[e] a threshold determination for purposes of admissibility." *State v. White*, 382 S.C. 265, 270, 274,

676 S.E.2d 684, 686, 688. As detailed *supra*, scientific evidence is only admissible if the Court determines that: "(1) the evidence will assist the trier of fact; (2) the expert witness is qualified; (3) the underlying science is reliable; and (4) the probative value of the evidence outweighs its prejudicial effect." *Jones*, 343 S.C. at 572, 541 S.E.2d at 818.

This Court's decisions regarding "barefoot sole impressions" in *State v. Jones*, and mitochondrial DNA (mtDNA) analysis in *State v. Council* are instructive when evaluating the level of scientific reliability mandated by Rule 702, SCRE.

In *Jones*, the State sought to introduce "barefoot insole impression evidence" which theorizes that the regular wearer of a pair of shoes imparts the impression of his foot into the insole of the shoes. 343 S.C. 562, 572, 541 S.E.2d 813, 819. The prosecution claimed that a single boot print left at the scene of the crime matched a pair of boots that a co-defendant claimed Jones wore when committing the crime. The prosecution wanted to prove to the jury that "barefoot impressions" left on boots' insoles were consistent with having been worn by Jones. *Id.*

SLED Agent Derrick defined barefoot insole impressions as "inked impressions of the suspected wearer's feet, photos of the suspected wearer's known insoles, and a standing cast of the suspected wearer's foot [which] are compared to the impressions in the boots, both visually and by using calipers to compare distances between toes and other features among the various exhibits." *Id.* Derrick testified as to the methods used in making "barefoot insole impression" comparisons and regarding a seminar on the subject several years before Jones' trial.

In preparation for trial, Derrick had read three books on the subject and had a phone conversation with a Canadian researcher, who was trying to "establish that each human foot is unique, but at present the most that can be said is that a foot may be "consistent" with a barefoot

impression." *Id.* Derrick admitted that SLED had never conducted a "barefoot sole impression test" before and that there was no written protocol. *Id.* at 574, 541 S.E.2d at 819.

Derrick also admitted that he had not conducted the tests in conformity with SLED's quality control precautions and that there was no written protocol regarding "barefoot insole impressions" tests. *Id.* This Court noted that SLED required a written protocol on all laboratory procedures, which must be "thoroughly tested to prove their scientific validity, accuracy and repeatability." *Id.*

In reversing the trial court, this Court held that "barefoot insole impression" evidence is not scientifically reliable under the *Jones* test and thus inadmissible. *Id.* at 573, 541 S.E.2d at 819. This Court noted that, while there was peer reviewed studies, much of the earlier work that Derrick relied on when designing his tests was discredited. *Id.* Further, the Court concluded that there were no existing recognized scientific laws or proceedings regarding the field of "barefoot insole impression." *Id.*

In *State v. Council* the Court affirmed the trial court's determination that mtDNA analysis evidence was admissible after a detailed examination of the process' reliability. 335 S.C. 1, 515 S.E.2d. 508. Donney Council was convicted of murder and multiple other offenses arising out of the death of Elizabeth Gatti. At sentencing the prosecution sought to confirm that pubic hairs found at the crime scene belonged to Council through analysis of the hair's mitochondrial DNA . *Id.* at 17, 515 S.E.2d at 516.

In a proffer, FBI Special Agent Dr. Joseph DiZinno defined mtDNA and testified regarding the history and process of mtDNA analysis. *Id.* at 17, 515 S.E.2d at 517. Dr. DiZinno also explained that he conducted the analysis using a widely recognized and accepted methodology within the scientific community. *Id.* at 17, 515 S.E.2d at 517. He confirmed the mtDNA evidence

"based on a scientific objective standard" that was capable of repetition and replication by any qualified scientist. *Id.* at 18, 515 S.E.2d. at 516-517.

Looking to the *Jones* requirement, this Court affirmed the trial court's admission of mtDNA analysis evidence:

> [mtDNA] analysis has been subjected to peer review and many articles have been published about this technology. The F.B.I. validated the process and determined its [statistical] rate of error. Its underlying science has been generally accepted in the scientific community. Further, while forensic application of mtDNA analysis is fairly new, the technology has been used in other contexts for several years.

Id.

