

IN THE COURT OF APPEALS  
TWELFTH APPELLATE DISTRICT OF OHIO  
WARREN COUNTY

STATE OF OHIO,	:	
Plaintiff-Appellee,	:	CASE NO. CA2013-06-052
- vs -	:	<u>OPINION</u>
	:	6/16/2014
HAMZA SHALASH,	:	
Defendant-Appellant.	:	

CRIMINAL APPEAL FROM WARREN COUNTY COURT OF COMMON PLEAS  
Case No. 12CR28290

David P. Fornshell, Warren County Prosecuting Attorney, Michael Greer, 500 Justice Drive, Lebanon, Ohio 45036, for plaintiff-appellee

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**HENDRICKSON, J.**

{¶ 1} Defendant-appellant, Hamza Shalash, appeals his conviction in the Warren County Common Pleas Court on multiple counts of aggravated trafficking of controlled substance analogs and one count of engaging in a pattern of corrupt activity, for which he was sentenced to 11 years in prison. For the reasons that follow, we conclude that the trial court abused its discretion in not granting appellant's request for a Daubert hearing on his

motion in limine to exclude the state's expert testimony on whether the substances seized from his premises by police are, in fact, controlled substance analogs. Therefore, we reverse Shalash's conviction and remand this matter for further proceedings consistent with this opinion.

{¶ 2} In August 2011, the Lebanon Police Department began receiving numerous complaints and confidential information that certain "designer" or "synthetic" drugs were being sold at a local Marathon gas station that is partially owned by appellant. In November 2011, Sergeant Mike McCutchin and Detective John Wetzel were involved in two traffic stops in which they confiscated synthetic drugs that had been purchased at the Marathon station. The officers went to the Marathon station and advised appellant that it was illegal to possess or sell synthetic drugs. Appellant turned over seven samples of the substances he was selling and agreed to stop selling them. The samples were sent to the Miami Valley Regional Crime Laboratory (MVRCL).

{¶ 3} On January 18, 2012, Officer Greg Spanel of the Warren County Drug Task Force, working undercover, entered the Marathon station and asked for "Purple Kush." The store clerk told Officer Spanel that they did not have any Purple Kush but did have other types of "spice" or "K2" that he might like. The clerk produced two vials from underneath the counter and told Officer Spanel that the price was \$10 per vial. Officer Spanel gave the clerk \$20 for the vials. The vials were sent to the MVRCL. On that same day, Detective Wetzel and other officers returned to the Marathon station and encountered Marcus Jordan, who the officers found to be in possession of illegal drugs. The officers then went inside the Marathon store and asked to speak with appellant. After appellant gave them consent to search, the officers seized from the premises approximately 1,200 to 1,500 containers of what they believed was spice and 60 containers of "bath salts."

{¶ 4} On February 7, 2012, a confidential informant working with the Ohio

Investigative Unit went into the Marathon station and asked for "Diesel," the street name for spice. After the CI gave the clerk \$20, the CI received a vial of a substance called "Kronic." On February 10, 2012, the CI made another undercover buy at the Marathon station. On this occasion, the CI paid \$20 for a substance called "Pandora."

{¶ 5} On February 13, 2012, Detective Wetzel and other police officers executed a search warrant for the Marathon station and "seized approximately 157 containers of spice, K2" that were located throughout the premises. Appellant told Detective Wetzel that he had instructed his employees not to ring up sales of the designer or synthetic drugs and that he personally had sold such drugs between 400 to 600 times, making \$500,000. Appellant admitted to Detective Josh Holbrook that he continued to sell the synthetic drugs even though he knew it was illegal because he needed the money and that he had obtained the substances from a friend and/or cousin in Cincinnati. The MVRCL's analysis of the substances that were being sold at appellant's Marathon station revealed that they were JWH122, JWH210, JWH250, AM2201 and Alpha PVP which are substantially similar to JWH018 and MDPV, both of which are controlled substances.

{¶ 6} On May 21, 2012, appellant was indicted on five counts of aggravated trafficking of a controlled substance analog in violation of R.C. 2925.03(A)(1), a fourth-degree felony (Counts One, Two, Three, Six and Seven); one count of aggravated trafficking of a controlled substance analog in violation of R.C. 2925.03(A)(2), a first-degree felony, with an accompanying major drug offender (MDO) specification (Count Four); one count of aggravated trafficking of a controlled substance analog in violation of R.C. 2925.03(A)(2), a third-degree felony (Count Five); one count of aggravated trafficking of a controlled substance analog in violation of 2925.03(A)(2), a second-degree felony (Count Eight); one count of engaging in a pattern of corrupt activity in violation of R.C. 2923.32(A)(1), a first-degree felony (Count Nine).

