

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF VIRGINIA
CHARLOTTESVILLE DIVISION

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| UNITED STATES OF AMERICA |) | |
| |) | Criminal Action No. 3:12CR00009 |
| v. |) | |
| |) | <u>MEMORANDUM OPINION</u> |
| STEPHEN DOMINICK MCFADDEN, |) | |
| |) | By: Hon. Glen E. Conrad |
| Defendant. |) | Chief United States District Judge |

This case is presently before the court on the defendant's motion for judgment of acquittal. For the reasons set forth below, the motion will be denied.

Background

On November 14, 2012, the defendant, Stephen Dominick McFadden, was charged in a nine-count superseding indictment returned by a grand jury in the Western District of Virginia. Count One charged the defendant with conspiring to distribute and possess with intent to distribute, for human consumption, controlled substance analogues, in violation of 21 U.S.C. § 841(a)(1) and 846. Counts Two through Nine charged the defendant with distributing controlled substance analogues, for human consumption, in violation of 21 U.S.C. § 841(a)(1).

The charges stemmed from McFadden's sale and distribution of products marketed as "bath salts," which contained one or more of the following substances: 3,4-methylenedioxymethcathinone (commonly known as "methylone" or "MDMC"); 3,4-methylenedioxypropylvalerone (commonly known as "MDPV"); and 4-methyl-ethylcathinone (commonly known as "4-MEC"). The indictment alleged that methylone, MDPV, and 4-MEC were controlled substance analogues during the time periods charged in the indictment, and that

McFadden's activities were therefore unlawful under the Controlled Substance Analogue Enforcement Act of 1986 ("Analogue Act"). See 21 U.S.C. §§ 802(32), 813.¹

McFadden's co-defendant, Lois McDaniel, began selling bath salts from her video store in Charlottesville, Virginia in 2011. During the course of investigating McDaniel, law enforcement agents determined that she was purchasing the bath salts from a supplier in New York, later identified as McFadden. On February, 15, 2012, a search warrant was executed at an office unit occupied by McFadden in Staten Island, New York. During the search, agents recovered bath salts, scales, plastic bags, and other items associated with the distribution of these substances.

McFadden went to trial, and, on January 10, 2013, a jury returned a verdict of guilty on all nine counts. McFadden subsequently filed a motion for judgment of acquittal, in which he challenges the constitutionality of the Analogue Act; the propriety of the court's instructions to the jury; the admission of certain expert testimony; and the sufficiency of the evidence to support his convictions.

¹ On October 21, 2011, the Drug Enforcement Administration exercised its emergency scheduling authority to designate methylone and MDPV as Schedule I controlled substances for at least one year. See 76 Fed. Reg. 65371 (Oct. 21, 2011) (amending 21 C.F.R. § 1308.11(g) to include methylone and MDPV). The superseding indictment reflected these amendments. Count One charged that, prior to October 21, 2011, the defendant conspired to distribute a mixture or substance containing methylone, MDPV, and 4-MEC, and that from October 21, 2011 until February 15, 2012, the defendant conspired to distribute a mixture or substance containing 4-MEC. Likewise, Counts Seven, Eight, and Nine, which charged conduct occurring after October 21, 2011, related solely to the distribution of 4-MEC, which remains unscheduled.

Discussion

I. The Constitutionality of the Analogue Act

McFadden contends that the Analogue Act is unconstitutionally vague as applied to him.

The Act defines a “controlled substance analogue” as:

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.

21 U.S.C. § 802(32)(A).² The Act further provides that “[a] controlled substance analogue shall, to the extent intended for human consumption, be treated, for the purposes of any Federal law as a controlled substance in schedule I.” 21 U.S.C. § 813.

“Due process requires that a criminal statute provide adequate notice to a person of ordinary intelligence that his contemplated conduct is illegal, ‘for no man shall be held criminally responsible for conduct which he could not reasonably understand to be proscribed.’”

