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FROM THE EDITOR-IN-CHIEF

Dead Readers,

Thank you for your readership and continuing support of the Criminal Law Practitioner. Being the only student-run publication dedicated exclusively to criminal law issues at American University Washington College of Law, we appreciate your interest in our work and we hope you find this edition to be a thought provoking, stimulating combination of pieces.

This edition was possible through the hard work of our Executive Board, senior staffers, and junior staffers. I would like to thank my entire board, but specifically give a shout out to Lisa Sendrow and Emily Osofsky, who oversaw each of these two published pieces, while managing their respective junior staffers.

We enjoyed reading these pieces an immense amount and are excited to be able to share them with the rest of the criminal law community. Enjoy!

Sincerely,

Editor-in-Chief
Dolores Sinistaj

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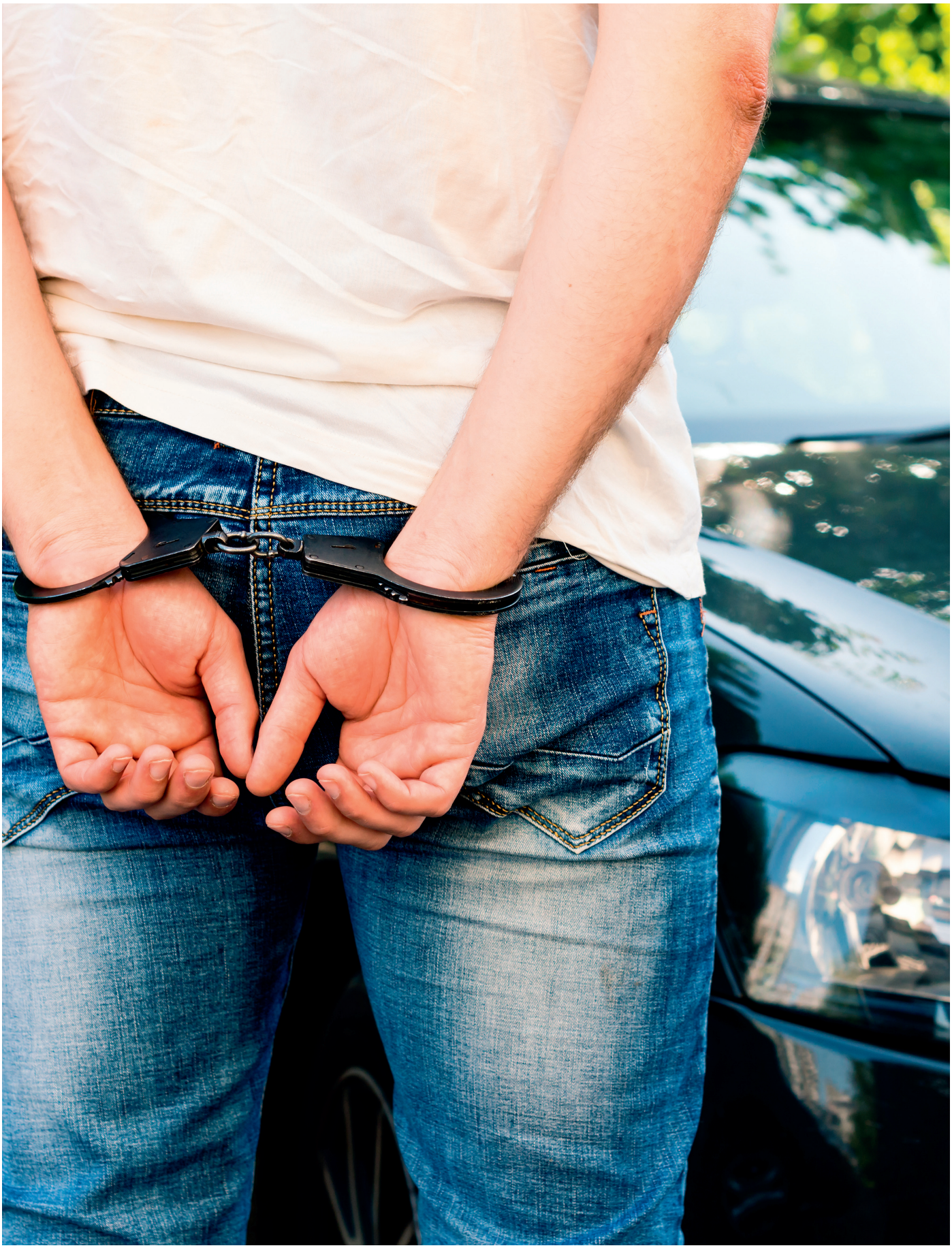

A Perfect Storm: New Mexico as a Case Study for Driving While Intoxicated and Driving Under the Influence Investigation and Prosecution Post-*Birchfield*

Cynthia Armijo[1]

Abstract: Changes in societal acceptance of the medicinal and recreational use of marijuana has had a significant impact on the investigation and prosecution of driving while under the influence of marijuana cases. The increased amount of marijuana use has resulted in an increase in driving while under the influence investigations and prosecutions involving marijuana. Adding to the increasing numbers of driving while under the influence cases, the Birchfield *decision added an additional hurdle to overcome by prohibiting law enforcement from obtaining blood samples without a warrant. This article discusses the investigation and prosecution of driving while under the influence of drug cases before and after* Birchfield. *It also addresses how New Mexico case law has interpreted the requirements of* Birchfield *to New Mexico law. Finally, suggestions are offered about what should be done in the future to address the perfect storm of the post-*Birchfield *limitations of blood draws without consent and the increasing numbers of suspects driving under the influence of marijuana.*

Societal acceptance of marijuana has undergone significant changes in recent years. In the past, marijuana was considered deviant, pathological, and criminogenic, resulting in laws that restricted its use.[2] The strict prohibition of marijuana resulted in a war on drugs based on the presumption that marijuana was considered a gateway drug.[3] In the past, offenders faced significant jail/prison time for possession of marijuana.[4] Recently, society's perspectives of marijuana have changed, resulting in changes to the law regarding marijuana use.[5] Once considered a pariah of society, marijuana is now becoming more and more respected for its medicinal benefits.[6] Some states have even condoned recreational use of marijuana by minimizing the penalties associated with marijuana from a criminal offense resulting in jail time to a civil penalty.[7]

Despite changes in societal and legislative acceptance of marijuana, there are collateral issues that the legalization of marijuana has created. Marijuana use, as it relates to driving while intoxicated laws, has changed significantly after amendments to laws dealing with marijuana use. As a result, law enforcement now has to address an increase in the number of suspects under

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2 *See generally* Erich Goode, *Marijuana and the Politics of Reality*, 10 J. Health & Soc. Behav. 83 (1969).

3 *See* Jeffrey DeSimone, *Is Marijuana a Gateway Drug?*, 24 E. Econ. J. 149, 160–61 (1998) (discussing evidence of marijuana as a gateway to cocaine).

4 *See* Diane E. Hoffmann & Ellen Weber, *Medical Marijuana and the Law*, 362 New Eng. J. Med. 1453, 1453 (2010).

5 *See generally* Richard A. Grucza et al., *Cannabis decriminalization: A study of recent policy change in five U.S. states*, 59 Int'l J. Drug Pol'y 67 (2018).

6 *See generally* R. Jan Gurley et al., *Medicinal Marijuana: A Comprehensive Review*, 30 J. Psychoactive Drugs 137 (1998).

7 *See* Rosalie Liccardo Pacula et al., *Marijuana Decriminalization: What Does it Mean in the United States?* 4–10 (Nat'l Bureau of Econ. Research, Working Paper No. 9690, 2003).

the influence of marijuana while driving a motor vehicle.[8] In 2016, the U.S. Supreme Court further complicated matters when it decided *Birchfield*.[9] In *Birchfield*, the U.S. Supreme Court decided that imposing an increased penalty if a suspect refused to submit to a blood test was unconstitutional.[10] Driving under the influence cases involving marijuana have always been difficult to prove. However, the decision handed down by the U.S. Supreme Court in *Birchfield*, made marijuana cases even more difficult to prosecute.[11] This article will analyze New Mexico driving while intoxicated law and the changes that have resulted in the prosecution of these cases in the wake of *Birchfield*.

I. New Mexico Driving While Intoxicated/Driving Under The Influence Law Generally

In order to understand how prosecuting driving under the influence of drug (DUID) cases involving marijuana are different than driving while intoxicated (DWI) cases involving alcohol, it is important to understand DWI/DUID prosecution generally. New Mexico's DWI/DUID statute reads as follows:

> 66-8-102. Driving under the influence of intoxicating liquor or drugs; aggravated driving under the influence of intoxicating liquor or drugs; penalties.
>
> A. It is unlawful for a person who is under the influence of intoxicating liquor to drive a vehicle within this State.
>
> B. It is unlawful for a person who is under the influence of any drug to a degree that renders the person incapable of safely driving a vehicle to drive a vehicle within this State.
>
> C. It is unlawful for:
>
> (1) a person to drive a vehicle in this State if the person has an alcohol concentration of eight one hundredths or more in the person›s blood or breath within three hours of driving the vehicle and the alcohol concentration results from alcohol consumed before or while driving the vehicle[.][12]

This statute sets forth the elements to prove driving while intoxicated (DWI) and driving under the influence of drugs (DUID). In New Mexico, DWI is described in Section A.[13] This section prohibits a person who is under the influence of intoxicating liquor from driving a vehicle. Section B describes DUID as driving a vehicle under the influence of any drug to a degree that renders the person incapable of safely driving a vehicle.[14]

A. Driving While Intoxicated

To prove a DWI, the prosecutor must show that the defendant had an alcohol concentration of eight one hundredths or more in his or her breath or blood within three hours of driving and the alcohol was consumed before or while driving the vehicle. New Mexico law provides for prosecution of DWI prosecution under one of two theories. A prosecutor can prove a DWI using a per se theory or an impaired to the slightest degree theory. Under a per se theory, the State must prove that the

[8] Paul J. Larkin, Jr., *Medical or Recreational Marijuana and Drugged Driving*, 52 Am. Crim. L. Rev. 453, 458 (2015).
[9] Birchfield v. North Dakota, 136 S. Ct. 2160 (2016) (per curiam).
[10] *Id.* at 2186.
[11] *See id.* at 2167, 2186.
[12] N.M. Stat. Ann. § 66-8-102 (2016).
[13] *Id.* at § 66-8-102(A).
[14] *Id.* at § 66-8-102(B).

defendant had a breath score of eight one hundredths or above.[15] Alternatively, a prosecutor can use an impaired to the slightest degree theory. Under this theory, the State must prove that the defendant drove while under the influence of liquor to a degree that rendered the person incapable of safely driving a vehicle either mentally or physically or both.[16]

1. Per Se Driving While Intoxicated

New Mexico's statute defines a person as intoxicated if he or she has an alcohol concentration of eight one hundredths or more in the person's blood or breath within three hours of driving a vehicle and the alcohol concentration results from alcohol consumed before or while driving the vehicle.[17] To prove a per se DWI violation, the State must present evidence that the defendant operated a vehicle within three hours of drinking alcohol with a breath score of eight one hundredths or above.[18] The breath score is typically determined by submitting a breath sample into an Intoxilyzer® 8000.[19] A breath result of eight one hundredths or more is considered a per se violation of the statute.[20]

2. Impaired to the Slightest Degree

Alternatively, the prosecutor may use an impaired to the slightest degree theory. Using this theory, a prosecutor must prove that:

> [A]t the time, the defendant was under the influence, intoxicating liquor, that is, as a result of drinking liquor the defendant was less able to the slightest degree, either mentally or physically, or both, to exercise the clear judgment and steady hand necessary to handle a vehicle with safety to the person and the public.[21]

Using this approach, the State does not have to prove a breath score of eight one hundredths or above.[22] The jury instruction requires that the prosecutor prove that the defendant did not have the clear judgment and steady hand necessary to handle a vehicle with safety because he or she was under the influence of an intoxicating liquor.[23] This is usually accomplished by showing that the defendant's driving was negatively impacted by his or her intoxication. Typically, the prosecutor would show impairment by eliciting testimony by the officer about how badly the defendant was driving. The court uses a totality of the circumstances analysis.[24] Cases that involve the defendant getting into an accident, hitting a curb, almost hitting another car, or running his or her car off the road are the easiest to prove under this theory. The more difficult cases are cases

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15 *Id*. at § 66-8-102(C)(1).