{¶ 7} Appellant moved to dismiss the indictment on the ground that the definition of "controlled substance analog" in R.C. 3719.01(HH) is unconstitutional since it is "void for vagueness." The trial court denied the motion. Appellant filed a motion in limine to exclude the state's expert testimony that the substances seized from his premises were controlled substance analogs and requested a Daubert hearing on the matter. The trial court, relying on federal case law, denied appellant's motion to exclude the state's expert testimony, without holding a Daubert hearing.

{¶ 8} At appellant's two-day jury trial, the state presented testimony from the officers involved in the case and several of the employees at appellant's Marathon station, including Mary Cloven. Cloven testified that at appellant's direction, she always would keep money from the sale of synthetic drugs separate from the money in the cash register by placing the synthetic drug money she received in a bag. Cloven testified that if a customer asked for synthetic drugs, she would send them to fellow employees, Justin Athey or Fiorinita "Ferdie" Marinelli, who would give the customer a vial, take the money, and then give it to her to put into the bag. Athey testified that he sold "spice potpourri" during January 2012 to February 2012 and that the "spice" was stored in the back room. Marinelli testified that appellant told him to keep an eye on the potpourri and sell it to any customer who asked for it and that he observed appellant selling the potpourri.

{¶ 9} The state also presented the expert testimony of MVRCL forensic chemist, Brooke Ehlers, who testified that several of the samples provided to her contained JWH122, JWH210, JWH250 or AM2201 or a combination of those substances. She visually compared a two-dimensional skeletal structure of the substances in those samples with a two-dimensional skeletal structure of JWH018, a Schedule 1 controlled substance, and opined that each of the samples were "substantially similar" to JWH018. Ms. Ehlers testified that several of the samples provided to her, which were labeled "heavenly soak, blissful bath

salts," contained a substance called Alpha PVP, which is not a controlled substance. She visually compared the two-dimensional skeletal structure of Alpha PVP with that of MDPV, a Schedule I controlled substance, and opined that the two substances are substantially similar.

{¶ 10} The state also presented the expert testimony of Dr. Lorraine Marinetti, the chief forensic toxicologist for the MVRCL, who has a doctorate in chemistry. Dr. Marinetti opined that JWH122, JWH210, JWH250, AM2201 and JWH018 are more potent than regular marijuana and that these substances affect a person's brain causing hallucinations, paranoia and aggression, and can cause seizure or death. She testified that Alpha PVP cathinones are natural plant materials converted into designer drugs by adding functional groups that result in substitutive cathinones nicknamed bath salts. She testified that substitutive cathinones are stimulants that increase a person's energy causing euphoria. She testified that Alpha PVP is a substitutive cathinone that increases a person's energy causing euphoria and has the same effects as MDPV, a scheduled controlled substance. She also testified that Alpha PVP has the same dangerous effects as synthetic cannabinoids on a person's heart and brain but that substitutive cathinones are worse because the effects can last after the drug itself wears off. Appellant countered the state's evidence by presenting the expert testimony of Dr. Robert Belloto.

{¶ 11} At the close of evidence, the trial court dismissed the MDO specification attached to Count Four, pursuant to appellant's Crim.R. 29 motion. However, the jury convicted appellant on all other charges. Prior to his sentencing, appellant moved to dismiss or amend his convictions on Counts One through Eight on the ground that the evidence showed that the substance he trafficked was a controlled substance, namely, spice, rather than a controlled substance analog, and therefore he was not indicted under the proper statute and the jury did not convict him under the proper statute. The trial court denied

appellant's motion and sentenced him to an aggregate term of 11 years in prison.

{¶ 12} Appellant now appeals, assigning the following as error:

{¶ 13} Assignment of Error No. 1:

{¶ 14} THE TRIAL COURT ERRED IN DENYING APPELLANT'S MOTION TO AMEND HIS CONVICTION, AND IMPROPERLY HELD THAT THE SUBSTANCES AT ISSUE ARE CONTROLLED SUBSTANCE ANALOGS, NOT 'SPICE', DESPITE WITNESS TESTIMONY TO THE CONTRARY.

{¶ 15} Assignment of Error No. 2:

{¶ 16} THE TRIAL COURT ERRED IN DENYING APPELLANT'S MOTION IN LIMINE TO EXCLUDE EXPERT WITNESS TESTIMONY, PURSUANT TO DAUBERT, WITHOUT A HEARING.