Buckley v. Valeo, 424 U.S. 1, 77 (1976) (quoting United States v. Harriss, 347 U.S. 612, 617

² Although § 802(32)(A) contains the word “or” between clauses (ii) and (iii), the “vast majority of federal courts . . . have adopted [a] conjunctive reading,” which requires a controlled substance analogue to satisfy both clause (i) and either clause (ii) or (iii). United States v. Turcotte, 405 F.3d 515, 522 (7th Cir. 2005) (citing cases). Since both parties advocated for a conjunctive reading of the statute, the court assumed, for purposes of this case, that it is the correct one.

(1954)). Thus, “[t]he void-for-vagueness doctrine requires that penal statutes define the criminal offense with sufficient definiteness that ordinary people can understand what conduct is prohibited and in a manner that does not encourage arbitrary and discriminatory enforcement.” Kolender v. Lawson, 461 U.S. 352, 357 (1983). “[V]agueness challenges to statutes which do not involve First Amendment freedoms must be examined in the light of the facts of the case at hand.” United States v. Mazurie, 419 U.S. 544, 550 (1975).

Under existing circuit precedent interpreting the Analogue Act, McFadden is unable to establish that the Act lends itself to arbitrary enforcement. In United States v. Klecker, 348 F.3d 69 (4th Cir. 2003), the United States Court of Appeals for the Fourth Circuit held that “[t]he requirement of preventing arbitrary enforcement is easily satisfied” by the Analogue Act. Id. at 71. In reaching this conclusion, the Fourth Circuit explained as follows:

In order to show an Analogue Act violation, the Government must prove (1) substantial chemical similarity between the alleged analogue and a controlled substance; see 21 U.S.C. § 802(32)(A)(i); (2) actual, intended, or claimed physiological similarity (in other words, that the alleged analogue has effects similar to those of a controlled substance or that the defendant intended or represented that the substance would have such effects), see id. § 802(32)(A)(ii), (iii); and (3) intent that the substance be consumed by humans, see id. § 813. The intent requirement alone tends to defeat any vagueness challenge based on the potential for arbitrary enforcement.

Id. (emphasis in original) (additional internal citations omitted); see also United States v. Hofstatter, 8 F.3d 316, 322 (6th Cir. 1993) (rejecting a similar vagueness challenge and holding that the intent requirement set forth in 21 U.S.C. § 813 “sufficiently constrains law enforcement officials and discourages arbitrary or discriminatory application of the laws”).

The court also rejects McFadden’s argument that the Analogue Act fails to provide adequate notice that distributing a mixture or substance containing methyldone, MDPV, or 4-

MEC would be unlawful. In reaching this decision, the court is again guided by the Fourth Circuit's opinion in Klecker. While Klecker involved substances other than methylone, MDPV, and 4-MEC, its analysis is instructive. Specifically, in addressing the issue of adequate notice, the Fourth Circuit determined that it was "useful to compare chemical diagrams of the controlled substance and the alleged analogue." Id. at 72 (citing United States v. McKinney, 79 F.3d 105, 108 (8th Cir. 1996), vacated on other grounds, 520 U.S. 1226 (1997)). The diagrams admitted into evidence in Klecker demonstrated similarities between DET, a controlled substance, and Foxy, the alleged analogue. Id. Although there were "important differences" between the two substances, the Fourth Circuit held that "the similarities in their structures would put a reasonable person on notice that Foxy might be regarded as a DET analogue, particularly if that person intended (as Klecker plainly did) that Foxy be ingested as a hallucinogen." Id. Accord McKinney, 79 F.3d at 108 (rejecting the defendant's vagueness challenge to the Analogue Act and emphasizing that "a reasonable layperson could, for example, have examined a chemical chart and intelligently decided for himself or herself, by comparing their chemical diagrams, whether the chemical structure of two substances were substantially similar"). While the record in Klecker contained evidence indicating that the defendant was aware that Foxy was a controlled substance analogue, the Fourth Circuit concluded that "the Analogue Act would not be unconstitutionally vague as applied to Foxy even with respect to a defendant who lacked actual notice." Klecker, 348 F.3d at 72.