16 UJI 14-4501 NMRA. UJI 14-4501 NMRA applies to an impaired to the slightest degree prosecution:
Driving while under the influence of intoxicating liquor; essential elements. For you to find the defendant guilty of driving while under the influence of intoxicating liquor [as charged in Count _____], the State must prove to your satisfaction beyond a reasonable doubt each of the following elements of the crime:
1. The defendant operated a motor vehicle;
2. At the time, the defendant was under the influence of intoxicating liquor, that is, as a result of drinking liquor the defendant was less able to the slightest degree, either mentally or physically, or both, to exercise the clear judgment and steady hand necessary to handle a vehicle with safety to the person and the public;
3. This happened in New Mexico, on or about the _____ day of _____, _____.

17 N.M. Stat. Ann. § 66-8-102(C)(1).

18 *Id.*

19 Teri Martin, *An evaluation of the Intoxilyzer® 8000C Evidential Breath Alcohol Analyzer*, 44 J. Can. Soc'y of Forensic Sci. 1, 23 (2011).

20 N.M. Stat. Ann. § 66-8-102(C)(1).

21 UJI 14-4501 NMRA.

22 N.M. Stat. Ann. § 66-8-102(C)(1).

23 UJI 14-4501 NMRA.

24 State v. Caudillo, 64 P.3d 495, 497 (N.M. Ct. App. 2002).

where the defendant was stopped for a traffic violation, such as running a stop sign, or cases involving a failure to maintain a traffic lane. The most difficult cases under an impaired to the slightest degree theory are cases where the defendant was stopped in a roadblock because officers did not observe a traffic violation before the defendant was stopped.

3. Driving While Under the Influence of Drugs

The DUID portion of the statute, Section B, requires that the State prove that the defendant drove while under the influence of any drug to a degree that renders the person incapable of safely driving a vehicle.[25] However, the statute is silent as to a per se level the state must prove in a DUID prosecution.[26] While DWI clearly requires that the prosecutor establish that the defendant's alcohol concentration is eight one hundredths or more, the statute does not set forth the level of drug concentration required for a DUID conviction.[27] It appears that the statute allows for any amount of drug concentration as sufficient for a DUID conviction.[28]

4. Aggravated Driving While Intoxicated and Driving While Under the Influence of Drugs

Aggravated DWI/DUID cases require proof of one of the following circumstances: (i) the defendant's breath score was sixteen one hundredths or above, (ii) the defendant was in an accident that caused bodily injury to a human being, or (iii) the defendant refused to take a breath test.[29] Note that this statute can be applied to either DWI or DUID cases.[30] One method of proving an aggravated DWI is by arguing that the defendant's blood or breath score was sixteen one hundredths within three hours of driving.[31] Another method of proving an aggravated DWI/DUID is by proving that the defendant refused to take a breath or blood test.[32] When a subject refuses to submit to a

[25] N.M. Stat. Ann. § 66-8-102(B).

[26] *See id.*

[27] *See id.* § 66-8-102(C).

[28] *See id.* § 66-8-102(D).

[29] Aggravated driving under the influence of intoxicating liquor or drugs consists of:
(1) driving a vehicle in this State with an alcohol concentration of sixteen one hundredths or more in the driver's blood or breath within three hours of driving the vehicle and the alcohol concentration results from alcohol consumed before or while driving the vehicle; (2) causing bodily injury to a human being as a result of the unlawful operation of a motor vehicle while driving under the influence of intoxicating liquor or drugs; or (3) refusing to submit to chemical testing, as provided for in the Implied Consent Act, and in the judgment of the court, based upon evidence of intoxication presented to the court, the driver was under the influence of intoxicating liquor or drugs.

N.M. Stat. Ann. § 66-8-102(D).

[30] *Id.*

[31] For you to find the defendant guilty of aggravated driving while under the influence of intoxicating liquor [as charged in Count _____], the State must prove to your satisfaction beyond a reasonable doubt each of the following elements of the crime:
1. The defendant operated a motor vehicle;
2. Within three hours of driving, the defendant had an alcohol concentration of sixteen one hundredths (.16) grams or more in [one hundred milliliters of blood;] [or] [two hundred ten liters of breath;] [and the alcohol concentration resulted from alcohol consumed before or while driving the vehicle].
3. This happened in New Mexico, on or about the _____ day of _____, _____.
UJI 14-4501 NMRA; N.M. Stat. Ann. § 66-8-102(D)(1).

[32] For you to find the defendant guilty of aggravated driving while under the influence of [intoxicating liquor] [or] [drugs] [as charged in Count _____], the State must prove to your satisfaction beyond a reasonable doubt each of the following elements of the crime:
1. The defendant operated a motor vehicle;
2. At that time the defendant was under the influence of [intoxicating liquor; that is, as a result of drinking liquor the defendant was less able to the slightest degree, either mentally or physically, or both, to exercise the clear judgment and steady hand necessary to handle a vehicle with safety to the person and the public;][or] [drugs to such a degree that the defendant was incapable of safely driving a vehicle;]
3. The defendant refused to submit to chemical testing;
4. This happened in New Mexico, on or about the

breath and/or blood test, according to the statute, he or she can be charged with aggravated DWI/DUID.[33] The statute requires that the administration of the breath or blood test must comply with the requirements of the Implied Consent Act.[34] Because this charge is aggravated, this statute allows for increased penalties if a defendant is charged with this crime.[35] This will become important later when *Birchfield* is used to analyze this statute.

5. Standardized Field Sobriety Tests

An understanding of standardized field sobriety tests (SFSTs) is necessary to understand how officers investigate DWI/DUID cases. After an officer observes a violation of a traffic law and stops a vehicle, if the officer observes that the driver has bloodshot or watery eyes, slurred speech, or a moderate or strong odor of alcohol, the officer may conduct a DWI/DUID investigation.[36] What follows is a summary of the SFSTs that officers use to investigate whether a defendant has alcohol in his or her system.

a. Horizontal gaze nystagmus

Typically, the first SFST that an officer administers is the horizontal gaze nystagmus (HGN). The instructions for the HGN are:

> Are you wearing glasses or contacts?
> I'm going to check your eyes.
> Stand with your feet together, with your hands by your side.
> Follow the stimulus with your eyes, but do not move your head.
> Focus on the stimulus until I tell you to stop.

The officer then holds a stimulus approximately twelve to fifteen inches in front of the suspect's face. The officer checks that the eyes have equal tracking and pupil size. The officer then moves the stimulus from left to right for two seconds out and two seconds back. The officer looks for:

Lack of Smooth Pursuit [of the eyes]
. . .
Distinct Nystagmus [shaking of the eyes]
    @ Maximum Deviation
    Hold minimum of 4 seconds
Onset of Nystagmus
    Prior to 45 Degrees[37]

b. Walk and Turn

The next SFST that officers use in their DWI/DUID investigations is the walk and turn (WAT) test. In the instructional phase of the WAT, the officer instructs the defendant to do the following:

Place your left foot on a line, (real or imaginary) and put your right heel against the toe of the left foot.
Place your arms by your sides.

_____ day of _____, _____.
UJI 14-4508 NMRA (footnotes omitted).

[33] *Id.*

[34] N.M. Stat. Ann. § 66-8-102(D)(3). This is the section of the statute that has been affected by *Birchfield* in that *Birchfield* prohibited imposing increased incarceration time if the defendant refused to submit to a blood draw. It is important to note that *Birchfield* does not apply to refusals to submit to breath tests. *Birchfield* does not prohibit requiring a suspect to submit to a breath test or be subjected to an increased penalty. Birchfield v. North Dakota, 136 S. Ct. 2160, 2169 (2016); UJI 14-4508 NMRA (footnotes omitted).

[35] UJI 14-4508 NMRA (footnotes omitted); *Birchfield*, 136 S. Ct. at 2169.

[36] *See* State v. Candace S., 274 P.3d 774, 781 (N.M. Ct. App. 2011).

[37] *SFST Scoring Sheet*, Tex. Dist. & Cty. Attorneys Ass'n, https://view.officeapps.live.com/op/view.aspx?src=http%3A%2F%2Fwww.tdcaa.com%2Fsites%2Fdefault%2Ffiles%2Fpage%2FDWI%2520SFST%2520SCORING%2520SHEET.doc.

Maintain this position and do not do anything until I tell you to start.
Do you understand?
When I tell you to start, take nine heel-to-toe steps along a line, and nine heel-to-toe steps back down the line.
On the ninth step, keep your front foot on the line & turn by taking several small steps with the other foot.
Keep your arms by your side, count your steps out loud, and keep watching your feet.
Once you begin to walk, do not stop until the test is completed.
Do you understand?

During this test, officers are looking for the following clues:

Can't balance during instructions
Starts too soon
Stops while walking
Misses heel to toe
Steps off the line
Uses arms to balance
Turned improperly
Wrong number of steps
Cannot perform test (test stopped or not requested for suspect's safety)[38]

c. One-leg stand

The final standardized field sobriety test is the one-leg stand (OLS). During the administration of this SFST, the officer instructs the defendant to:

Stand with your feet together.
Keep your arms by your side.
Maintain that position until told to do otherwise.
Do you understand?
When I tell you to start, raise one leg approximately 6 inches off the ground, foot pointed out.
Keep both legs straight, arms at your side
Keep your eyes on the elevated foot.
While holding that position, count out loud (one-thousand-one, one-thousand-two) until told to stop.
This test will take approx. 30 seconds.
Do you understand?

During the suspect's performance of this test, the officer is looking for the following clues:

Sways
Uses arms to balance
Hops
Puts foot down
Cannot perform test (test stopped or not requested for suspect's safety)[39]

6. Drug Recognition Experts

Although SFSTs are commonly used to evaluate alcohol use, determining drug use with SFSTs is problematic because these tests were developed to determine impairment by alcohol, not marijuana. To address the limited use of SFSTs in prosecutions for marijuana, Drug Recognition Experts (DREs) have been used by many jurisdictions to assess impairment when the officer suspects that a driver is under the influence of drugs.[40] These programs provide police officers specialized training in the recognition of drug impairment symptoms in drivers.[41] DREs are also trained to determine the type of drug that is the cause of an individ-

[38] *Id.*

[39] *Id.*

[40] Int'l Ass'n of Chiefs of Police, *Drug Recognition Experts (DREs)*, https://www.theiacp.org/drug-recognition-experts-dres (last visited Nov. 10, 2018).

[41] Nat'l Highway Traffic Safety Admin., A State-by-State Analysis of Laws Dealing with Driving Under the Influence of Drugs 1–3 (2009).

ual's impairment.[42] DREs are specially trained to evaluate and analyze a person's appearance, behavior, and vital signs in order for the DRE to make an informed decision regarding a person's potential drug use.[43]

Unfortunately, training is expensive and time consuming for these officers, so their numbers are limited.[44] This is especially true in smaller jurisdictions who do not have the resources to train DREs.[45] For this reason, prosecution of cases involving DRE trained officers is rare in New Mexico. Prosecutors are generally limited to a positive drug test and impaired driving to prove a DUID.[46] In cases where the suspect did not submit to a blood test, the only proof a prosecutor has to prove DUID is impaired driving.[47]

7. Implied Consent Act

Pursuant to the Implied Consent Act, Section 66-8-105 of the New Mexico Statute, before an officer asks a suspect to submit to a breath test, the officer is required to read the defendant the Implied Consent Act Advisory.[48] The Implied Consent Act Advisories for a breath test read as follows pre-*Birchfield*:

> The New Mexico Implied Consent Act requires you to submit to a breath test, a blood test or both to determine the alcohol or drug content of your blood. After you take our tests, you have the right to choose an additional test . . . .
>
> If you choose to take this additional test, you have the right to a reasonable opportunity to arrange for a physician, a licensed nurse, or laboratory technician or technologist who is employed by a hospital or physician of your own choice to perform an additional chemical test. The cost of the additional test will be paid by the law enforcement agency. Do you agree to take our tests?
>
> [If "Yes," proceed with your tests . . . .]
>
> [If "No," or driver does not respond, read]: I cannot force you to take our tests, but if you refuse you will lose your New Mexico driver's license or resident operator's privilege for one year. If you are convicted in court of Driving While Under the Influence, you may also receive a greater sentence because you refused to be tested. Do you understand?[49]

The Implied Consent Act Advisory informed the defendant that if he or she refuses to take a breath test, then he or she would be

[42] Int'l Ass'n of Chiefs of Police, *What They Do*, https://www.theiacp.org/what-they-do (last visited Nov. 10, 2018).

[43] Zack G. Goldberg, Note, *Potholes: DUI Law in the Budding Marijuana Industry*, 82 Brook. L. Rev. 241, 280 (2016).

[44] Susan Fleming, U.S. Gov't Accountability Off., Drug-Impaired Driving: Additional Support Needed for Public Awareness Initiatives 17 (2015), https://www.gao.gov/assets/670/668622.pdf.