{¶ 17} Assignment of Error No. 3:

{¶ 18} THE EVIDENCE PRESENTED WAS INSUFFICIENT TO SUPPORT THE CONVICTIONS BECAUSE THERE WAS NO EVIDENCE THAT APPELLANT OFFERED TO SELL THE AMOUNTS AS CHARGED, HE MERELY POSSESSED THE AMOUNTS.

{¶ 19} Assignment of Error No. 4:

{¶ 20} THE TRIAL COURT ERRED IN IMPOSING AN ELEVEN YEAR MANDATORY SENTENCE FOR COUNT IV, AS THIS SENTENCE WAS CONTRARY TO LAW AND TO THE COURT'S OWN FINDING THAT AN EIGHT YEAR SENTENCE WAS APPROPRIATE.

{¶ 21} In his first assignment of error, appellant argues the trial court erred in determining that the substances seized by police were "controlled substance analogs" under R.C. 3719.01(HH) rather than "spice" under former R.C. 2925.03(C)(8), and therefore the trial court erred in denying his motion to amend his convictions on Counts One through Eight to fifth-degree felonies. In support of his argument, appellant points out that at the time of his indictment, trafficking in spice was a fifth-degree felony under former R.C. 2925.03(C)(8)

while trafficking in a controlled substance analog was a fourth-degree felony under former R.C. 2925.03(C)(1). Appellant also points out that the state's own witnesses testified that the substances sold by or seized from him were spice and that the state's "entire argument at trial was that all of these designer drugs – spice, synthetic marijuana, and analogs of controlled substances – are the same." He asserts that since the controlled substance analogs that he was charged with trafficking are *similar* to spice, he should have been charged with trafficking in spice rather than trafficking in controlled substance analogs. He also argues that since R.C. 2925.03(C)(1) and 2925.03(C)(8) operate to prohibit "identical" activities, the trial court was obligated under the Equal Protection Clause to sentence him under the section with the lesser penalty. We find these arguments unpersuasive.

{¶ 22} Former R.C. 2925.03(C)(8), which was enacted on October 17, 2011, states:

If the drug involved in the violation is 1-Pentyl-3-(1-naphthoyl)indole, 1-Butyl-3-(1-naphthoyl)indole, 1-[2-(4-morpholinyl)ethyl]-3-(1-naphthoyl)indole, 5-(1,1-dimethylheptyl)-2-[(1R,3S)-3-hydroxycyclohexyl]-phenol, or 5-(1,1-dimethyloctyl)-2-[(1R,3S)-3-hydroxycyclohexyl]-phenol or a compound, mixture, preparation, or substance containing 1-Pentyl-3-(1-naphthoyl)indole, 1-Butyl-3-(1-naphthoyl)indole, 1-[2-(4-morpholinyl)ethyl]-3-(1-naphthoyl)indole, 5-(1,1-dimethylheptyl)-2-[(1R,3S)-3-hydroxycyclohexyl]-phenol, or 5-(1,1-dimethyloctyl)-2-[(1R,3S)-3-hydroxycyclohexyl]-phenol, whoever violates division (A) of this section is guilty of trafficking in spice. The penalty for the offense shall be determined as follows: (a) Except as otherwise provided in division (C)(8)(b) of this section, trafficking in spice is a felony of the fifth degree, and division (C) of section 2929.13 of the Revised Code applies in determining whether to impose a prison term on the offender. (b) If the offense was committed in the vicinity of a school or in the vicinity of a juvenile, trafficking in spice is a felony of the fourth degree, and division (C) of section 2929.13 of the Revised Code applies in determining whether to impose a prison term on the offender.

{¶ 23} At the time of the offenses in question, the list of Schedule 1 controlled substances under former R.C. 3719.41(C), Hallucinogens, included the following drugs: (1) 1-Pentyl-3-(1-naphthoyl)indole, which is known by the trade name, JWH018, former R.C. 3719.41(C)(35); (2) 1-Butyl-3-(1-naphthoyl)indole, which is known by the trade name,

JWH073, former R.C. 3719.41(C)(36); (3) 1-[2-(4-morpholinyl)ethyl]-3-(1-naphthoyl)indole, which is known by the trade name JWH200, former R.C. 3719.41(C)(37); (4) 5-(1,1-dimethylheptyl)-2-[(1R,3S)-3-hydroxycyclohexyl]-phenol, which is known by the trade name CP-47,497, former R.C. 3719.41(C)(38); (5) 5-(1,1-dimethyloctyl)-2-[(1R,3S)-3-hydroxycyclohexyl]-phenol, which is known by the trade, or other, names: cannabicyclohexanol; CP-47,497 C8 homologue, former R.C. 3719.41(C)(39).