In this case, one of the government's experts, Tom DiBerardino, a chemist with the Drug Enforcement Administration, testified regarding the chemical structures of MDPV, 4-MEC, and methylone. DiBerardino opined that the chemical structures of MDPV and 4-MEC are

substantially similar to that of methcathinone, a Schedule I controlled substance, and that the chemical structure of methylone is substantially similar to that of MDMA, which is also known as ecstasy. During DiBerardino's testimony, the government presented diagrams of each substance's chemical structure for the jury to compare. The government also presented diagrams on which the chemical structures of the alleged analogues were superimposed on the respective controlled substances to further emphasize their common features. Having examined the chemical diagrams, the court is convinced that they would put a reasonable person on notice that MDPV and 4-MEC might be regarded as analogues of methcathinone, given the considerable similarities in their chemical structures. The court likewise concludes that the similarities between the chemical structures of methylone and MDMA would put a reasonable person on notice that methylone might be regarded as an MDMA analogue. This is particularly true if that person intended for the analogues to be consumed as alternatives to illicit stimulants, and, in this case, the government's evidence, viewed in its favor, established that this was McFadden's intention.

McFadden's remaining statutory challenges fare no better. The fact that the Analogue Act "does not specify any particular drug that may not be sold" does not render it unconstitutionally vague. (Docket No. 134 at 8.) As other courts have recognized, "[t]he object of the Analogue Act is to prevent underground chemists from producing slightly modified drugs that are legal but have the same effects and dangers as scheduled controlled substances." United States v. Hodge, 321 F.3d 429, 432 (3d Cir. 2003); see also United States v. Washam, 312 F.3d 926, 933 (8th Cir. 2002) ("One of Congress's purposes for passing the Analogue Statute was to prohibit innovative drugs that are not yet listed as controlled substances."). Under the existing

law, “all substances that meet the definition of a controlled substance analogue are illegal” and, thus, “[n]o list of controlled substance analogues is necessary.” United States v. Fisher, 289 F.3d 1329, 1337 (11th Cir. 2002). Indeed, “[g]iven the creativity of amateur chemists, such a list might well be impossible to compile.” Hofstatter, 8 F.3d at 322. Accordingly, the court agrees with the government that the failure to specifically list controlled substance analogues does not render the Analogue Act impermissibly vague.

The court is also unpersuaded by the defendant’s argument that the failure to define the term “human consumption” renders the Analogue Act void for vagueness. It is well settled that “a criminal statute need not define explicitly every last term within its text, for as the Supreme Court has repeatedly explained, where ‘terms used in a statute are undefined, we give them their ordinary meaning.’” United States v. Day, 700 F.3d 713, 725 (4th Cir. 2012) (quoting Jones v. United States, 529 U.S. 848, 855 (2000)); see also Chapman v. United States, 500 U.S. 453, 462 (1991) (construing the undefined term “mixture” in 21 U.S.C. § 841(b)(1)(B)(v) by looking to its ordinary meaning and holding that such a construction did not leave the statute unconstitutionally vague).

Here, the court is convinced that the ordinary meaning of the term “human consumption,” as it is used in the context of the Analogue Act, clearly encompasses the use of a substance, by a human being, in a manner that would introduce the substance into the body. This conclusion is supported by legal dictionaries, which define “consumption” to include “use.” See, e.g., Black’s Law Dictionary 359 (9th ed. 2009) (defining “consumption” as “the use of a thing in a way that exhausts it”); Ballentine’s Law Dictionary (3d ed. 2010) (available on LEXIS) (defining “consumption” as “use of a thing, sometimes, but not necessarily, to the complete extermination