[45] *See* Susan Bryant et al., State of Montana: Impaired Driving Program Assessment 61(2016), https://www.mdt.mt.gov/visionzero/docs/Montana-Impaired-Driving-Assessment-Report.pdf; *see also* David Sandler, *Expert and Opinion Testimony of Law Enforcement Officers Regarding Identification of Drug Impaired Drivers*, 23 U. Haw. L. Rev. 151, 157–58 (2000) (explaining the intensive training police officers must complete to become DREs).

[46] N.M. Stat. Ann. § 66-8-102(B), (D).

[47] *See id*. § 66-8-102(B).

[48] N.M. Jud. Educ. Ctr., New Mexico DWI Benchbook: Criminal Proceedings Involving Driving Under the Influence of Alcohol or Drugs § 3.2 (2010), http://jec.unm.edu/manuals-resources/manuals/2010%20DWI%20Benchbook.pdf/view.

[49] *Id.*

charged with an aggravated DWI/DUID.[50] An aggravated DWI/DUID conviction could result in the defendant losing his or her license for a year and the defendant would face mandatory jail time should he or she be convicted at trial.[51]

8. Breath and Blood Tests

To prosecute a per se DWI or an aggravated DWI/DUID, the prosecutor must prove that the defendant's breath or blood score was above the legal limit.[52] To prove the breath or blood score, the prosecutor must show how much alcohol was in the suspect's blood at the time of the test.[53] The breath score is measured by an Intoxilyzer® 8000.[54] A blood test is measured by drawing blood from the suspect's arm using a needle.[55] Officers have the choice of whether to administer a breath test, a blood test, or both.[56]

It is important to understand that the investigation methods described above all changed after the *Birchfield* decision. What follows is a discussion of the *Birchfield* decision and an analysis of how the decision changed the investigation and prosecution of DUID in New Mexico.

II. *Birchfield*'s Aftermath in DWI/DUID Investigation and Prosecution in New Mexico

Thus far, this article has analyzed how DWI/DUID cases were prosecuted before *Birchfield*. All aspects of DWI/DUID prosecutions changed after *Birchfield.* The next section analyzes how the *Birchfield* decision affected the prosecution of DUID prosecutions and investigations. As discussed above, prior to *Birchfield*, a DWI/DUID investigation began when an officer saw a traffic infraction.[57] An officer developed reasonable suspicion for a DWI/DUID investigation if he approached the vehicle and saw that a suspect had bloodshot watery eyes, slurred speech, an odor of alcohol, admission of alcohol, or a number of other indicators that the suspect may be under the influence of an intoxicating substance.[58] Once the officer developed reasonable suspicion for a DWI/DUID investigation, the officer could conduct standardized field sobriety tests (SFSTs) to develop probable cause to arrest a suspect.[59] If the officer detected signs of impairment in the SFSTs, the officer would then read the suspect the Implied Consent Act Advisory and ask the suspect whether he or she wanted to submit to a breath test.[60] Prior to *Birchfield,* the implied consent law allowed the officer to choose a breath test, a blood test, or both to determine the alcohol or drug content of the defendant's blood.[61] No warrant was necessary to obtain a blood test.[62] The suspect impliedly consented to submit to

[50] *Id.* § 3.3.
[51] *Id.* §§ 3.2, 5.6.
[52] N.M. Stat. Ann. § 66-8-102(D).
[53] *See id.*
[54] *See* Teri L. Martin, *An Evaluation of the Intoxilyzer® 8000C Evidential Breath Alcohol Analyzer*, 44 J. Can. Soc'y Forensic Sci. 22, 22 (2011).
[55] N.M. Code R. § 7.33.2.14(A), (B) (2018).
[56] N.M. Jud. Educ. Ctr., *supra* note 48, § 3.3.
[57] State v. Candelaria, 245 P.3d 69, 72 (N.M. Ct. App. 2010).
[58] Nat'l Highway Traffic Safety Admin., Participant Manual: DWI Detection and Standardized Field Sobriety Testing (SFST) 5, 7 (2018), https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/sfst_full_participant_manual_2018.pdf
[59] *See* State v. Sanchez, 36 P.3d 446, 448 (N.M. Ct. App. 2001) (noting the officer had a reasonable suspicion of a DWI, requested a field sobriety test, and arrested the defendant upon refusal of the field sobriety test pursuant to the Implied Consent Act).
[60] N.M. Stat. Ann. §§ 66-8-105 (1978), 66-8-107 (1978), 66-8-109 (1978).
[61] N.M. Stat. Ann. § 66-8-107(B); In re Suazo, 877 P.2d 1088, 1090 (N.M. 1994).
[62] State v. Garnenez, 344 P.3d 1054, 1058 (N.M. Ct. App. 2014).

a breath or blood test or face additional penalties if he or she was convicted.[63] Most suspects would face aggravated charges leading to an increased penalty if they refused to submit to breath or blood testing.[64]

A. *Birchfield v. North Dakota*

In *Birchfield*, the U.S. Supreme Court reviewed three cases: a breath test refusal, a blood test refusal, and a consensual blood test.[65] After noting that on average, one person in the U.S. dies every fifty-three minutes from a drunk-driving related accident,[66] the Court ruled that the intrusion of a breath test is minimal so increased punishment is acceptable should the suspect refuse a breath test.[67] Regarding blood tests, the Court reasoned that the intrusion of using a needle to draw blood is signification and requires either consent by the suspect or a search warrant.[68] *Birchfield* is significant in that officers are now prevented from drawing blood in a DWI/DUID case if the suspect refuses to consent to having his or her blood drawn.[69] The Court determined that blood testing is different than breath testing in that it is a significant invasion.[70] Blood draws are more emotionally painful and more likely to cause anxiety for the suspect.[71] The Court reasoned that expulsion of breath is natural but inserting a needle in a person's arm is not.[72] Additionally, blood draws result in more privacy concerns since the blood may be passed to many actors in the criminal justice system.[73] For these reasons, the Court reasoned that refusing a breath test may result in an increased penalty but refusal to submit to a blood test cannot.[74] The Court acknowledged that this decision places an additional burden on law enforcement in that officers will have to obtain a warrant to obtain a blood sample if the defendant does not consent to a blood draw.[75] However, the Court reasoned that technology allows officers to obtain warrants quickly.[76]

B. Investigation and Prosecution of Driving While Intoxicated and Driving Under the Influence of Drug Cases in the Wake of *Birchfield v. North Dakota*

The practical application of the *Birchfield* decision has been problematic in New Mexico. New Mexico law does not permit officers to obtain a warrant for a DWI/DUID case if the crime is a misdemeanor.[77] Law enforcement would not be able to obtain a warrant to administer a blood test in the majority of DWI/DUID cases which are charged as misdemeanors.[78] Necessarily, a large number of suspects cannot be tested unless the suspect consents to have his or her blood drawn.[79] Before an officer conducts a breath test or blood test, in most jurisdictions, the officer is required to read an Implied Consent Act Advisory in which the

63 *Suazo*, 877 P.2d at 1089.
64 *Id.*
65 Birchfield v. North Dakota, 136 S. Ct. 2160, 2172 (2016).
66 *Id.* at 2178.
67 *Id.* at 2179.
68 *Id.* at 2184–85.
69 *Id.* at 2186.
70 *Id.* at 2178.
71 *See id.*
72 *Id.*
73 *Id.*
74 *Id.* at 2185.
75 *Id.* at 2180–81.
76 *Id.* at 2192.
77 *See* N.M. Stat. Ann. § 66-8-111(A) (2015) (indicating that a person who committed a felony while under the influence of alcohol or a controlled substance is subject to a chemical test that will be administered only after obtaining a warrant).
78 *See id.*; N.M. Admin. Off. of the Cts., Statistical Report on DWI In New Mexico 1 (2005), https://www2.nmcourts.gov/dwi_reports/2005dwicourtdispositions.pdf (indicating that New Mexico Magistrate courts and the Bernalillo County Metropolitan Court disposed of 13,992 misdemeanor DWI cases in 2005).
79 *See Birchfield*, 136 S. Ct. at 2185.

suspect was informed that he or she can refuse to submit to breath or blood testing, but would face increased penalties if he or she refused.[80] After *Birchfield*, the content of Implied Consent Act Advisory that was read in most cases was no longer valid.[81] Because the Implied Consent Act Advisory that was read to suspects prior to *Birchfield* was no longer valid, the results of blood testing for those could no longer be used as evidence.[82] Proving a DWI/DUID for drug cases without a blood test is very difficult so a significant amount of cases post-*Birchfield* were dismissed at trial because prosecutors faced an uphill battle proving the DWI beyond a reasonable doubt without a blood test.[83]

In effect, when defendants refuse to take a blood test under the new Implied Consent Act Advisory, DWI/DUID cases involving marijuana—or any drug, for that matter—are very difficult to prove. Without a blood test, there is no proof of drugs in the defendant's system for a per se prosecution. Many defendants do not consent to a blood test.[84] An officer's only alternative is to obtain a warrant to conduct a blood test.[85] Unfortunately, New Mexico does not allow for a warrant for a blood draw in a misdemeanor case.[86] Without a blood test, prosecutors are required to prove that the defendant was impaired to the slightest degree to obtain a conviction.[87]

*1. New Mexico Case Law Post-*Birchfield

Three recent New Mexico decisions have interpreted *Birchfield* as it applies to New Mexico DUID prosecution: *State v. Vargas*,[88] *State v. Storey*,[89] and *State v. Gonzales*.[90] *Vargas* and *Storey* echo *Birchfield*'s prohibition of increasing penalties when a subject refuses to submit to a blood test. *Gonzales* opened the door for courts to consider performance on SFSTs in determining whether a suspect is DUID.

a. *State v. Vargas*

In *State v. Vargas,* the court determined that because blood draws used in DUID prosecution were too invasive, the blood test was an unlawful search and the blood score obtained from that unlawful search should be suppressed. In that case, officers stopped the defendant at a checkpoint.[91] The defendant greeted the officer with, "good afternoon" which was odd since it was 1:00 a.m.[92] The officer detected the odor of alcohol coming from the vehicle and the defendant had bloodshot watery eyes.[93] The defendant denied drinking alcohol.[94] The officer administered field sobriety tests (FSTs) and the defendant performed poorly.[95] The of-

80 *See id.* at 2168, 2171.

81 *See* Elena Alicia Esparza & Michael E. Keasler, *Criminal Procedure: Confessions, Searches, and Seizures*, 3 SMU Ann. Tex. Surv. 163, 177 (2017) (noting that consent is not voluntary if it cannot later be revoked).

82 *See id.* at 176–77 (citation omitted) (demonstrating that in Texas cases, mandatory-blood-draw statutes are unconstitutional).

83 *See* State v. Vargas, 389 P.3d 1080, 1082 (N.M. Ct. App. 2016); State v. Storey, 410 P.3d 256, 260 (N.M. Ct. App. 2017).

84 *See* N.M. Dep't of Transp., New Mexico DWI Report 70 (2016), https://gps.unm.edu/gps_assets/tru_data/Crash-Reports/DWI-Reports/2016-dwi-report.pdf (describing the percentage of BAC tests that were refused have increased in seven of the past nine years).

85 Birchfield v. North Dakota, 136 S. Ct. 2160, 2165 (2016).

86 N.M. Stat. Ann. § 66-8-111(A).

87 *See* N.M. Stat. Ann. § 66-8-102(D)(3).

88 *See* 389 P.3d 1080, 1085 (N.M. Ct. App. 2017), *aff'd*, 404 P.3d 416 (N.M. 2017) (explaining the prohibition of increasing penalties when a subject refused to submit to a blood test and the considerations performance has on SFSTs).

89 410 P.3d 256, 268–69 (N.M. Ct. App. 2017).

90 No. S-1-SC-35926, 2017 N.M. Unpub. LEXIS 2, at *1 (N.M. Feb. 28, 2017)

91 *Vargas*, 389 P.3d at 1082.