By contrast, Detective Hunnicutt's method for determining the weight of the marijuana in Petitioner's case was insufficiently reliable and failed to satisfy the *Jones* requirements that: the technique be published and peer-reviewed; the method has been applied to this type evidence; and the method be consistent with recognized scientific laws and proceedings. *Jones*, 343 S.C. at 573, 541 S.E.2d at 819

First, Hunnicutt never identified any experts, professional scientific organizations, authoritative texts, law enforcement forensic testing policies, or peer reviewed publications that endorsed his weighing technique as reliable. *Council,* 335 S.C. at 17, 515 S.E.2d. at 517. This is unsurprising given his bizarre methodology.

Scientifically valid techniques for weighing controlled substances have been established by widely recognized forensic laboratory accreditation associations.[3] ASCLD/LAB, *Policy on*

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[3] The American Society of Crime Laboratory Directors/Laboratory Accreditation Board is a not-for-profit organization specializing in the accreditation of public and private crime laboratories and has been widely recognized by courts as an authority on forensic laboratory best practices. *Matter of Investigation of W. Virginia State Police Crime Lab., Serology Div.,* 438 S.E.2d 501 (1993). There are three ASCLD/LAB certified laboratories in South Carolina: Charleston Police

Sampling, Sampling Plans and Sample Selection in the Drug Chemistry Discipline, (2011), *available at* https://anab.qualtraxcloud.com/ShowDocument.aspx?ID=6435; *see also* Scientific Working Group for the Analysis of Seized Drugs, U.S. Dept. of Justice & Executive Office of the President Office of National Drug Control Policy, *Recommendations*, 14-15, 50-51 (7th. Ed. June 9, 2016). These groups' procedures include scientifically sound ways to account for the weight of drug packaging. *Id.*

Hunnicutt's method of multiply the weight of an unrelated, random bag six times and then subtracting that number from the total weight of all the packages was not a valid method for inferring the weight of the packaging. The random bag he used as a sample was not representative of the packaging the marijuana was found in. *See In re Chevron U.S.A., Inc.,* 109 F.3d 1016, 1019 (5th Cir. 1997) (holding that "[t]he essence of the science of inferential statistics is that one may confidently draw inferences about the whole from a **representative sample** of the whole."); *see also Jones v. Rath Packing Co.,* 430 U.S. 519, 527, 97 S. Ct. 1305, 1310 (1977) (discussing valid statistical sampling techniques).

Second, Hunnicutt never identified other cases where a court approved his technique. His failure to do so is telling. Reports and case law generated in the aftermath of forensic laboratory scandals in other states universally condemn sampling methods and drug weighing practices similar to the one Hunnicutt employed. For example, the Massachusetts Inspector General Report on the William A. Hinton State Laboratory Institute denounced a similar - albeit likely more reliable - invalid sampling technique:

> As late as 2012, chemists in the Drug Lab routinely used invalid arbitrary approaches to sample seized drug evidence in trafficking

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Department Forensic Services Division, Richland County Sheriff's Department Forensic Sciences Laboratory, and the South Carolina Law Enforcement Division Forensic Services Laboratory.

> cases. For instance . . . if a population consisted of 36 items, the chemist would chemically identify and weigh 4 out of 36 items (closest to 10%) or 6 out of 36 items (square root). Using the 10% method, if the 4 items tested positive for a controlled substance, the chemist would then infer the presence of that controlled substance in the remaining 32 bags.
>
> Next, the chemist would calculate the average weight of the 4 bags tested, multiply that average weight by the number of bags, here 36, and use the product as their estimate of the total net weight of the 36 bags. ***Alternatively, the chemist would calculate the average weight of the containers (e.g., plastic bags), multiply the average weight of the plastic bags by the number of items, and subtract the result from the gross weight of the population.***
>
> ***No confidence level is associated with the use of any of the above arbitrary methods. Furthermore, the concern with such arbitrary weight sampling is that the chemist risks overestimating the mean weight of the sample, thereby overstating the actual weight of the population – a critical error in a case near a statutory trafficking weight threshold.***

Massachusetts Office of Inspector General, *Investigation of the Drug Laboratory at the William A. Hinton State Laboratory Institute 2002–2012*, 93 - 94 (2014).