of the thing.”). The conclusion is further supported by case law and statutes from other jurisdictions defining “consumption” and “human consumption,” in the context of controlled substances. See State v. Ireland, 2005 UT App. 22, P19 (Utah Ct. App. 2005) (concluding that the term “consumption,” as used in a state controlled substance statute, described the introduction of a substance into the body); see also Tex. Health & Safety Code § 481.002(21) (defining “human consumption” as “the injection, inhalation, ingestion, or application of a substance to or into the human body”); Mich. Comp. Laws Serv. § 333.7105(8) (defining “human consumption” to mean “application, injection, inhalation, or ingestion by a human being”); N.M. Stat. Ann. § 30-31-2(X) (defining “human consumption” to include “application, injection, inhalation, ingestion, or any other manner of introduction”).

The court, thus, rejects McFadden’s argument that “the only definition of [human consumption] that would seem to make sense in context would embrace the idea of ‘eat or drink.’” (Docket No. 134 at 14.) Such a limited reading would be completely at odds with the purpose of the Analogue Act. As many controlled substances are commonly used by injection and inhalation, the court does not think that Congress could have intended for the term “human consumption” to exclude such methods, or for the Act to otherwise extend only to analogues that are taken like food or drink. Instead, the court holds that other methods of introducing a substance into the body fall within the ordinary meaning of the term “human consumption,” as that term is used in the statute.

For all of these reasons, the court concludes that the Analogue Act is not unconstitutionally vague as applied to methylene, MDPV, and 4-MEC.

II. The Court's Instructions to the Jury

McFadden next argues that the court improperly instructed the jury on the elements of the conspiracy and distribution offenses charged in the indictment. During trial, McFadden requested an instruction that would have (1) advised the jury that a substance does not qualify as a controlled substance analogue unless it is both chemically similar to a particular controlled substance and physiologically similar to the same controlled substance; and (2) specified the controlled substance to which each of the alleged analogues must be compared. McFadden also proposed an instruction that would have required the government to prove, *inter alia*, that the defendant knew that chemical structures of the substances at issue were substantially similar to the chemical structures of controlled substances in Schedule I or II. The court instead gave its own instructions, to which McFadden objected.

For the conspiracy offense charged in Count One of the indictment, the jury was instructed that it had to be convinced that the government had proven each of the following elements beyond a reasonable doubt:

- FIRST: That beginning in or around June 2011, and continuing until February 15, 2012, two or more persons, directly or indirectly, reached an agreement or understanding to accomplish a common plan;
- SECOND: That the defendant knew the purpose of the agreement, and joined in it willfully, that is, with the intent to further the purpose of the plan;
- THIRD: That the purpose of the plan was to distribute or possess with intent to distribute, for human consumption, a mixture or substance containing MDPV, MDMC/Methylone, or 4-MEC, which has an actual intended, or claimed stimulant, depressant, or hallucinogenic effect on the central nervous system that is substantially similar to that or greater than the stimulant, depressant, or hallucinogenic

effect on the central nervous system of a controlled substance in Schedule I or II of the Controlled Substances Act; and

FOURTH: That the chemical structure of MDPV, MDMC/Methylone, or 4-MEC is substantially similar to the chemical structure of a controlled substance in Schedule I or II of the Controlled Substances Act.

(Docket No. 152 at 23-24.)

For the offense of distributing a controlled substance analogue, as charged in Counts Two through Nine of the indictment, the jury was instructed that the government was required to prove, as to each count, the following essential elements beyond a reasonable doubt:

FIRST: That the defendant knowingly and intentionally distributed a mixture or substance that has an actual, intended, or claimed 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 of the Controlled Substances Act;

SECOND: That the chemical structure of the mixture or substance is substantially similar to the chemical structure of a controlled substance in Schedule I or II of the Controlled Substances Act; and

THIRD: That the defendant intended for the mixture or substance to be consumed by humans.

(Id. at 34.)