92 *Id.*

93 *Id.*

94 *Id.*

95 *Id.*

ficer read the defendant the Implied Consent Act Advisory.[96] The defendant then admitted to drinking alcohol and her breath test results were .04/.05.[97]

The officer did not believe the breath result was accurate given the defendant's performance on the FSTs.[98] For this reason, the officer asked the defendant to submit to a blood test.[99] The defendant initially agreed to the blood test, but later refused.[100] The defendant was charged with Aggravated DWI/DUID based on her refusal to take the blood test.[101]

The court reasoned that the correct analysis for this case was the impaired to the slightest degree standard.[102] The court found that the evidence supported the defendant's conviction for driving while impaired to the slightest degree because she was unable to follow instructions during the FSTs.[103] Additionally, the defendant admitted to consuming alcohol and her breath test results were .04/.05.[104]

The court then analyzed whether the defendant could be convicted of aggravated DWI/DUID based on her refusal to submit to a blood test.[105] After discussing the court's reasoning in *Birchfield*, the court reasoned that blood tests are significantly intrusive because they pierce the skin. Also, the court was concerned that a blood sample could be used to extract information beyond just a blood alcohol content reading.[106] After reviewing the U.S. Supreme Court's balancing the need for the government's and the State's interest in preventing the carnage and slaughter caused by drunk drivers, the court reasoned that although it may be argued that a driver has consented to a warrantless blood test pursuant to implied consent laws, a criminal penalty cannot be imposed for refusal to take a blood test.[107] The court held that because the defendant was threatened with an unlawful search, the refusal to submit to the search could not be the basis for increasing her DWI/DUID sentence.[108]

b. *State v. Storey*

The defendant in this case was found guilty at trial of aggravated driving under the influence of marijuana.[109] The court used an impaired to the slightest degree analysis.[110] The court found that a state cannot hold a defendant criminally liable for refusing to submit to a warrantless blood draw.[111] The court ruled that the portion of the statute that allowed for increased punishment for refusing to submit to a blood draw was unconstitutional.[112]

The defendant was stopped because he failed to maintain a traffic lane and almost grazed a concrete lane divider.[113] The officer smelled the odor of burnt marijuana coming from the vehicle and after questioning, the defendant produced a marijuana pipe from the center console of the car.[114] The defendant admitted to smoking marijuana a few hours ear-

96 *Id.*
97 *Id.*
98 *Id.*
99 *Id.*
100 *Id.*
101 *Id.*
102 *Id.* at 1083.
103 *Id.*
104 *Id.* at 1082.
105 *Id.* at 1085.
106 *Id.* at 1085.
107 *Id.* at 1085–86.
108 *Id.* at 1086.
109 State v. Storey, 410 P.3d 256, 259 (N.M. Ct. App. 2017).
110 *Id.* at 260 (quoting *State v. Neal*, 176 P.3d 330, 336 (N.M. Ct. App. 2008)).
111 *Id.* at 267.
112 *Id.* (holding N.M. Stat. Ann. § 66-8-102(D)(3) unconstitutional to the extent it is violated when defendant refuses to consent to a blood test).
113 *Id.* at 260.
114 *Id.* at 261.

lier.[115] The officer administered FSTs and the defendant performed poorly in that he missed heel-to-toe twice, turned incorrectly, and used his arms for balance.[116] During the one-leg stand test, the defendant hopped once, failed to look at his foot, and failed to keep his hands to his sides.[117] Because the defendant performed poorly on his FSTs, the officer placed the defendant under arrest for DWI/DUID.[118]

The issue before the court was whether standardized FSTs help a law enforcement officer to assess a driver's ability to safely operate a motor vehicle.[119] The State argued that because FSTs are divided attention tests, FSTs can be used to assess a person's intoxication regardless of the intoxicating substance.[120] The officer testifying in this case had received specialized training as a DRE.[121] The officer then read the defendant the Implied Consent Act Advisory, which required the defendant to consent to a breath test, blood test, or both, and also stated that the defendant then had the option to request another independent test to be performed. The defendant agreed to submit to a breath test, which showed negative for alcohol.[122] After the defendant took the breath test, the officer then informed the defendant that he could face a greater sentence if he refused the blood test.[123] The officer then asked the defendant to submit to a blood test and even after he was advised of the greater sentence, the defendant again refused to submit to a blood test.[124] The defendant's case was tried in the lower court before the *Birchfield* decision. After reasoning that drawing blood for alcohol content analysis constitutes a search,[125] the court ruled that blood tests are different from breath test because of its intrusiveness and use of blood to extract information beyond blood alcohol content.[126] The court held that the constitution does not only prohibit an enhanced criminal penalty based on refusal to consent to a blood test for alcohol but it also prohibits an enhanced sentence for refusal to consent to a blood test for other drugs including marijuana.[127] However, the State would still be allowed to comment on the defendant's refusal to consent to a blood test.[128]

c. *State v. Gonzales*

The defendant was charged with speeding at 95 mph in a 60 mph zone and failing to maintain a traffic lane.[129] The officer observed that she had bloodshot and watery eyes and detected an odor of marijuana.[130] When asked, the defendant stated that she along with her passengers had smoked earlier.[131] The officer administered SFSTs, the HGN, the WAT and the OLS.[132] The officer testified that the WAT and OLS SFSTs are divided attention tests that are used to determine whether a person can safely operate a vehicle.[133] During the WAT, the defendant stepped out of the starting position twice and stepped off line twice.[134] During

115 *Id.*
116 *Id.*
117 *Id.*
118 *Id.*
119 *Id.* at 270.
120 *Id.* at 261.
121 *Id.*
122 *Id.*
123 *Id.*
124 *Id.*

125 *Id.* at 265 (citing *Birchfield v. North Dakota*, 136 S. Ct. 2160, 2178 (2016)); *see* State v. Richerson, 535 P.2d 644, 648 (N.M. Ct. App. 1975).
126 *Storey*, 410 P.3d at 265 (citing *Birchfield*, 136 S. Ct. at 2178).
127 *Id.* at 267.
128 *Id.* at 269.
129 State v. Gonzales, No. S-1-SC-35926, 2017 N.M. Unpub. LEXIS 2, at *1 (N.M. Feb. 28, 2017).
130 *Id.*
131 *Id.*
132 *See* discussion *supra* Section I.A.5.
133 *Gonzales*, 2017 N.M. Unpub. LEXIS 2, at *2.
134 *Id.*

the OLS, the defendant swayed and dropped her foot and her legs were shaking.[135] The officer testified that body tremors are associated with marijuana use based on his training as a DRE.[136] After objection, the court ruled that the court would give appropriate weight to the statement that it deserved since the State had not laid the foundation for the officer to give expert testimony.[137] On appeal, the State conceded that that the trial court's decision to admit the officer's opinion that marijuana caused tremors was erroneous, but stated that the error was harmless.[138] The only issue before the court was whether the evidence presented was sufficient to support a conviction.[139] The court reasoned that given the defendant's admission of smoking marijuana and the fact that the defendant was speeding, there was sufficient evidence to support the verdict that defendant was incapable of safe driving.[140] The court also noted that DRE evidence is helpful to a fact finder but is not needed in every case.[141] Ultimately the court held that despite the erroneous admission of the officer's testimony that marijuana causes tremors, there was sufficient evidence for the lower court to convict the defendant.[142]

III. Other Issues With Marijuana Blood Draw Prosecution

When suspects do consent to a blood draw, prosecutors are faced with an additional burden in New Mexico. The statute prohibiting DWI/DUID in New Mexico is not clear about what is required to prove a DWI/DUID regarding a drug.

Generally, marijuana impairment can be difficult to prove. For example, alcohol dissipates quickly while marijuana does not. A suspect may have marijuana in his or her system, but since the marijuana does not dissipate quickly, the marijuana may have been smoked days or even weeks prior to driving.[143] The fat-soluble nature of the chemical THC enables it to be stored in human fat tissue for a variable period of time while gradually being released back into the bloodstream anywhere from a day for an occasional user, to several weeks for a chronic user.[144] The speed with which THC is released back into the blood stream is highly variable across individuals. It generally occurs almost completely within twenty-four hours after smoking, but it may not end for several weeks.[145] When marijuana is smoked, the THC is absorbed into the bloodstream through the lungs.[146] It is then circulated through the body and is stored in fat tissue and is released over time.[147] The rate for the release of the marijuana from the fat cells can be anywhere from twenty-four hours to several weeks after smoking.[148] Individuals may respond differently to the same drug dose depending on genetics, drug metabolism, age, weight, sex, disease, and history of use.[149] Additionally, use of other substanc-

[135] *Id.*
[136] *Id.* at *2–3.
[137] *Id.* at *3.
[138] *Id.*
[139] *Id.*
[140] *Id.*
[141] *Id.* at *10; *see also* State v. Aleman, 194 P.3d 110, 120–21 (N.M. Ct. App. 2008).
[142] Gonzales, 2017 N.M. Unpub. LEXIS 2, at *10.
[143] Charles R. Cordova, Jr., *DWI and Drugs: A Look at Per Se Laws for Marijuana*, 7 Nev. L.J. 570, 592 (2007).
[144] *See How long does cannabis stay in the body after smoking?*, NHS Choices, https://perma.cc/8H 83-8J7R (last visited Nov. 7, 2018)
[145] Cordova, *supra* note 143, at 578 (citations omitted).
[146] *Id.* (citing Marilyn A. Huestis & Edward J. Cone, *Urinary Excretion Half-Life of 11-nor-9-carboxy-Δ9-tetrahydrocannabinol in Humans*, 20 Therapeutic Drug Monitoring 570 (1998)).
[147] *Id.* at 570.
[148] *Id.* at 578.
[149] *See generally* Marilyn A. Huestis & Edward J. Cone, *Differentiating New Marijuana Use From Residual Drug*

es at the same time as marijuana use can cause different reactions on a person's behavior or driving abilities.[150] The highly variable nature of marijuana makes it difficult to test when a person last used marijuana and the degree to which that person may or may not be currently impaired.[151] Because marijuana stays in the system at different levels based on individual tolerance, it is difficult—if not impossible—to determine if someone is impaired by marijuana through blood testing.[152] The research also shows, however, that frequent marijuana users develop a tolerance that minimizes impairment at a given THC dosage, as compared to infrequent users given the same THC dosage.[153] Additionally, there is no biological test for tolerance.[154] Suspects who use medical marijuana are most susceptible to DUID prosecution despite the fact that they are most tolerant to marijuana's effects.[155] These issues make legal marijuana patients and chronic recreational users especially susceptible to DUID prosecution, even though their tolerance minimizes impairment.[156] Regular users would likely always be driving with at least some level of THC metabolites in his or her blood system, even during a prolonged period of abstinence.[157] Chronic users will always test positive.[158] Given the differences between alcohol and marijuana testing, proving that the defendant was intoxicated at the time of driving is very difficult.

A review of New Mexico's DUID statute shows that there is no per se amount required to prove intoxication for purposes of the statute.[159] The statute simply uses an impaired to the slightest degree assessment to determine impairment.[160] In a DWI/DUID involving marijuana in New Mexico, a prosecutor must prove that the suspect had drugs in his or her system and that caused him or her to be impaired to the slightest degree.[161] The previous section discussed the use of Standardized Field Sobriety Tests (SFSTs) to prove impairment.[162] The per se approach presents several problems for prosecutors. SFSTs were created to test for alcohol use and not marijuana use so their relevance is limited. Additionally, what if a defendant refuses a blood test? How does a prosecutor prove that the defendant had any drugs in his or her system? Even in cases where the defendant had marijuana or paraphernalia in his or her vehicle, there is no way to establish when and whether the suspect ingested any of the drug.

IV. Recommendations For The Future Of DUID Enforcement

To address the increased numbers of marijuana users and of DUID cases, law en-

Excretion in Occasional Marijuana Users, 22 J. Analytical Toxicology 445 (1998) (analyzing drug testing programs).

150 *See generally* R. Andrew Sewell et al., *The Effect of Cannabis Compared with Alcohol on Driving*, 18 Am. J. Addictions 185 (2009) (comparing the differing effects of marijuana use and alcohol use).

151 *See* Mark J. Neavyn et al., *Medical Marijuana and Driving:A Review*, 10 J. Med. Toxicology 269, 270 (2014).

152 Goldberg, *supra* note 43, at 253 (citing Sewell, *supra* note 150, at 188).

153 *Id.* at 251 (citation omitted).

154 *See id.* at 278–79.

155 *See id.* at 249–50.

156 Equal protection issues have arisen because of issues with minimized impairment. *See* Cordova, *supra* note 143, at 591–92.

157 Goldberg, *supra* note 43, at 243.

158 *Id.*

159 *See* N.M. Stat. Ann. § 66-8-102(D)(1)–(3).

160 New Mexico v. Gurule, 252 P.3d 823, 826 (N.M. Ct. App. 2011); *see* N.M. Stat. Ann. § 66-8-102(D)(1).

161 *See* New Mexico v. Storey, 410 P.3d 256, 272 (N.M. Ct. App. 2017).