{¶ 24} At the time appellant committed the offenses with which he was charged, in order to convict someone of trafficking in spice, it had to be shown that the person trafficked in JWH018, JWH073, JWH200, CP47,497 or cannabicyclohexanol or CP47,497 C8 homologue. Former R.C. 2925.03(C)(8).

{¶ 25} Here, there was no evidence presented to show that the substances seized from appellant's premises constituted "spice" as defined in former R.C. 2925.03(C)(8). It is true that several of the state's witnesses referred to some of the controlled substance analogs that were sold or seized from appellant's Marathon station as being "spice" and that at one point during closing argument, the prosecutor stated he "was just going to refer to the substances as 'spice.'" It is also true that the state's expert, Ms. Ehlers, testified that the substances seized by police, i.e., JWH122, JWH210, JWH250 and AM2201, are *substantially similar* to JWH018. However, Ms. Ehlers never testified that the substances seized were the *same* as JWH018 or any of the other chemicals that legally constitute spice under former R.C. 2925.03(C)(8). Consequently, the trial court did not err in overruling appellant's motion to amend his convictions on Counts One through Eight to fifth-degree felonies.

{¶ 26} Appellant also argues the definition of "controlled substance analog" in R.C. 3719.01(HH) is unconstitutional since it is void for vagueness. R.C. 3719.01(HH) states in pertinent part:

(HH)(1) "Controlled substance analog" means, except as provided in division (HH)(2) of this section, a substance to which both of the following apply:

(a) The chemical structure of the substance is substantially similar to the structure of a controlled substance in schedule I or II.

(b) One of the following applies regarding the substance:

(i) The substance has a stimulant, depressant, or hallucinogenic effect on the central nervous system that is substantially similar to or greater than the stimulant, depressant, or hallucinogenic effect on the central nervous system of a controlled substance in schedule I or II.

(ii) With respect to a particular person, that person represents or intends the substance to have a stimulant, depressant, or hallucinogenic effect on the central nervous system that is substantially similar to or greater than the stimulant, depressant, or hallucinogenic effect on the central nervous system of a controlled substance in schedule I or II.

(2) "Controlled substance analog" does not include any of the following:

(a) A controlled substance;

(b) Any substance for which there is an approved new drug application;

(c) With respect to a particular person, any substance if an exemption is in effect for investigational use for that person pursuant to federal law to the extent that conduct with respect to that substance is pursuant to that exemption;

(d) Any substance to the extent it is not intended for human consumption before the exemption described in division (HH)(2)(b) of this section takes effect with respect to that substance.

{¶ 27} The definition of "controlled substance analog" in R.C. 3719.01(HH) is very similar to the definition of "controlled substance analogue" in the Controlled Substance Analogue (CSA) Enforcement Act of 1986, 21 U.S.C. 802(32), which states:

(A) \* \* \* [T]he term "controlled substance analogue" means a substance--

(i) the chemical structure of which is substantially similar to the

chemical structure of a controlled substance in schedule I or II;

(ii) which has a stimulant, depressant, or hallucinogenic effect on the central nervous system that is substantially similar to or greater than the stimulant, depressant, or hallucinogenic effect on the central nervous system of a controlled substance in schedule I or II; or

(iii) with respect to a particular person, which such person represents or intends to have a stimulant, depressant, or hallucinogenic effect on the central nervous system that is substantially similar to or greater than the stimulant, depressant, or hallucinogenic effect on the central nervous system of a controlled substance in schedule I or II.

(B) The designation of gamma butyrolactone or any other chemical as a listed chemical pursuant to paragraph (34) or (35) does not preclude a finding pursuant to subparagraph (A) of this paragraph that the chemical is a controlled substance analogue.

(C) Such term does not include--

(i) a controlled substance;

(ii) any substance for which there is an approved new drug application;

(iii) with respect to a particular person any substance, if an exemption is in effect for investigational use, for that person, under section 355 of this title to the extent conduct with respect to such substance is pursuant to such exemption; or

(iv) any substance to the extent not intended for human consumption before such an exemption takes effect with respect to that substance.

{¶ 28} No appellate court in this state has addressed whether R.C. 3719.01(HH) is unconstitutionally vague. However, every federal circuit court that has addressed this issue has "held that the CSA's Analogue Provision is not unconstitutionally vague." *United States v. Turcotte*, 405 F.3d 515, 531-532 (7th Cir. 2005).