After further review, the court remains convinced that the foregoing instructions are consistent with the plain language of the Analogue Act and the Fourth Circuit's decision in Klecker. The second and third clauses of § 802(32)(A), which relate to actual and claimed physiological effects, require the alleged analogue to be substantially similar to "a controlled substance," rather than "the controlled substance" used to prove chemical similarity in clause

(i). 21 U.S.C. § 802(32)(A) (emphasis added). Likewise, in setting forth the elements that must be proven to establish an Analogue Act violation, the Fourth Circuit observed that the government must prove substantial chemical similarity between the alleged analogue and “a controlled substance,” and “that the alleged analogue has effects similar to those of a controlled substance or that the defendant intended or represented that the substance would have such effects.” Klecker, 348 F.3d at 71 (emphasis added). The court elected to use the same language in instructing the jury in this case, and the defendant has failed to persuade the court that the instructions were in error in this regard.

The court is also of the opinion that its instructions on the scienter elements of the conspiracy and distribution offenses were appropriate. As set forth above, the court’s instructions required the government to prove that the defendant intended for the substances to be consumed by humans, in accordance with 21 U.S.C. § 813. The court’s instructions also required the government to prove that the defendant knowingly and intentionally distributed a substance that had an actual, intended, or claimed physiological effect that was substantially similar to or greater than that of a controlled substance, and that the purpose of the conspiratorial agreement was to distribute or possess with intent to distribute such substances. While McFadden would have also required the government to prove that he knew that the alleged analogues have a chemical structure that is substantially similar to the chemical structure of a controlled substance and, thus, that they were, in fact, controlled substance analogues under the Act, the court remains convinced that this is not required by the statute or Fourth Circuit precedent. See Id. at 71-72 (setting forth the elements of an Analogue Act violation and noting that the Act “would not be unconstitutionally vague as applied to Foxy even with respect to a

defendant who lacked actual notice [that Foxy was a controlled substance analogue]”); see also United States v. DeSurra, 865 F.2d 651, 653 (5th Cir. 1989) (“If a defendant possesses an analogue, with intent to distribute or import, the defendant need not know that the drug he possesses is an analogue. It suffices that he know what drug he possesses, and that he possess it with the statutorily defined bad purpose.”); but see United States v. Turcotte, 405 F.3d 515, 522 (7th Cir. 2005) (holding that “[a] defendant must know that the substance at issue has a chemical structure substantially similar to that of a controlled substance, and he or she must either know that it has similar physiological effects or intend or represent that it has such effects”).

The court also declined to give the defendant’s proposed instruction distinguishing a conspiracy from a buyer-seller relationship, and instead gave its own buyer-seller instruction to the jury. To the extent defendant maintains that this decision was erroneous, the court disagrees.

The court’s instructions to the jury on the conspiracy count included the following:

I . . . tell you that the existence of a mere buyer-seller relationship alone is insufficient to support a conspiracy conviction, even if the buyer intends to resell the purchased drugs to others. However, you may consider the purchase of drugs for resale, along with all the other evidence, in determining whether there was a conspiratorial agreement between the buyer and seller, or other persons, to distribute or possess with intent to distribute, controlled substance analogues.

(Docket No. 152 at 29.) This instruction is clearly consistent with existing Fourth Circuit precedent. See United States v. Hackley, 662 F.3d 671, 679 (4th Cir. 2011) (“We have held that evidence of a continuing buy-sell relationship when coupled with evidence of large quantities of drugs, or continuing relationships and repeated transactions, creates a reasonable inference of [a conspiratorial] agreement.”) (internal citation and quotation marks omitted); United States v. Mills, 995 F.2d 480, 485 n.1 (4th Cir. 1993) (noting that “evidence of a buy-sell transaction is at least relevant (i.e. probative) on the issue of whether a conspiratorial relationship exists”).