This invalid sampling method has resulted in Massachusetts vacating thousands of drug convictions. *Bridgeman v. Dist. Attorney for the Suffolk Dist.*, No. SJC-12157, 2016 WL 7839021 (Mass. Nov. 16, 2016). This invalid sampling method compares favorably to Hunnicutt's random bag sampling method as at least the sample packaging tested in the Massachusetts laboratory was selected from the packaging used to hold the drugs.

Third, Hunnicutt employed no quality control procedures to ensure reliability. Nor was his method "consistent with recognized scientific laws and proceedings." *Jones*, 343 S.C. at 574, 541 S.E.2d at 819. He did not know or test the accuracy of the scale. He did not submit his findings for peer review. As detailed *supra*, he improperly used a random bag as a "representative" sample of the packaging. *In re Chevron U.S.A., Inc.*, 109 F.3d at 1019. He then failed to keep the bag for later

testing or examination, rendering his experiment incapable of repetition. *Council,* 335 S.C. at 17, 515 S.E.2d. at 517.

Given that the marijuana was stored in only six bags, the proper method would have been to weigh all of the bags without the marijuana. If he did not want to weigh all of the bags, Hunnicutt should have randomly selected a sufficient number of the bags so that he could reliably infer the total weight of the bags. *In re Chevron U.S.A., Inc.,* 109 F.3d at 1019 (holding that sample population must be of sufficient size and type so as to be truly representative of entire group). In short, Hunnicutt's method for weighing the marijuana was totally inconsistent with recognized scientific laws and procedures. *Jones,* 343 S.C. at 572, 541 S.E.2d at 818.

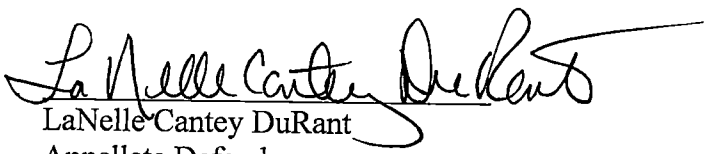
Any assertion of harmless error by the State is untenable. Hunnicutt's testimony could not be harmless because it was the only evidence the State presented which alleged that the amount of marijuana reached the threshold weight required for trafficking. *State v. McKerley*, 397 S.C. 461, 467, 725 S.E.2d 139, 143 (Ct. App. 2012).

Hunnicutt's inclusion of excludable plant material and his failure to accurately account for the weight of the vacuum sealed bags brings into doubt whether the actual amount of marijuana, as defined in § 44-53-110(27), was met the trafficking threshold. R. 123, ll. 4 –R. 128, ll. 19. *State v. Mitchell,* 378 S.C. 305, 316, 662 S.E.23d 493, 499 (2008).

Accordingly, the trial court committed reversible error in holding that Hunnicutt's expertise in the identification of marijuana allowed him to offer expert opinion testimony on the weight of the marijuana at issue in a scientifically reliable manner as required by *State v. Jones*, 343 S.C. 562, 572, 541 S.E.2d 813, 819. And the Court of Appeals erred in affirming the trial court.

CONCLUSION

Based on the above, the Court of Appeals decision should be reversed; the conviction and sentence reversed, and the case remanded.



LaNelle Cantey DuRant
Appellate Defender

ATTORNEY FOR PETITIONER

This 23rd day of March, 2018.

RECEIVED
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S.C. SUPREME COURT

STATE OF SOUTH CAROLINA

IN THE SUPREME COURT

Appeal from Laurens County

Honorable Eugene C. Griffith, Circuit Court Judge

THE STATE,

RESPONDENT,

V.

DANIEL MARTINEZ HERRERA,

PETITIONER

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true copy of the Brief of Petitioner in the above referenced case has been served upon Megan Harrigan Jameson, Esquire, at the Rembert Dennis Building, 1000 Assembly Street, Room 519, Columbia, SC 29201; and a copy of the Brief of Petitioner has been served on Daniel Martinez Herrera, at 109 McDowell St., Laurens, SC 29360, this 23rd day of March, 2018.

LaNelle Cantey DuRant
Appellate Defender
ATTORNEY FOR PETITIONER

SUBSCRIBED AND SWORN TO before me
this 23rd day of March, 2018.

(L.S)
Notary Public for South Carolina
My Commission Expires: July 5, 2027.