162 *See* discussion *supra* Section I.A.5; *see generally* Nat'l Highway Traffic Safety Admin., Participant Manual: DWI Detection and Standardized Field Sobriety Testing (SFST) (2018), https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/sfst_full_participant_manual_2018.pdf (demonstrating officer training course materials on DWI detection).

forcement must explore other options to determine whether a suspect is driving under the influence of marijuana. Given the prohibition of blood draws in *Birchfield,* the method used must be non-invasive. This method should also be portable and easy to operate.[163] Officers must be able to use the device roadside to determine marijuana use.[164] At this time, this device does not exist and there is not one available. Given the increase in the numbers of marijuana users, the problem of marijuana DUID enforcement will only get worse.[165]

One of the difficulties in prosecuting DWI/DUID is the invasive nature of blood draws as determined by the U.S. Supreme Court in *Birchfield*. Newer tests are available that are not as invasive as the blood draw that was limited by the Supreme Court. Oral Fluid (OF) testing involves swabbing the inside of a suspect's mouth. OF testing has been used in workplace drug testing,[166] establishing evidence in non-DUID criminal cases, and monitoring medication for pain management.[167] It is minimally invasive, and results are obtained rapidly. Nine European countries, Australia, and New Zealand permit OF testing. Another option is hair testing. Hair testing also has the problem of recency of the marijuana use. A positive result could be from three to four weeks prior and have no relationship to ability to drive.[168] Although these methods may address the invasiveness issue that the Court expressed in *Birchfield*, it still does not address the concern the Court had about the information that could be obtained from the samples collected for other law enforcement uses.

V. Conclusion

The perfect storm of increasing numbers of suspects driving under the influence of drugs, and the *Birchfield* decision prohibiting blood draws to determine blood alcohol content without consent, has caused much difficulty in the investigation and prosecution of driving while under the influence cases. Many jurisdictions have enacted statutes allowing for decreased penalties or allowing for medicinal or recreational use. Necessarily, law enforcement agencies are struggling with increased enforcement of driving under the influence of drug cases. Adding to their increasing caseload, officers and prosecutors are limited in their ability to prove their cases unless the suspect consents to a blood draw. As a result of *Birchfield*, officers have revised the Implied Consent Act Advisory to reflect the holding in *Birchfield* preventing prosecutors from pursuing aggravated charges that may result in increased incarceration if a defendant refuses to submit to a blood test. Although the U.S. Supreme Court in *Birchfield* reasoned that because of technology, officers may easily and quickly obtain warrants for blood draws, officers in New Mexico are not able to obtain a warrant for misdemeanor cas-

[163] *See* John Flannigan et al., *Oral Fluid Testing for Impaired Driving Enforcement*, Police Chief, Jan. 2017, at 58, 58 (discussing the prevalence of DUID and the need for testing).

[164] *See id.* (noting that oral fluid detection is a viable option for roadside testing of drivers because there is a high degree of agreement when simultaneously collected blood and oral fluid samples are tested for drugs).

[165] Cordova, *supra* note 143, at 570–71.

[166] Mark Chu et al., *The Incidence of Drugs of Impairment in Oral Fluid from Random Roadside Testing*, 215 Forensic Sci. Int'l 28, 28 (2012); Nathalie A. Desrosiers et al., *Cannabinoids in oral fluid by on-site immunoassay and by GC-MS using two different oral fluid collection devices*, 406 Analytical & Bioanalytical Chemistry, 4117, 4118 (2014).

[167] Elisabeth Leere Øiestad et al., *Oral fluid drug analysis in the age of new psychoactive substances*, 8 Bioanalysis 691, 691 (2016).

[168] Cordova, *supra* note 143, at 580 (quoting *Makes various changes concerning controlled substances and impaired operation of vehicles and vessels: Hearing on S.B. 481 Before Assemb. Comm. on Judiciary*, 1999 Leg., 70th Sess. 12 (Nev. 1999)).

es, which are the majority of DUID cases. Prosecutors must seek other less invasive options to determine whether a suspect is DUID. All of these barriers to enforcement of DUID have created the perfect storm for prosecutors and law enforcement.

About the AUTHOR

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"The Way I Felt": Creating a Model Statute to Address Sexual Offenses Which Utilize Virtual Reality

Ryan Esparza[1]

Table of Contents

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Introduction

The legal system has struggled to keep up with the advancement of the internet. Anonymity can make the internet a toxic place at times; in 2017 Pew Research found that four-in-ten adults have experienced harassment online.[2] Online movements have formed where the sole purpose is to harass women in the online arena and those who are vocal against online harassment.[3] Online interactions can be marred by racism, sexism, threats, and other offensive action on the part of users against other users.[4] However, there is still a layer of separation between the online world and the real world. With the introduction of Virtual Reality (VR) headsets, like the Oculus Rift, PlayStation VR, and HTC Vive, this layer of separation begins to degrade. If this layer of separation starts to become unclear as the VR technology evolves, then the toxic interactions that occur online could become more personal. To the degree that these virtual experiences are distinct from those occurring in the real world, then these experiences become more personal and less distinguishable from a virtual experience.

Comb through the internet and you are bound to come across videos of people falling out of seats or tripping over themselves while utilizing VR headsets. Current VR technology arguably surpasses any technology currently available in terms of the level of interactivity they provide. The likely reason individuals are experiencing the reactions is that this interaction provides an experience that in the moment is hard to distinguish from physical world experiences. Difficulty in the ability to distinguish virtual and physical world experiences could lead the way for a new legal arena to develop. If harassing behavior becomes indistinguishable in both virtual and physical-world spaces, then the law has an obligation to adapt.

This Article argues that a legal standard must be developed in order to address sexual offenses in the emerging technological landscape of VR due to the increasing difficulty in distinguishing virtual and physical-world experiences. This Article proceeds in five parts. Part I details one of the first known recorded instances of a sexual offense occurring in VR and conducts an overview of current sexual offenses laws in New York, California, and Texas. Part II examines whether free speech is a valid defense to a possible criminal prosecution involving sexual offenses in the VR medium. Part III examines whether virtual sexual offenses trigger criminal liability in the physical world. Part IV addresses issues of online anonymity as a barrier to criminal liability and suggest methods of circumventing these issues. Finally, Part V details a model rule upon which states could readily adapt to address sexual offenses occurring in the virtual space.

I. Background

a. The First Recorded Instance of a Sexual Offense in VR?

Jordan Belamire was visiting her brother-in-law when she decided to utilize his new VR headset, the HTC Vive.[5] Belamire, along with her husband and brother-in-law, each took

[2] Maeve Duggan, *Online Harassment 2017*, Pew Res. Ctr. (July 11, 2017), http://www.pewinternet.org/2017/07/11/online-harassment-2017/.

[3] *See* Jay Hathaway, *What Is Gamergate, and Why? An Explainer for Non-Geeks*, Gawker (Oct. 10, 2014), http://gawker.com/what-is-gamergate-and-why-an-explainer-for-non-geeks-1642909080.

[4] *See id.*

[5] Jordan Belamire, *My First Virtual Reality Groping*, Medium: Athena Talks (Oct. 20, 2016), https://medium.com/athena-talks/my-first-virtual-reality-sexual-assault-2330410b62ee.

turns playing a VR game by the name of QuiVr.[6] Upon entering the virtual world of QuiVr, Belamire admitted she had "never . . . experienced virtual reality that felt so real."[7] Everything was beyond Belamire's expectations and she was experiencing VR in a manner unprecedented to her before.[8] There were drops equal to about one hundred feet in the game, so convincing that at the moment they even gave Belamire a sense of fear.[9] After Belamire had fully experienced the game's single-player mode, she decided to try QuiVr's online multiplayer:

> [O]ther players could hear me when I spoke, my voice the only indication of my femaleness. Otherwise, my avatar looked identical to them. In between a wave of zombies and demons to shoot down, I was hanging out next to BigBro442, waiting for our next attack. Suddenly, BigBro442's disembodied helmet faced me dead-on. His floating hand approached my body, and he started to virtually rub my chest.[10]

Belamire immediately shouted for the other player to stop, but this only caused the player to chase her around while continuing to grab at her avatars chest and shoving his hand towards her avatar's virtual crotch and making rubbing motions.[11] "The virtual groping [felt] just as real. Of course, you're not physically being touched, just like you're not actually one hundred feet off the ground, but it's still scary as hell."[12] For Belamire, the high she had experienced while playing the game had disappeared, replaced with a sense of powerlessness.[13] "I've been groped in real life, once in a Starbucks in broad daylight. I know what it's like to happen in person. The shock and disgust I felt [in QuiVr] was not too far off from that."[14]

Belamire's reactions to the virtual world in QuiVr are not uncommon. People who have experienced VR may have difficulty distinguishing experiences in the virtual and physical world.[15] This could be due to VR being the closest the virtual world and the physical world have intersected with each other, which is why someone looking down at a virtual one-hundred-foot drop can experience apprehension. This blurring intersection might be why someone climbing a virtual mountain in VR might feel the sensation of falling when they miss a step.[16] It might be why Belamire associated the same emotions of previous unconsensual sexual contact with what she experienced while playing QuiVr.

b. Defining Sexual Offenses by States

Categorizing sexual offenses in a uniform manner can be a difficult task because they vary from state-to-state. Some states are more encompassing with their protections while others treat what are categorized as sexual offenses in other states as non-sexual offenses.[17] New York, California, and Texas are suffi-

6 *Id.*
7 *Id.*
8 *Id.*
9 *Id.*
10 *Id.*
11 Julia Carrie Wong, *Sexual harassment in virtual reality feels all too real – 'it's creepy beyond creepy*,' The Guardian (Oct. 26, 2016), https://www.theguardian.com/technology/2016/oct/26/virtual-reality-sexual-harassment-online-groping-quivr.
12 *Id.*
13 *Id.*
14 Sara Ashley O'Brien, *She's been sexually assaulted 3 times—once in virtual reality*, CNN (Oct. 26, 2016), http://money.cnn.com/2016/10/24/technology/virtual-reality-sexual-assault/index.html.
15 *See* Hall 90210, *Oculus miffed: when VR is so immersive you fall flat on your face*, The Guardian (Nov. 30, 2016), https://www.theguardian.com/technology/2016/nov/30/oculus-vr-immersive-fall-face-plant-virtual-reality.
16 *Id.*
17 *Compare* N.Y. Penal Law (classifying groping as a sexual offense), *with* Tex. Penal Code Ann. (classifying

ciently representative of sexual offense laws across the United States due to their ability to deviate but also converge on the requirement of various elements. The three states selected are also diverse enough from each other, based on a number of factors, and are more likely to provide an overview of how state legislatures have categorized various sexual offenses. Further, it is beneficial to examine how these states treat sexual offenses because, while existing laws in these states may not properly apply to sexual offenses in the virtual world, existing laws may be modified in order to address the type of sexual offense occurring in VR.

i. New York

In New York, the Penal Code defines sex offenses as a sexual act committed without the consent of the victim.[18] The New York Code states that lack of consent may result from (i) forcible compulsion, (ii) incapacity to consent, (iii) where the offense charged is sexual abuse or forcible touching, (iv) "any circumstances, in addition to forcible compulsion or incapacity to consent, in which the victim does not expressly or impliedly acquiesce in the actor's conduct," or (v) where the charge is rape in the third degree.[19] The charges of rape and criminal sexual act are the most serious sexual offenses according to the New York Penal Code.[20] However, they would likely be the most difficult to apply to a virtual sexual offense due largely to the requirement of sexual intercourse for rape, and the requirement of oral sexual conduct or anal sexual conduct for Criminal Sexual Act charges.[21]

The New York Penal Code contains a sexual offense called forcible touching.[22] It is the most applicable offense within the New York Penal Code related to a possible virtual sexual offense. There are two circumstances in which an actor may be guilty of this offense. First, an actor commits forcible touching when such person "intentionally, and for no legitimate purpose" forcibly touches, squeezes, grabs, or pinches the intimate parts of another.[23] The purpose of touching is to degrade, or abuse said victim or in order to satisfy the actor's own sexual desire.[24]

Second, an actor commits forcible touching when such person subjects another to sexual contact for the purpose of satisfying the actor's sexual desire and with the intent to "abuse or degrade such other person while such person is a passenger on a bus, train, or subway car operated by any transit agency, authority or company, public or private, whose operation is authorized by New York state or any of its political subdivisions."[25] In New York, forcible touching is a Class A misdemeanor which may carry a sentence of up to a year in prison.[26]

ii. California

The California Penal Code, unlike the New York Penal Code, separates sexual offenses across its code.[27] For example, rape is categorized under "Crimes Against the Person Involving Sexual Assault, and Crimes Against Public Decency and Good Morals," while sexual battery is categorized under the chapter on Assault and Battery of "Crimes Against the

groping not as a sexual offense).

18 N.Y. Penal Law § 130.05(1) (McKinney 2018).

19 *Id.* § 130.05(2)(a)-(d).

20 *See* § 130.25; *see also* § 130.30; § 130.35; § 130.40; § 130.45; § 130.50.

21 *Id.*

22 § 130.52.

23 *Id.*

24 *Id.*

25 *Id.*

26 *See* § 70.15; *see also* § 130.52.

27 *See generally* Cal. Penal Code tit. 8-9 (West 2018).