McFadden’s proposed instruction, taken from a former edition of the Seventh Circuit Pattern Federal Jury Instructions, included a list of nine factors that the jury could consider in deciding whether a buyer and a seller formed a conspiracy to distribute controlled substance analogues.³ Based on the Seventh Circuit’s criticism of the instruction in United States v. Colon, 549 F.3d 565, 570-571 (7th Cir. 2008), the instruction has been modified to delete the factors requested by McFadden. See Pattern Federal Jury Instructions for the Seventh Circuit – Criminal, No. 5.10(A) (2012 ed.) (“In Colon, the Seventh Circuit was critical of the previously-adopted pattern instruction on this point, which included a list of factors to be considered. The Committee has elected to simplify the instruction . . .”).

Accordingly, for the reasons stated, the court concludes that McFadden’s motion must be denied to the extent he argues that the court erred in rejecting his proffered jury instructions.

III. Admissibility of Expert Testimony

McFadden next argues that the court should not have permitted evidence concerning animal studies. At trial, McFadden moved to exclude testimony from one of the government’s experts, Dr. Cassandra Prioleau, on the ground that her opinions were based on animal studies involving controlled substances. After considering the reliability and relevance standards set

³ The requested factors were as follows: (1) whether the seller extended credit to the buyer for the purchase of the controlled substance analogues; (2) whether the seller instructed the buyer in how to distribute controlled substance analogues; (3) whether the seller had a shared stake in the buyer’s resale of the controlled substance analogues; (4) whether the seller controlled the buyer in the conduct of his resale of the controlled substance analogues; (5) the quantity of controlled substance analogues sold; (6) the length of time over which the seller sold controlled substance analogues to the buyer; (7) whether one of the parties advised the other on the conduct of the other’s business; (8) whether either had agreed to warn the other of threats to the business from competing dealers or from law-enforcement authorities; and (9) whether there was any understanding between them limiting how either conducted their business. (Docket No. 139 at 9.)

forth in Rule 702 of the Federal Rules of Evidence⁴ and Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993),⁵ the court denied the motion in open court, finding that there was a sufficient basis for receipt of Dr. Prioleau's opinions.

For the reasons stated on the record, the court remains convinced that Dr. Prioleau's testimony was properly admitted, and that the alleged shortcomings identified by the defendant went to the weight it should be given rather than its admissibility. The animal studies relied upon by Dr. Prioleau were thoroughly challenged on cross-examination and by McFadden's own expert witness, and it was ultimately up to the jury to decide whether her testimony was credible and how much weight to give her opinions. Accordingly, the court concludes that it did not err in admitting Dr. Prioleau's testimony, and that the defendant's motion for judgment of acquittal on this ground must be denied. See United States v. Moreland, 437 F.3d 424, 431 (4th Cir. 2006) (emphasizing that "[t]he court need not determine that the proffered expert testimony is irrefutable or certainly correct," since "[a]s with all other admissible evidence, expert testimony

⁴ Rule 702 provides that a witness "who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case." Fed. R. Evid. 702.

⁵ In Daubert, the Supreme Court announced five factors that the trial court may use in assessing the relevancy and reliability of proffered expert testimony: (1) whether the particular scientific theory "can be (and has been) tested"; (2) whether the theory "has been subjected to peer review and publication"; (3) the technique's "known or potential rate of error"; (4) the "existence and maintenance of standards controlling the technique's operation"; and (5) whether the technique has achieved "general acceptance" in the relevant scientific or expert community." Daubert, 509 U.S. at 593-94. Rather than providing a definitive or exhaustive list, Daubert illustrates the types of factors that will "bear on the inquiry." Id. at 593. The Supreme Court emphasized that the analysis must be "a flexible one." Id. at 594; see also Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 141-42 (1999) (holding that Daubert's factors neither necessarily nor exclusively apply to every expert).

is subject to testing by ‘vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof’”) (quoting Daubert, 509 U.S. at 596).

IV. The Sufficiency of the Evidence

Finally, McFadden challenges the sufficiency of the evidence to support his convictions. Specifically, McFadden argues that the evidence was insufficient to establish that methylene, MDPV, and 4-MEC have actual, intended, or claimed stimulant effects on the central nervous system that are substantially similar to or greater than the stimulant effects on the central nervous system of a controlled substance in Schedule I or II of the Controlled Substances Act. For the following reasons, the court is unable to agree.