{¶ 29} For example, in *United States v. Granberry*, 916 F.2d 1008, 1010 (5th Cir.1990), the Fifth Circuit Court of Appeals stated:

Despite Granberry's contention to the contrary, the term "controlled

substance analogue" \* \* \* is clearly and specifically defined, in terms readily comprehensible to the ordinary reader. [Footnote omitted.] It provides adequate notice of what conduct is prohibited. The statute makes plain that drugs which have been chemically designed to be similar to controlled substances, but which are not themselves listed on the controlled substance schedules, will nonetheless be considered as schedule I substances if 1) they are substantially similar chemically to drugs that are on those schedules, 2) if they produce similar effects on the central nervous system as drugs that are on those schedules, or 3) are intended or represented to produce effects similar to those produced by drugs that are on those schedules. There is nothing vague about the statute.

{¶ 30} We agree with the reasoning in cases like *Granberry*, and thus reject appellant's argument that R.C. 3719.01(HH)'s definition of "controlled substance analog" is void for vagueness.

{¶ 31} Appellant raises several other arguments in support of his contention that R.C. 3719.01(HH) is void for vagueness, including that "the chemical structure of a substance is not commonly known to a reasonably educated person"; that "[i]f the State has to have the substance tested by an expert to determine its chemical makeup, then it is unreasonable to believe that the ordinary person would be aware that the substance they possess is contrary to the substances allowed by the statute"; that "a reasonably educated person would not know if a substance has a stimulant, depressant, or hallucinogenic effect on the central nervous system that is substantially similar to or greater than that of a controlled substance in Schedule I or II." However, these same arguments have been rejected by federal courts interpreting the federal CSA statute in 21 U.S.C. 802(32).

{¶ 32} For example, in *United States v. Niemoeller*, S.D.Ind., No. IP 02-09-CR-1H/F, 2003 WL 1563863 \*4 (Jan. 24, 2003), the defendant argued that a person would need expert advice from a chemist, a physician and/or a psychologist to determine whether a compound is an analogue, and therefore the statute was unconstitutionally vague. The *Niemoeller* court rejected that argument, determining that

[w]hen dealing with legislation on complex or technical matters[,] \* \*  
\* Congress can expect a person who wishes to engage in the activity to acquire the necessary specialized knowledge to conform their conduct to the law. Similarly, when dealing with the distribution of organic chemical compounds for human consumption and with intended or hoped-for central nervous system effects, Congress could reasonably expect and require persons engaged in that activity to possess or obtain the specialized knowledge needed to conform their conduct to law.

*Id.*

{¶ 33} We find the reasoning in *Niemoeller* persuasive, and therefore reject the similar arguments that appellant is raising here.

{¶ 34} In light of the foregoing, appellant's first assignment of error is overruled.

{¶ 35} In his second assignment of error, appellant argues the trial court erred in denying his motion in limine to exclude the state's expert testimony on the substances seized by police, without holding a Daubert hearing. We agree with this argument.

{¶ 36} Evid.R. 702 states:

A witness may testify as an expert if all of the following apply:

(A) The witness' testimony either relates to matters beyond the knowledge or experience possessed by lay persons or dispels a misconception common among lay persons;

(B) The witness is qualified as an expert by specialized knowledge, skill, experience, training, or education regarding the subject matter of the testimony;

(C) The witness' testimony is based on reliable scientific, technical, or other specialized information. To the extent that the testimony reports the result of a procedure, test, or experiment, the testimony is reliable only if all of the following apply:

(1) The theory upon which the procedure, test, or experiment is based is objectively verifiable or is validly derived from widely accepted knowledge, facts, or principles;

(2) The design of the procedure, test, or experiment reliably implements the theory;

(3) The particular procedure, test, or experiment was conducted in a

way that will yield an accurate result.

{¶ 37} In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 589, 113 S.Ct. 2786 (1993), the United States Supreme Court called upon district courts to act as a "gatekeeper" in determining whether expert testimony on scientific matters is admissible under Federal Rule of Evidence 702. The four factors the trial court was advised to consider in evaluating an expert's theory or technique are (1) whether it can be, and has been, tested; (2) whether it has been subjected to peer review and publication; (3) what its known, or potential, rate of error is, and whether standards controlling its operation exist; and (4) whether it is generally accepted in the field. *Daubert* at 593-594. The Ohio Supreme Court has adopted the factors in *Daubert* for analyzing issues arising under Ohio's Evid.R. 702, in both civil cases, *Miller v. Bike Athletic Co.*, 80 Ohio St.3d 60 (1998), and criminal cases, *State v. Nemeth*, 82 Ohio St.3d 202 (1999).