Person."[28] Like New York, rape would likely be difficult to apply to virtual sexual offenses due to the requirement of sexual intercourse being a core element to the crime.[29] However, under the California Penal Code sexual battery may be more easily modified to address virtual sexual offenses.

Under the California Penal Code, sexual battery consists of five subdivisions. The first subdivision states that an actor is guilty of sexual battery if the actor touches an intimate part of another unlawfully restrained by the actor or their accomplice, and "if the touching is against the person's will and is for the purpose of sexual arousal, sexual gratification, or sexual abuse."[30] The second subdivision maintains the same language but limits it to victims who are "institutionalized for medical treatment and who [are] seriously disabled or medically incapacitated."[31] The third subdivision maintains the language of the first subdivision, but is limited to victims who are unaware of the nature of the act because the actor committing the offense has fraudulently represented the purpose of the touching to be professional.[32]

The fourth subdivision states that any actor who "for the purpose of sexual arousal, sexual gratification, or sexual abuse," causes another to masturbate or touch an intimate part of "either of those persons or a third person" against that person's will, is guilty of sexual battery.[33] The fifth and final subdivision states that any actor who touches an intimate part of another person, against that person's will, "for the specific purpose of sexual arousal, sexual gratification, or sexual abuse is guilty of . . . sexual battery."[34] The fifth subdivision of sexual battery is likely the most applicable to virtual sexual offenses but would require some modification to fully satisfy an offense in the virtual arena.

iii. Texas

The Texas Penal Code runs into the same issues listed previously for the other two states. Attempting to utilize the elements of sexual assault or rape for virtual sexual offenses is difficult due to the requirement of penetration.[35] However, where New York and California had laws addressing groping, which could be readily adapted or modified to address virtual sexual offenses, Texas has no such law. Under Texas law, groping is not considered to be a sexual offense.[36] Instead, groping in Texas is punishable as an assault offense, but the statute provides very little repercussions for a violation.[37] Section 22.01(a)(3) is the only language within the penal code that could be interpreted to include groping; it states "a person commits the offense of assault if the person . . . intentionally or knowingly causes physical contact with another when the person knows or should reasonably believe that the other will regard the contact as offensive or provocative."[38] The maximum punishment a Class C misdemeanor carries in Texas is a $500 fine.[39]

Texas takes a very different approach from other states because it does not address groping as a sexual offense like New York and California do. However, the language the Texas

[28] *Id.*
[29] § 261.
[30] § 243.4.
[31] *Id.*
[32] *Id.*
[33] *Id.*
[34] *Id.*
[35] *See* Tex. Penal Code Ann. § 22.011 (West 2018).
[36] *See* Briana Whitney, *Groping, Touching not Considered Sexual Assault in Texas*, KUTV (Nov. 13, 2017), http://www.kiiitv.com/article/news/local/groping-touching-not-considered-sexual-assault-in-texas/491544773.
[37] Tex. Penal Code Ann. § 22.01.
[38] *Id.*
[39] *See* Whitney, *supra* note 36.

Penal Code uses for assault could be modified to address virtual sexual offenses. The overarching issue among all the states is the requirement of physical contact. Thus, a model standard would need to find a way to incorporate the non-physical in order to find success.

II. Does Free Speech Protect These Actions from Criminal Prosecution?

One possible argument which may be put forth by actors who engage in virtual sexual offenses is that their actions in the virtual world are merely an extension of speech. However, this argument is unlikely to succeed due to the advancement of criminal cyberstalking laws. In *United States v. Moreland*,[40] the plaintiff brought a First Amendment challenge to a cyberstalking statute, 18 U.S.C. § 2261(A)(2)(B). Moreland argued that the statute's prohibition of electronic communications caused substantial emotional distress and the statute could be utilized to prohibit protected speech such as heckling or "critical commentary that may be considered distressing to a particularly sensitive comedian, abortion provider, or politician."[41] The court disagreed with Moreland's argument, holding that threats of violence can violate the statute without actual intent of carrying out the violence.[42]

The same issue was addressed by the First Circuit Court of Appeals in *United States v. Sayer*.[43] Sayer was convicted under a cyberstalking statute and brought a challenge against the conviction based on the First Amendment.[44] Sayer argued that the cyberstalking statute was unconstitutional because it violated protected speech.[45] Sayer posted pictures of his former girlfriend, "Jane Doe," in lingerie in the casual encounter section of Craigslist after she broke up with him.[46] The advertisement on Craigslist listed the ex-girlfriend's home address and described a number of sexual acts she was willing to perform.[47] This resulted in a number of men arriving at the ex-girlfriend's home asking for sex.[48]

Sayer then posted, on a number of pornography sites, videos of consensual sexual encounters between the two.[49] "Several of the websites included Jane Doe's name and then-current Louisiana address. One site encouraged viewers to write to Jane Doe and tell her what they thought of the videos."[50] The court rejected Sayer's First Amendment challenge, holding that all of Sayer's alleged communication and activity online were "integral to criminal conduct," and the purpose of such conduct was to injure, harass, or cause substantial emotional distress making it unprotected free speech.[51]

Moreland and *Sayer* demonstrate the court system's recognition that forms of harassing speech, such as the speech utilized by the defendants in these two cases, can fall outside of First Amendment protection. This is a concept that the Supreme Court has reiterated.[52] The Supreme Court acknowledges that mere emotionally distressing or outrageous speech

40 207 F. Supp. 3d 1222, 1226 (N.D. Okla. 2016).
41 *Id.* at 1227.
42 *Id.* at 1229.
43 748 F.3d 425, 427 (1st Cir. 2014).
44 *Id.*
45 *Id.*
46 *Id.* at 428.
47 *Id.*
48 *Id.*
49 *Id.*
50 *Id.*
51 *Id.*
52 *See* Giboney v. Empire Storage & Ice Co., 336 U.S. 490, 498 (1949); United States v. Watts, 394 U.S. 705, 707-08 (1969).

is protected by the First Amendment.[53] However, the Supreme Court has held that speech containing "true threats" is unprotected by the First Amendment.[54] The Supreme Court has not defined what a "true threat" is and have instead left the interpretation to be defined by lower courts.[55]

Some lower courts have defined "true threat" to mean a reasonable person would interpret the statement as constituting a serious expression.[56] Other courts interpret "true threat" as:

> (1) the reaction of the recipient of the speech; (2) "whether the threat was conditional"; (3) whether the speaker communicated the speech directly to the recipient; (4) whether the speaker "had made similar statements" in the past; and (5) whether the recipient "had reason to believe" the speaker could engage in violence.[57]

Whether virtual sexual offenses fall within this "true threat" category may be irrelevant, because virtual sexual offenses may qualify as conduct as opposed to speech.[58] Federal cyber harassment statutes do not prohibit protected speech; instead, it is conduct which they seek to prohibit; specifically, an intended and continuous course of conduct that causes substantial emotional distress.[59] Virtual sexual offenses are likely to fall into this category because the offender's conduct appears deliberate, as was apparent in Belamire's experience in VR, and it is that conduct that is meant to cause substantial emotional distress.[60]

The only potential concern is the requirement within cyber harassment laws that the conduct be continuous. Nevertheless, the continuous element could be addressed in a law crafted for virtual sexual offenses. Given the legal precedent the Supreme Court and lower courts have followed, any free speech argument against a potential virtual sexual offense law would be highly unlikely to succeed.

III. Do Virtual Sexual Offenses Trigger Criminal Liability?

The single most important obstacle in the way of currently pursuing criminal charges against an offender of virtual sexual offenses is assessing whether criminal liability is triggered. Forty states have adopted laws punishing the unlawful distribution of intimate images, also known as revenge porn laws.[61] Combating revenge porn was, and still is for states like New York that have no revenge porn law codified, a process where victims were required to find their own means of protecting themselves. One of these methods was to use copyright law.[62] First, the victim needs to register the copyright but that involves giving the Copyright Office a copy of what you will be registering.[63] This means that sending the intimate pictures to the office is a requirement.[64] Second, after the vic-

[53] Nancy Leong & Joanne Morando, *Communication in Cyberspace*, 94 N.C.L. Rev. 105, 131 (2015) (citing *Snyder v. Phelps*, 562 U.S. 443, 456 (2011)) (holding speech involving a public issue, even when causing emotional distress, was protected by the First Amendment).
[54] *Id*. (citing *Watts*, 349 U.S. at 707-08 (1969)).
[55] *Id*. at 131-32.
[56] *Id*. at 131.
[57] *Id.* at 132 n.129 (quoting *Jones v. State*, 347 Ark. 409, 420 (2002)).
[58] *Id.*
[59] *Id.* at 134-35.
[60] *Id.* at 135.
[61] *40 States and DC Have Revenge Porn Laws*, Cyber Civil Rights Initiative, https://www.cybercivilrights.org/revenge-porn-laws/.
[62] Erica Fink, *To fight revenge porn, I had to copyright my breasts*, CNN Business (Apr. 27, 2015) http://money.cnn.com/2015/04/26/technology/copyright-boobs-revenge-porn/index.html.
[63] *Id.*
[64] *Id.*

tim gains registration over their now-copyrighted intimate images, they can issue a takedown notice via the Digital Millennium Copyright Act (DMCA).[65] This method of addressing the issue of revenge porn was less than desirable, but for those states with no law addressing revenge porn, copyright remains one of the few means of combating revenge porn for victims.[66]

However, more states are readily adopting laws against revenge porn. Revenge porn laws remain an excellent illustration of how the legislative process has adapted to the evolution of technology and the potential misuse associated with such technological advances. Most notably is the use of the online sphere to commit questionable moral and legal acts. This is further displayed in the adoption of cyber harassment laws within the United States. Both the federal government and most states have currently adopted some form of cyber harassment laws.[67] Cyber harassment laws and revenge porn laws are two examples where a gap in the law caused by the advancement of technology, notably the internet, has been addressed by the legislative body. However, when it comes to offenses that take place in the virtual world it may be difficult to apply criminal liability.[68]

Revenge porn laws link back to the non-consensual distribution of intimate images which have a direct effect on the non-virtual world that is readily traceable to an intent to harass the victim through public degradation, blackmail, social isolation, or professional humiliation.[69] This is similar to cyber harassment laws, where there is still a distinct link back to the non-virtual world. This link to the non-virtual world may involve the conduct associated with the offense and its direct correlation to harm that the victim suffers via the virtual or online medium. With revenge porn and cyber harassment laws, the offender uses the internet or virtual medium as a means of causing harm to the victim in a quantifiable way.[70]

With virtual offenses, notably virtual sexual offenses, it may be harder to quantify the detrimental harm the victims suffer. A clear hypothetical is homicide. In VR, the murder of a virtual avatar is unlikely to result in death other than the avatar.[71] "Even if actual death does ensue when an avatar dies, or if a user suffers a fatal coronary in response to the actions of another user, the evaluation of whether the incident is criminal homicide does not change just because it involves virtual acts."[72] If the person who causes the death meets the mens rea requirement to commit murder, then it could be possible to pursue such an act.[73] Mens rea is not necessarily a concept that can be limited to the non-virtual world.[74]

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65 Amanda Levendowski, *Using Copyright to Combat Revenge Porn*, 3 N.Y.U.J. Intell. Prop. & Ent. L. 433, 442-43 (2014).

66 *Id.* at 443.

67 A. Meena Seralathan, *Making the Time Fit the Crime: Clearly Defining Online Harassment Crimes and Providing Incentives for Investigating Online Threats in the Digital Age*, 42 Brook. J. of Int'l L. 425, 440 (2016).

68 Jaclyn Seelagy, *Virtual Violence*, 64 UCLA L. Rev. Discourse 412, 417 (2016).

69 Charlotte Alter, *'It's Like Having an Incurable Disease': Inside the Fight Against Revenge Porn* (2017), Time Inc. (June 13, 2017), http://time.com/4811561/revenge-porn/.

70 The language utilized by several states for their revenge porn laws maintains core elements that appear to be uniform across several states. This includes the intent of the offender and the distress suffered by the victim. The virtual element of these laws is merely the distribution of the intimate images. *See* Tex. Penal Code Ann. § 21.16; Cal. Penal Code § 647(j)(4); *see also 40 States and DC Have Revenge Porn Laws*, Cyber Civil Rights Initiative, https://www.cybercivilrights.org/revenge-porn-laws/.