When a motion for judgment of acquittal is based on a claim of insufficient evidence, the jury verdict “must be sustained if there is substantial evidence, taking the view most favorable to the Government, to support it.” Glasser v. United States, 315 U.S. 60, 80 (1942). “Substantial evidence is evidence that a reasonable finder of fact could accept as adequate and sufficient to support a conclusion of a defendant’s guilt beyond a reasonable doubt.” United States v. Green, 599 F.3d 360, 367 (4th Cir. 2010). In determining whether substantial evidence supports the verdict, the court considers both circumstantial and direct evidence, drawing all reasonable inferences from such evidence in the government’s favor. United States v. Harvey, 532 F.3d 326, 333 (4th Cir. 2008). The court does not reweigh the evidence or reassess the jury’s determination of witness credibility, United States v. Brooks, 524 F.3d 549, 563 (4th Cir. 2008), and can overturn a conviction on insufficiency grounds “only when the prosecution’s failure is clear,” United States v. Moye, 454 F.3d 390, 394 (4th Cir. 2006) (internal quotation marks omitted).

Applying these principles, the court is convinced that the government presented sufficient evidence to establish actual, intended, or claimed physiological similarity between each of the alleged analogues and a controlled substance. Specifically, the jury heard sufficient evidence to find that methylone, MDPV, and 4-MEC have actual, intended, or claimed stimulant effects on the central nervous system that are substantially similar to or greater than the stimulant effects on the central nervous system of a controlled substance in Schedule I or II of the Controlled Substances Act.

Dr. Prioleau, a drug science specialist employed by the Drug Enforcement Administration, testified as an expert witness for the government on the physiological effects of the alleged analogues. Dr. Prioleau first summarized her evaluation of methylone. Based on her review of drug discrimination studies involving animals, as well as case reports and other scientific literature, Dr. Prioleau opined that methylone would have stimulant effects on the central nervous system that are substantially similar to that of MDMA (ecstasy), a Schedule I controlled substance.

In evaluating the effects of MDPV, Dr. Prioleau reviewed drug discrimination and locomotor studies involving animals, as well as case reports detailing the effects that people experienced when taking MDPV. Additionally, Dr. Prioleau performed a structural activity relationship analysis. Based on the results of that analysis, as well as the reports contained in the existing scientific literature, Dr. Prioleau opined that MDPV would have stimulant effects on the central nervous system that are substantially similar to those of methcathinone, a Schedule I controlled substance.

With respect to 4-MEC, Dr. Prioleau testified that it was an emerging substance and, thus, that there were not yet any published studies on its pharmacological effects. Consequently, Dr. Prioleau performed a structural activity relationship analysis, which incorporated a review of relevant scientific literature. Based on that analysis, Dr. Prioleau opined that 4-MEC would also have stimulant effects on the central nervous system substantially similar to those of methcathinone.

The court is of the opinion that Dr. Prioleau's testimony, standing alone, was sufficient to allow a reasonable juror to find that methylone has stimulant effects substantially similar to or greater than those of MDMA, and that MDPV and 4-MEC have stimulant effects substantially similar to or greater than those of methcathinone.⁶ While McFadden criticizes Dr. Prioleau's testimony on the basis that she relied on "qualitative" analyses, as opposed to "quantitative" evaluations of the alleged analogues, McFadden's argument is unsupported by the existing case law applying the Analogue Act. See, e.g., United States v. Brown, 415 F.3d 1257, 1267-68, 1272 (11th Cir. 2005) (holding that the visual assessment method used by the governments' experts to assess substantial similarity under § 802(32)(A)(i), while not quantitative or testable by scientific method, was admissible, and that the expert testimony provided a reasonable basis for concluding beyond a reasonable doubt that the chemical structure of the alleged analogue was substantially similar to that of a controlled substance); Klecker, 228 F. Supp. 2d 720, 729 (E.D. Va. 2002) (rejecting the defense expert's attempts "to apply the same test for finding a