{¶ 38} The factors identified in *Daubert* are not to be rigidly applied but, instead, are intended to serve as guidelines for trial courts to consider in applying Evid.R. 702. The *Daubert* court stated that "[t]he inquiry envisioned by Rule 702 is, we emphasize, a flexible one," *id.* at 594, and that "[m]any factors will bear on the inquiry, and we do not presume to set out a definitive checklist or test[.]" *Id.* at 593. In *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152-153, 119 S.Ct. 1167 (1999), the court pointed out that "*Daubert's* list of specific factors neither necessarily nor exclusively applies to all experts or in every case[.]" *id.* at 141, and whether the factors are even relevant in a given case will "depend[ ] on the nature of the issue, the expert's particular expertise, and the subject of his testimony." *Id.* at 150 (internal marks omitted).

{¶ 39} In *United States v. Brown*, 279 F.Supp.2d 1238 (S.D. Alabama 2003), the district court determined that the government's experts' testimony that a substance called 1, 4 butanediol (BD) was "substantially similar" to a controlled substance called gamma-

hydroxybutyric acid (GHB), and thus was a "controlled substance analogue" within the meaning of the federal Controlled Substance Act in 21 U.S.C. 813, was reliable under Evidence Rule 702 and *Daubert*. The government's experts used the "visual comparison method" in determining whether the substances were substantially similar, in which they used "sticks-and-letters" diagrams to illustrate their conclusions that the substances were substantially similar. See *id.* at 1249.

{¶ 40} In *United States v. Brown*, 415 F.3d 1257, 1266-1269 (11th Cir. 2005), the court affirmed the district court's decision that the visual comparison or "visual assessment" method used by the government's experts was reliable under Evid.R. 702 and *Daubert* even though (1) the method met only one of the four *Daubert* factors, namely, it was deemed "generally accepted" and (2) the governments' expert witnesses "conceded that their method and conclusions were not quantitative or testable by the scientific method" but, instead, "were based on visual comparisons of the molecular models combined with expert knowledge of chemistry." *Id.* at 1268.

{¶ 41} Here, the state presented the same type of expert testimony that was presented in *Brown*, which the district court found to be reliable, and which the Eleventh Circuit affirmed on appeal. The trial court in this case, citing the Eleventh Circuit's opinion in *Brown*, determined that the methodology and testing procedures of the state's expert witnesses met the threshold requirements of Evid.R. 702 and *Daubert*. The trial court also found that the jury was ultimately responsible for deciding whether the substances in question were "substantially similar" to illegal substances. We conclude, however, that the trial court abused its discretion in not granting appellant's request for a *Daubert* hearing on appellant's motion in limine to exclude the state's expert testimony.

{¶ 42} Initially, this court is well aware that a trial court's decision whether or not to hold a *Daubert* hearing is a matter within its sound discretion, and the court's decision is not

to be overturned unless it abuses its discretion, i.e., the decision is arbitrary, unconscionable or unreasonable. See *Brown*, 415 F.3d at 1264-1266 (emphasizing the difficulty of convincing an appellate court to reverse a district court's judgment on *Daubert* grounds and the importance of granting trial courts discretion on *Daubert*-related issues). Nevertheless, we conclude that the trial court abused its discretion by not holding a *Daubert* hearing under the circumstances of this case.

{¶ 43} The visual assessment/comparison method used by the district court in *Brown* and upheld as reliable under the *Daubert* factors by the Eleventh Circuit has come under heavy criticism from scholars. See, e.g., 2 Paul C. Giannelli, Edward J. Imwinkelried, Andrea Roth and Jane Campbell Moriarity, "Scientific Evidence" (5th Ed.2012), Section 23.06-23.07, 726-761 ("Giannelli and Imwinkelried"). Giannelli and Imwinkelried describe the "underlying evidentiary problem in CSA cases as follows:

On the one hand, prosecution experts consistently claim that a simple visual assessment of two-dimensional stick-and-letters diagrams is the "best method of forming an opinion on structural similarity and is generally accepted in the scientific community." [Footnote omitted.] On the other hand, defense experts are adamant that visual comparison of such diagrams is unscientific in the extreme because conclusions based on such comparisons are "not quantitative or testable by the scientific method." [Footnote omitted.] Indeed, defense critics point out that some prosecution witnesses have frankly conceded that their conclusion is "a 'gut level thing' \* \* \* based on intuition \* \* \*." [Footnote omitted.] \* \* \* [This is] a troubling concession given the length of the sentences of imprisonment meted out for convictions based on such conclusions.