71 Seelagy, *supra* note 68, at 421.

72 *Id.*

73 *Id.*

74 *Id.*

For example, user-a is aware that user-b has a weak heart, and user-a subjects user-b to an extreme phobia. With the added realism associated with VR, the result could be death. The actions of user-a "might be considered negligent or reckless" or, under other circumstances, deliberate.[75] There is an abundance of instances where causing a heart attack has been enough to convict an individual of homicide and, presuming the prosecution proves both cause and effect, a homicide conviction can be justified based on death by a heart attack caused by stress from actions of the defendant.[76]

Based on this reasoning, there is a possibility of foreseeing a similar type of conviction coming from an incident occurring via VR. The avatar itself is not the concern; there is not a concern if an avatar dies or is hurt. The concern is the human associated with the avatar, especially for VR where the line between virtual and non-virtual becomes less extreme. With that said, for homicide at least, current laws do not necessarily have to be adjusted. There are foreseeable instances where you could argue under current law that a VR homicide is possible. If someone meets the requirements for such a crime utilizing VR then they can be charged, similar to people who are charged with homicide crimes when victims die of a heart attack.

However, with virtual sexual offenses, this becomes more complicated. As was apparent above in the examination of the state penal codes of New York, California, and Texas, fitting virtual sexual offenses under non-virtual sexual offense state laws may be difficult because of the requirement of physical touching and contact.[77] Currently, the way the laws are written it would be unlikely that virtual sexual offenses would meet the requirements a lot of sexual offense laws have put forth. For instance, where the homicide involved a heart attack, experts are often brought in to testify as to the likely cause, and in some instances detailing the link between the action on the part of the offender and the result of the heart attack.[78] Perhaps this same method could be utilized by bringing in an expert to detail the experience of the victim, and the effect on the victim. However, the requirement of touch or physical contact would still be an issue, so it is unlikely that, currently, virtual sexual offenses meet the requirements for criminal liability.

IV. How to Address the Issues of Anonymity?

If virtual sexual offenses carry the necessary requisite criminal liability, then the most significant issue the legal system will face with these cases is the issue of anonymity. It has long

[75] *Id.*

[76] *See* Baraka v. Kentucky, 194 S.W.3d 313, 316-17 (Ky. 2006) (citing *People v. Stamp*, 82 Cal. Rptr. 598, 602-03 (Cal. Dist. Ct. App. 1969) (affirming conviction of felony murder where pathologist testified that severe stress experienced during robbery by defendant caused victim's fatal heart attack); Maynard v. State, 660 So. 2d 293, 296 (Fla. Dist. Ct. App. 1995) (upholding conviction of manslaughter where defendant's physical assault of victim produced no discernible physical injuries but victim died of heart attack, and medical examiner testified that the altercation caused the fatal heart attack); Cromartie v. Georgia, 620 S.E.2d 413, 416 (Ga. 2005) (affirming conviction of vehicular homicide where intoxicated driver struck pedestrian who died of heart attack, and medical examiner testified that collision "directly and materially contributed" to pedestrian's death); North Carolina v. Atkinson, 259 S.E.2d 858, 864 (N.C. 1979), *overruled on other grounds by* North Carolina v. Jackson, 273 S.E.2d 666 (N.C. 1981) (upholding conviction of felony murder where medical examiner testified that victim died of heart attack and that injuries and stress caused by defendant's assault of victim contributed to and accelerated victim's death).

[77] *See* N.Y. Penal Code § 130.52; Cal. Penal Code § 243.4; Tex. Penal Code Ann. § 22.01.

[78] *See Atkinson*, 259 S.E.2d at 864.

been established that the First Amendment protects the right to speak anonymously.[79] Further, anonymity is a concept that the Supreme Court seeks to protect and through several decisions has reiterated the desire to uphold historical anonymous advocacy and dissent.[80] However, as mentioned above, freedom of speech is not absolute, and the same limitations are associated with the right to remain anonymous.[81] As the internet increased in popularity, subpoenas to unmask anonymous internet users increased.[82] Over time, concern arose among courts regarding potential misuse of these subpoenas which could be used to harass or intimidate,[83] which is ironic because anonymity on the internet has been used as a tool to harass and intimidate. If legislatures and courts want to make strides in the treatment of virtual sexual offenses, then the issues of online anonymity will have to be addressed.

a. Anonymous Users Online

Currently, the process of finding out the identities of anonymous users is fairly extensive.[84] Investigators first need to seek out a computer forensics specialist to trace a user's account to their real identity via their Internet Protocol (IP) address.[85] Identification through an IP address will likely be successful a majority of the time, due to the average users not having the knowledge or ability to readily misrepresent or hide their IP address. Notably, some services which are vital to the use of VR purposely state in their terms of use that it is a violation of their terms to hide or give a false IP address via a proxy.[86] Further, some services used to hide IP addresses still maintain a user's IP address, making it possible to still trace user's real identity with minimal effort.[87] However, the process of identifying anonymous users increases in difficulty if more advanced steps are taken to hide the IP address.[88]

There are two methods which may be utilized to hide an IP address, proxies and Virtual Private Networks (VPNs).[89] A proxy server makes it appear that your internet activities are coming from somewhere else in the world. It is useful for tasks which require hiding an IP address, like circumventing region blocks.[90] However, proxies do not encrypt the data between a person's computer and the proxy server.[91] This means that by examining the stream of data it is possible to determine a user's identity.[92] VPNs work similarly to proxies in that they also give the appearance of a remote IP address, but the stream of data runs through an encrypted route

[79] Thaddeus Houston, *Constitutional Drag Race: Anonymous Online Speech After Digital Music News v. Superior Court*, 30 Berkeley Tech. L.J. 1243, 1256 (2015) (citing *Watchtower Bible & Tract Soc'y v. Vill. of Stratton*, 536 U.S. 150, 166-67 (2002)); McIntyre v. Ohio Elections Commission, 514 U.S. 334, 341-42 (1995); Talley v. California, 362 U.S. 60, 64 (1960)).

[80] Matthew Mazzotta, *Balancing Act: Finding Consensus on Standards for Unmasking Anonymous Internet Speakers*, 51 B.C.L. Rev. 833, 838 (2010).

[81] *Id.* at 839.

[82] *Id.* at 844.

[83] *Id.*

[84] Seralathan, *supra* note 67, at 429.

[85] *Id.*

[86] Steam is the largest digital distribution platform for PC gaming and is estimated to have 75% of the digital market space. The digital market place is growing in popularity and represents a little less than 20% of the global market, a number which continues to grow. *See Steam Subscriber Agreement*, Valve Corp., https://store.steampowered.com/subscriber_agreement/; *see also* Cliff Edwards, *Valve Lines Up Console Partners in Challenge to Microsoft, Sony*, Bloomberg (Nov. 4, 2013), https://www.bloomberg.com/news/articles/2013-11-04/valve-lines-up-console-partners-in-challenge-to-microsoft-sony.

[87] *See generally* Jason Fitzpatrick, *What's the Difference Between a VPN and a Proxy?*, How-To-Geek (July 25, 2016), https://www.howtogeek.com/247190/whats-the-difference-between-a-vpn-and-a-proxy/.

[88] Seralathan, *supra* note 67, at 429-30.

[89] Fitzpatrick, *supra* note 87.

[90] *Id.*

[91] *Id.*

[92] *Id.*

before reaching the internet.[93] They can prevent Internet Service Providers (ISPs) from accessing the information between a user's computer and the VPN server.

However, VPNs are not without their downsides. To utilize VPNs properly, individuals will need good hardware to handle the task.[94] In addition, users of VPNs are likely going to have to pay to utilize the service. This also means that VPNs do not completely protect identity, as law enforcement agencies can still contact VPN providers to request they provide any records they hold on VPN servers or agencies and could attempt to get a warrant to gain this information.[95] Nevertheless, users of VPNs are still not a significant concern due to only 17% of the total internet users in North America and Europe utilizing VPNs, though in territories with more restrictive internet censorship this number is higher.[96]

While these tasks are often time-consuming and absorb resources, it is possible in most cases to eventually find the identity of an individual online. In fact, law enforcement agencies still maintain the power to obtain warrants to find anonymous identities of users online.[97] The government needs to confirm there is probable cause in the unveiling of the identity, but once probable cause is shown agencies can serve them on ISPs. The issue with this method is the amount of time and resources law enforcement agencies must allocate.[98] It can sometimes be unclear which ISP to serve the court order on, and often agencies must go from ISP to ISP before they determine the correct one to begin the legal process.[99] A relatively recent concept law enforcement agencies are seeking to implement is serving Regional Internet Registries (RIRs) who allocate IP addresses to ISPs.[100] It is a concept that RIRs are receptive to, and it could lead to cooperation between law enforcement and RIRs more readily.[101] This would allow for a more streamlined process, saving time and resources.[102]

Other methods are also available to reveal the identity of an anonymous user on the internet.[103] The FBI, through a search warrant, can utilize malware developed by the agency to discover the identity of an anonymous user.[104] Further, the FBI has used the "watering hole method" to find the identity of anonymous users.[105] This "watering hole method" involves placing malware on a website where mere con-

93 *Id.*

94 *Id.*

95 *See, e.g.*, Mark Kaufman, *This Cyberstalker's Takedown Proves No One Stays Anonymous on the Web*, Mashable (Oct. 10, 2017), https://mashable.com/2017/10/10/cybertalker-arrest-no-more-online-anonymity/#TXa_sF4DMqqc (discussing an example of law enforcement retrieving records from a VPN programming company).

96 *See* Josephine Wolff, *The Internet Censor's Dilemma*, Slate (Mar. 5, 2018), https://slate.com/technology/2018/03/virtual-private-networks-become-more-popular-as-countries-restrict-their-use.html.

97 *See*, *e.g.*, Michele Meyer McCarthy, Annotation, *Right of Corporation, Absent Specific Statutory Subpoena Power, to Disclosure of Identity of Anonymous or Pseudonymous Internet User*, 120 A.L.R.5th 195 (2004) (outlining how various courts have established a four-part test to determine when a plaintiff in a civil suit is permitted to subpoena internet services providers to disclose the identity of anonymous users).

98 *See* Joseph Cox, *Police Agencies Want an Easier Time Serving Warrants to ISPs*, Vice: Motherboard, (Nov. 2, 2016), https://motherboard.vice.com/en_us/article/mg7kvx/police-agencies-want-an-easier-time-serving-warrants-to-isps (explaining that law enforcement agencies cannot efficiently identify users due to inaccurate WHOIS information).

99 *Id.*

100 *Id.*

101 *Id.*

102 *Id.*

103 *See* Devin M. Adams, *The 2016 Amendments to Criminal Rule 41: National Search Warrants to Seize Cyberspace, "Particularly" Speaking*, 51 U. Rich. L. Rev. 727, 738 (2017) (illustrating how the FBI utilizes social engineering to identify anonymous IP addresses).

104 *Id.*

105 *Id.* at 740.

nection to the site results in the installation of the malware onto the computer.[106] This demonstrates that there are very little, if any, true anonymous methods to hide from authorities. The only limitation is the amount of time and resources a law enforcement agency wishes to dedicate to cybercrimes of varying severity.

b. Investing in Computer Crime Investigation

As mentioned above, the process of identifying anonymous users can be very time consuming and requires training. Further, cooperation with outside investigative agencies increases costs significantly.[107] This may be why cyber harassment laws are somewhat underenforced; often the punishments associated with the offenses do not justify the resources used.[108] Some jurisdictions have computer crime departments while other jurisdictions do not; however, there seems to be a lack of adequate training in how to deal with cybercrimes across jurisdictions.[109] The key to progressing enforcement of these laws successfully is to dedicate the proper resources and finances to train and provide agencies with the proper resources to investigate cybercrimes. If a cybercrime is a misdemeanor, there is likely less incentive for agencies to dedicate time and money to uncover the identity of an anonymous internet user as opposed to one who has committed a significant felony.

The most significant step to address the issue of anonymity and criminal activity is the need for dedicated resources just for cybercrimes. If cities and states had dedicated departments to investigate these crimes, then it could make strides in how these laws are treated. It is better to start dedicating the resources now because cybercrimes are growing every year, and eventually they could make up an even more significant section of crime.[110] At that point, law enforcement agencies, local, state, and federal, are going to want to have the resources already in place to investigate these crimes with full dedication. Resource allocation among law enforcement agencies will need to be addressed if virtual sexual offenses are to be criminalized, because if not they are likely to be underenforced in the same manner cyber harassment laws currently are.