⁶ Thus, the court notes that, even if the defendant is correct in arguing that an alleged analogue must be both chemically and physiologically similar to the same controlled substance to meet the requirements of § 802(32)(A), the government's evidence was sufficient in this regard. As summarized above, the government's evidence established that the chemical structure of methylone is substantially similar to that of MDMA, and that MDPV and 4-MEC have chemical structures substantially similar to the chemical structure of methcathinone.

substantially similar stimulant, depressant or hallucinogenic effect under the statute as the medical community requires for the approval of new prescription drugs to be utilized in medical treatment”). Moreover, the fact that McFadden provided his own expert testimony from Dr. Matthew Lee does not undermine the court’s conclusion as to the sufficiency of the government’s evidence. See Brown, 415 F.3d at 1271 (“That a defendant has provided some testimony to support his theory of the case is not enough to show insufficient evidence, because the factfinder is free to reject that testimony.”).

In addition to Dr. Prioleau’s expert opinions, the government presented testimony from Toby Sykes, who purchased bath salts from Lois McDaniel, and consumed them by mixing the bath salts with water and injecting them into his body. Sykes testified that he regularly used methamphetamine, a Schedule II controlled substance, from 1987 until 2006, and that the effects of the bath salts he purchased from McDaniel were more potent than those of methamphetamine.⁷ While McFadden argues that there were no laboratory certificates confirming what Sykes consumed, there was sufficient evidence for the jury to infer that the substances consumed by Sykes were the same substances that McDaniel purchased from McFadden.

In addition to the foregoing testimony, the government played a recorded telephone call from August 25, 2011, during which McFadden compared one of his bath salt products containing 4-MEC to cocaine. During the same conversation, McFadden referenced MDPV

⁷ Sykes’ comparison to methamphetamine was consistent with additional testimony provided by Dr. Prioleau. When asked to describe the actual effects that methylone, MDPV, and 4MEC would have on the central nervous system, Dr. Prioleau testified that the effects would include, among others, decreased appetite, restlessness, and increased blood pressure, heart rate, and body temperature. Dr. Prioleau noted that such effects are common characteristics of stimulants, and, thus, that other stimulants, such as cocaine and methamphetamine, have similar effects.

when describing another bath salt product that he compared to crystal methamphetamine. The court agrees with the government that this evidence further supports the jury's findings with regard to physiological similarity under § 802(32)(A).

In sum, the evidence was sufficient to establish, beyond a reasonable doubt, that methylone, MDPV, and 4-MEC have actual, intended, or claimed stimulant effects on the central nervous system that are substantially similar to or greater than those of a controlled substance in Schedule I or II. In the absence of any other meritorious arguments, McFadden's convictions must be sustained.

Conclusion

For the reasons stated, McFadden's motion for judgment of acquittal will be denied. The Clerk is directed to send certified copies of this memorandum opinion to all counsel of record.

ENTER: This 10th day of May, 2013.

 /s/ Glen E. Conrad
Chief United States District Judge

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF VIRGINIA
CHARLOTTESVILLE DIVISION

| | | |
|----------------------------|---|------------------------------------|
| UNITED STATES OF AMERICA |) | |
| |) | Criminal Action No. 3:12CR00009 |
| v. |) | |
| |) | <u>ORDER</u> |
| STEPHEN DOMINICK MCFADDEN, |) | |
| |) | By: Hon. Glen E. Conrad |
| Defendant. |) | Chief United States District Judge |

For the reasons stated in the accompanying memorandum opinion, it is now

ORDERED

that the defendant's motion for judgment of acquittal is **DENIED**.

The Clerk is directed to send certified copies of this order and the accompanying memorandum opinion to all counsel of record.

ENTER: This 10th day of May, 2013.

/s/ Glen E. Conrad
Chief United States District Judge