*Id.* at 734-735.<sup>1</sup>

{¶ 44} Giannelli and Imwinkelried concede that "exhibits depicting sticks-and-letters diagrams of the substances' chemical structures are arguably [footnote omitted] logically relevant" "[i]f the question is the degree of similarity between the chemical structure of two

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1. The first "[f]ootnote omitted" from the above quote contained a citation to *Brown*, 279 F.Supp. 2d at 1244, and the second and third "[f]ootnote[s] omitted" contained citations to *Brown*, 415 F.3d at 1267.

drugs[.]” However, they insist that a visual comparison or assessment of sticks-and-letters diagrams is “an inferior basis for the jury’s decision” on that issue, stating as follows:

The typical sticks-and-letters diagram submitted to a jury in a CS Analogue Act prosecution is a crude, very limited, two-dimensional depiction of some features of chemical structure in which each letter representing an atom is of the same size. The atomic mass units of atoms vary radically. For instance, while hydrogen atoms have an atomic mass unit of 1, the atomic mass unit of oxygen atoms is 16. Some sticks-and-balls diagrams use the same size balls for all atoms. Proportional sticks-and-balls diagrams, indicating the relative atomic weight of the atoms, are a more accurate depiction of chemical structure. Yet, as two-dimensional diagrams, both sticks-and-letters and sticks-and-balls diagrams are unrealistic. Objects such as atoms do not exist in only two dimensions; like human beings, they are three-dimensional. Just as sticks-and-balls diagram is more complete than a sticks-and-letters diagram, in turn a three-dimensional model is more accurate than a sticks-and-balls diagram. [Footnote omitted.] Further, all of these types of exhibits—two-dimensional sticks-and-letters diagrams sticks-and-balls diagrams, and three-dimensional models—embody scientific conventions. [Footnote omitted.] Most exhibits omit features, such as relative atomic weight and bonding. A chemist has a much better understanding of atomic weight than the typical layperson and certainly a superior knowledge of bonding rules. Given the ready availability of markedly superior potential evidence, it defies common sense to think that Congress wanted the jury’s decision to rest solely on a lay assessment of sticks-and-letters notations.

*Id.* at 743-744.

{¶ 45} Giannelli and Imwinkelried use a simple analogy to explain their objections to the visual comparison/assessment test:

It cannot be overemphasized how little information about chemical structure these [sticks-and-letters] diagrams convey. At the simplest level, an artist might draw a rudimentary stick figure—a circle for the head, one line for the body, two other lines for legs, and another two for arms. That type of drawing of a person roughly corresponds to a sticks-and-letters diagram of a molecule. To make the drawing more realistic, the artist might crook the arm and leg lines to depict elbows and knees. The artist could then add a short and pants or a skirt to indicate whether the person is male or female. Further, the artist could make the stick lines for legs proportionally thicker than those for arms. The artist might then progress to a doll and on to a mannequin. Even the mannequin, though, would not depict internal features such as a weak heart or a

bad back. Suppose that an artist prepared mannequins of two individuals. Standing alone, would a visual comparison of the mannequins be sufficient to support a judgment as to whether two persons were "substantially similar"? Quite frankly, it would make more sense to do that than to rest a judgment about the similarity of two molecules on a visual comparison of sticks-and-letters diagrams. It is highly doubtful that a professional chemist would accept such a comparison, without more, as an adequate basis for a conclusion that the structure of the two molecules is "substantially similar." [Footnote omitted.]

*Id.* at 749-750.

{¶ 46} No appellate court in this state has addressed whether the visual assessment/comparison method of analyzing possible controlled substance analogs, which the trial court accepted as reliable in this case, is in fact reliable. However, one common pleas court in this state, when confronted with issues similar to the ones presented here, has determined that this method is *not* reliable under Evid.R. 702 and *Daubert*, and therefore prohibited the state from presenting such evidence.

{¶ 47} In *State v. Silmi*, Cuyahoga C.P., No. CR 561754, Journal Entry and Opinion (Feb. 7, 2013), p. 1, the defendants were charged with six counts, including one count of trafficking in a controlled substance analog and one count of possessing a controlled substance analog, both first-degree felonies. The defendants moved to prohibit the state from presenting lab reports and expert testimony from the Cuyahoga County Regional Forensic Science Laboratory (CCRFSL) regarding the alleged controlled substance analogs at issue in that case, arguing the lab reports and expert testimony were based "purely on subjective observations" and thus should not be admitted into evidence. *Id.*