V. Crafting a Standard

VR technology has advanced to a degree that causes users to react to stimuli as if they were experiencing the event in everyday life. In fact, technology within the VR industry is quickly advancing with full-body suits making progress to incorporate touch-based sensory feedback along with the normal 360-degree visual and audio experience the technology provides.[111] VR does not appear to be an area of technology that is slowing down with advancement and it is more interactive in the experience it provides to the user than any technology before it. The online gaming arena appears to be a more volatile place for women, though men are also targets.[112] If you take the hostile

[106] *Id.* at 740-41.
[107] Seralathan, *supra* note 67, at 429.
[108] *Id.*
[109] Naomi Harlin Goodno, *Cyberstalking, A New Crime: Evaluating the Effectiveness of Current State and Federal Laws*, 72 Mo. L. Rev. 125, 156 (2007).
[110] *Id.*
[111] Seth Porges, *This 'Synesthesia Suit' Allows VR Users To Physically Feel Virtual Worlds* (Oct. 27, 2016) Forbes, https://www.forbes.com/sites/sethporges/2016/10/27/this-synethesia-suit-allows-vr-users-to-physically-feel-virtual-worlds/#40c4df9f71db.
[112] In 2012, Anita Sarkeesian announced a kick-start for a series looking at sexism in video games. Sarkeesian was met with anonymous and non-anonymous rape and death threats. This was followed by similar internet mob attacks on women in the video game industry. Zoe Quinn, developer of the game *Depression Quest*, found herself the target of numerous rape and death threats

environment in some areas of the internet, in combination with the level of interactivity VR provides, it becomes unlikely that Belamire's experience with virtual groping will be the last.

Traditionally, criminal law has been utilized to punish crimes that involve tangible property or physical injury to the body.[113] Psychological harm was rarely addressed, but over time nonphysical harm has become more readily criminalized, like harassment or bullying.[114] Some neuroscientists theorize that developments in science "will enable visualization of psychological harms, reducing or eliminating the distinction between bodily harm and psychological damage."[115] This could mean that the gap between physical and psychological injury might be narrowed, which allows for the overt distinction criminal law has established between the two to diminish.

According to Belamire, her experience of virtual groping did not feel dissimilar to other sexual offenses she was exposed to in her life. This is where a model statute could benefit the criminal law system. Current sexual offense laws require some form of physical contact, thereby not addressing psychological harm induced by virtual sexual offenses. Science acknowledged that the gap between the physical harm and psychological harm can be indistinguishable. As VR technology advances, criminal law will need a model statute which fills in the gaps of current sexual offense laws.

a. Federal or State

In determining whether the statute should be applied on the state level or the federal level, it is necessary to examine the advantages and disadvantages of both. At the federal level, there are already existing cyber laws that would be somewhat similar to a potential virtual sexual offense law.[116] The problems with federal enforcement of cyber laws is that federal agencies often lack the resources to address most cyber cases.[117] Unless the matter relates to national security, federal agencies tend to put these crimes on the backburner. Often, federal agencies can only address the most serious crimes but are well-trained in the investigation and handling of cybercrimes.[118]

At the state level, law enforcement agencies often lack the funding and familiarity with technology to properly handle cybercrimes.[119] Law enforcement at the state level also often lack the proper training to investigate such crimes.[120] However, if properly trained, state agencies could potentially address the crimes that the federal government simply leave behind because they wish to dedicate their resources to more serious crimes. It is difficult to say one path would be better than the other because state and federal agencies both have benefits and downsides.

after an ex-boyfriend accused Quinn in a blog post of cheating on him several times over the span of their relationship. Further, the ex-boyfriend lobbed accusation that Quinn received acclaim for her game Depression Quest due to her affairs, which was later proven false. Quinn had nude photos of her released, along with personal information requiring her to flee her home. Later that year Sarkeesian had an event cancelled at Utah State University canceled after the Dean received threats of a school shooting. *See* Danielle Keats Citron, *Addressing Cyber Harassment: An Overview of Hate Crimes in Cyberspace*, 6 Case W. Reserve J.L. Tech. & Internet 1, 2 (2015); *see also* feministfrequency, *Damsel in Distress: Part 1–Tropes vs Women in Video Games*, YouTube (2013), https://www.youtube.com/watch?v=X6p5AZp7r_Q&ab_channel=feministfrequency.

[113] Seelagy, *supra* note 68, at 426.

[114] *Id.*

[115] *Id.*

[116] Citron, *supra* note 112, at 5.

[117] *Id.*

[118] *Id.*

[119] *Id.*

[120] *Id.*

If it were possible, the best route may be a statute that could be adopted on both levels, allowing for modification where states and the federal government see fit. However, if proper training can be provided to state and local law enforcement then adopting the statute on the state level would be optimal. Federal law enforcement does seem to be more concerned with far more serious crimes involving national security. It becomes more difficult to foresee federal agencies making this a priority, but states can dedicate resources to ensure that state and local law enforcement receive the proper training to handle cybercrime cases on a smaller scale.

b. Mental Health Expert

For a proposed statute, and for the purposes of investigation, the most difficult task will be determining if psychological harm has occurred. One potential method to address this is having a mental health expert, a psychologist or psychiatrist, examine the victims and make a diagnosis. As mentioned above in Part III, experts have been used in homicide cases where the cause of death was a heart attack.[121] The experts then comment on whether the defendant was ultimately the cause of said heart attack.[122] Theoretically, the same could be achieved with virtual sexual offenses.

A mental health expert would be able to provide the proper context to what the victims are experiencing. [123] Further, a psychologist can already be appointed by a court to make a diagnosis or recommendation at a judge's request.[124] Ideally, this could be a potential avenue for gaining probable cause to obtain warrants to get through anonymity issues. It could tie into other aspects of the investigation that law enforcement agencies would need to conduct, and it would allow for an expert to converse with the victim. This would allow for a potential determination as to whether the victims have experienced significant mental harm from the experience. Ultimately, it may allow law enforcement agencies to dedicate resources in other areas of the investigation, leading to a potential streamlining of the process.

c. A Proposed Model Statute

Sec. [insert]. UNCONSENUAL VIRTUAL SEXUAL TOUCHING. (a) A person commits the offense of unconsensual virtual sexual touching if the person via VR interaction:

(a) Intentionally or knowingly, touches the sexual or other intimate parts of an avatar without the consent of the user for the purpose of degrading or abusing the avatar's user; or,
(b) Intentionally or knowingly, touches the sexual or other intimate parts of an avatar without the consent of the user for the purpose of sexual arousal or sexual gratification.
(c) As used in this section, the following terms have the following meanings:
    a. "Touching" means contact with another person's avatar.
    b. "Sexual parts" and "intimate parts" mean sexual organs, anus, groin, or buttocks of any person, and the breast of a female.

[121] Baraka v. Kentucky, 194 S.W.3d 313, 313 (Ky. 2006).
[122] *Id.*
[123] Edward Stern, *The psychologist's role as expert witness*, New England Psychologist (Aug. 15, 2011), http://www.nepsy.com/articles/columnists/the-psychologists-role-as-expert-witness/.
[124] *Id.*

c. "VR" means a computer-generated environment which allows for the interaction of users via headsets, directional treadmills or other like products meant to provoke an illusion of reality.
d. "Avatar" means the virtual representation of a user.

(d) A violation of this law is punishable by imprisonment for no more than [insert], and by a fine not exceeding [insert].

d. Structure of the Model Statute

The model statute has been crafted utilizing key elements between the laws mentioned in Part I. The model statute itself is a combination of the current groping laws New York, California, and Texas.[125] The reason behind this is that they all have elements that need to be present in a model virtual touching statute. Texas' law provides a simple mens rea requirement: that the offender must act intentionally or knowingly.[126] This is beneficial because it shows purpose behind the potential offense. Intentionally or knowingly are also the proper requirement because it helps to demonstrate that virtual sexual offenses must be done deliberately by the offender. Recklessly was also included in the Texas law, but in a virtual space, it is more difficult to say someone acted recklessly because they are controlling the actions of their avatar. For this reason, it was left out of the model statute.

New York's law contains language which focuses on the forcible requirement, meaning the lack of consent.[127] This, of course, needs to be in any model statute for a sexual offense because if there is full consent, that is not revoked at any point, then there is no sexual offense. Further, it addresses the purpose behind the offender's actions as an element of the crime.[128] It helps to say the offender either must be committing the crime for sexual gratification or to degrade the user through their avatar. Those are two instances where there is more desire to likely protect victims and punish offenders. It ties in well with the intent of the offender. California's law details the potential punishment an individual could face for the violation of the statute.[129] This is likely an area where states would have a lot of options in terms of how the potential crimes are treated. Based on other sexual touching laws, it is more likely that they will fall into the misdemeanor category. Further, California's law also provides a helpful list of definitions to convey the proper meaning of the words within the law and attempt to avoid misconceptions.[130] One of the most significant issues with current sexual touching laws is the definition of touching because it limits the application to non-virtual sexual offenses, though the psychological harm from such an event may be present.

Conclusion

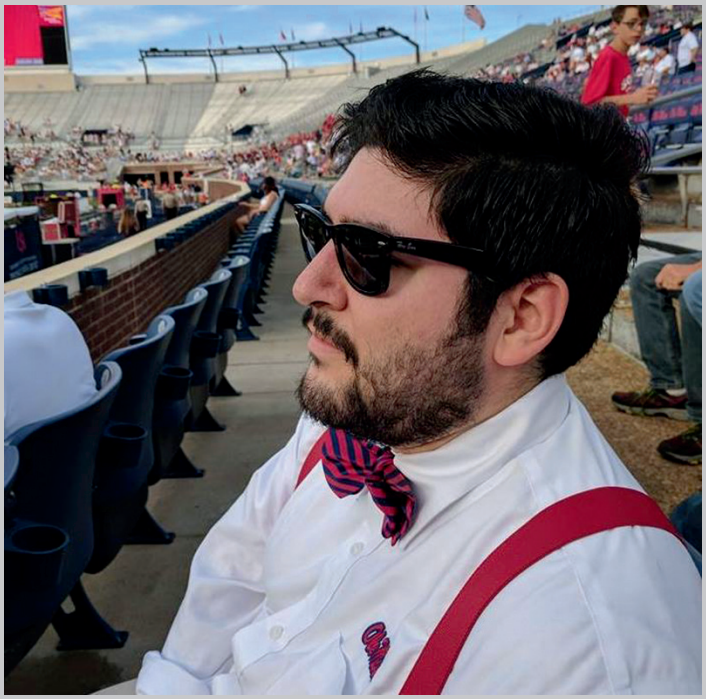
VR technology is advancing very quickly and if governments do not take steps to address an issue that is on the horizon, they may be caught off guard. Current VR technology surpasses any technology currently available in terms of interactivity. VR is creating an environment where people are not at risk of actual harm, but the stimuli from VR can trigger sensations or emotions because at the moment it can be difficult for the brain to distinguish

[125] *See* N.Y. Penal Code § 130.52; Cal. Penal Code § 243.4; Tex. Penal Code Ann. § 22.01.
[126] Tex. Penal Code Ann. § 22.01.
[127] N.Y. Penal Code § 130.52.
[128] *Id.*
[129] Cal. Penal Code § 243.4.
[130] *Id.*

between virtual and non-virtual. While this might not be a problem if you are experiencing a temporary inability to distinguish when you are falling off a virtual mountain or riding a virtual rollercoaster with all its twists and turns, virtual sexual offenses seem different. It seems like unlike stimuli which go away after the VR headset comes off, virtual sexual offenses can stick with the user. Perhaps this is because the other experiences remain still somewhat separated from the user. Virtual sexual offenses are very much targeted against a specific person, as opposed to falling off a virtual mountain which is not seeking to causes a reaction besides a potential thrill. The intention is not to hurt the user or degrade them in any way.

Instead, virtual sexual offenses are an experience that could be traumatic, especially for those who have experienced sexual assault or other sexual offenses in the real world. The purpose is to hurt and degrade the user, so it makes it much more harmful than the scenario where someone is falling from a virtual mountain. The internet, especially in the gaming world, can be a hostile place when it comes to gender and race. This is not universal of the entire community, but this hostility is present within gaming. It makes it more likely virtual sexual offenses may occur. If states want to be ahead of a potential issue, then adopting a standard like the one proposed in this Article is a step states can take. VR technology is likely to advance further and blur the line between the virtual and non-virtual world further. It is also unlikely that the internet will become a less hostile place. Having a law in place when a new area of crime is beginning to emerge helps the victims. It makes them feel as if there is recourse. If governments want to be ahead of the issue and give potential victims the knowledge that they are entitled to some form of justice, then the reaction should be to adopt the proper statutes to give them justice.

About the AUTHOR



Ryan is a 2018 graduate of the University of Mississippi School of Law. During his time in law school, he developed a particular scholarly interest in Intellectual Property law and International law which has culminated into multiple journal publications focused in these areas. When not writing about law, Ryan spends his time fishing on the Gulf Coast and enjoying the best of Austin, TX where he currently resides.

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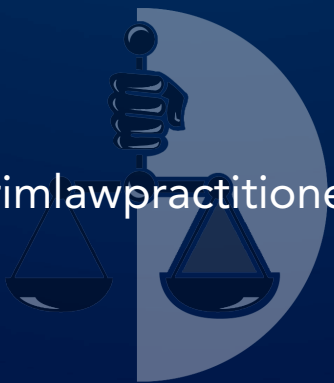

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