{¶ 48} The trial court held a two-day *Daubert* hearing on defendants' motion to exclude the CCRFSL's lab report and expert testimony. *Id.* The supervisor of CCRFSL's lab chemistry drug section, Paul Boggs, testified that following the 2011 enactment of Ohio's controlled substance analog statute, the CCRFSL began testing substances not only to

determine if they were controlled substances, but also to determine if they had a chemical structure "substantially similar" to a controlled substance and thus could be deemed a controlled substance analog. *Id.* at p. 1-2. If one of the CCRFSL's chemists determined that a potential analog was substantially similar to a controlled substance, the chemist's determination would be presented to CCRFSL's other six chemists. *Id.* at p. 2. The CCRFSL would issue an opinion determining that the potential analog was "substantially similar" to a controlled substance *only* if there was 100 percent agreement among the chemists that the standard of "substantial similarity" had been met. *Id.*

{¶ 49} Over time, the CCRFSL established two guidelines: First, in regards to synthetic cannabinoids, an analog drug "had to be within the same chemical family" as the controlled substance, and second, "the original structural backbone of the scheduled substance had to be unchanged." *Id.* The CCRFSL's chemists compared the two substances in question by placing, side by side, the "stick and letter" chemical structures of the potential analog and the scheduled controlled substance. *Id.* While the CCRFSL had made some limited consultations with other labs in Ohio regarding specific questions on certain potential analogs, no statewide database, protocols or any formal organization or mechanism of standardization regarding the testing of potential analogs exists. *Id.* Applying this process to the case before it, the CCRFSL found two potential drug analogs: (1) AM2201, which was determined to be an analog of JWH018, a controlled substance, with the difference being that AM2201 has an additional fluorine atom, and (2) 4-MEC, which was determined to be an analog of methcathinone, a controlled substance, with the difference occurring in the nitrogen rings of the two substances. *Id.* at p. 2-3.

{¶ 50} At the conclusion of the Daubert hearing, the common pleas court in *Silmi* determined that the testimony and lab reports from the CCRFSL had to be excluded because "[b]ased upon *Daubert* and Evid.R. 702, the theory upon which [CCRFSL's] test[ing] is based

is supposed to be objectively verifiable or derived from widely accepted knowledge, facts, or principles[,]" yet there is "no objective, reliable test in the current testing of potential analogs by the CCRFSL." *Id.* at p. 4. The common pleas court found that "[t]he vague and undefined term of 'substantially similar' left the CCRFSL to devise an unguided subjective testing procedure." *Id.* The common pleas court noted that both of the state's expert witnesses, including Boggs, acknowledged that the CCRFSL test is a subjective test, with Boggs admitting that CCRFSL's testing of potential analogs "is based on something. It is just not based on something the way we would like it to be based on." *Id.*

{¶ 51} The common pleas court in *Silmi* also stated that "[t]here is no statewide or nationwide resource or protocol for th[e] [CCRFSL] lab to draw from and no formal organization or guidance regarding the testing of potential analogs." *Id.* Noting that the testing and procedures of the CCRFSL's lab "should be conducted in a way that will yield an accurate result[,]" the court found that it was "hard to determine what would be an accurate result when there has been no peer review, no error rates determined, and no real comparison or common protocol even between counties in Ohio." *Id.* at p. 5. The common pleas court also stated that it had "no way to determine if there is general acceptance to this methodology because it has never been compared to any other lab's methodology." *Id.*

{¶ 52} This court does not necessarily agree with the statements made by Gianelli and Immwinkler in *Scientific Evidence* or the common pleas court's decision in *Silmi*. However, we are convinced that the nature of the issues presented by this case warranted a Daubert hearing on appellant's motion in limine to exclude the state's expert testimony and that the trial court abused its discretion by not granting him one. The meaning of "substantially similar" is a novel issue in Ohio. There is no precedent on the question except for federal case law. Therefore, it was not appropriate for the trial judge to resolve this issue during the trial. Additionally, holding such a hearing would have enabled the trial court to

establish a standard for the jury to consider in determining the meaning of the phrase "substantially similar" rather than requiring the jury members to develop their own standard on the question.

{¶ 53} In light of the foregoing, appellant's second assignment of error is sustained to the extent indicated.

{¶ 54} In his third assignment of error, appellant argues his convictions were against the sufficiency and weight of the evidence, and in his fourth assignment of error, he argues the trial court erred in imposing an 11-year mandatory sentence for his conviction on Count Four, as this sentence was contrary to law and contrary to the trial court's own finding that an eight-year sentence was appropriate. However, appellant's third and fourth assignments of error have been rendered moot as a result of our disposition of appellant's second assignment of error, and therefore we need not decide them. App.R. 12(A)(1)(c).

{¶ 55} The judgment of the trial court is reversed, and this cause is remanded for further proceedings consistent with this opinion.

RINGLAND, P.J., and S. POWELL, J., concur.