2021

Weed, Dogs & Traffic Stops

Alex C. Carroll

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INTRODUCTION

“Marijuana isn’t meth. But drug-detection dog Talu can’t tell the difference.”¹

In the eyes of law enforcement, traffic stops and drug dogs go together like Cheech and Chong.² The reason is largely twofold.³ First, “routine” traffic stops
are a part of everyday life in the United States. In 2015 alone, over twenty-five million United States residents experienced a police-initiated traffic stop as either the driver or passenger of a vehicle. Second, law enforcement agencies nationwide use routine traffic stops to fight the War on Drugs. Their weapon of choice: the drug-detection dog.

Consider an illustrative example: K-9 Officer William Wheeley is on patrol with Aldo—a German Shepherd trained to detect marijuana, methamphetamine, cocaine, and heroin—when he observes a truck driving with an expired license plate. After initiating a traffic stop, he approaches the truck and notices that its driver, Clayton Harris, is visibly nervous. He asks Harris for consent to search the truck, but Harris refuses. Accordingly, Officer Wheeley retrieves Aldo from his patrol vehicle. He walks Aldo around the truck, and Aldo alerts to the presence of a controlled substance near the driver’s side door. Officer Wheeley then searches the truck, but finds nothing of interest. He writes Harris a ticket for the traffic violation and concludes the stop.

Far from uncommon, law enforcement’s use of drug-detection dogs during routine traffic stops is a practice to which courts have widely approved. The stops not to hand out tickets, or even jail sentences. In the war on crime, traffic stops are a convenient opportunity to identify and eliminate threats.”); Lewis R. Katz, “Lonesome Road”: Driving Without the Fourth Amendment, 36 Seattle U. L. Rev. 1413, 1413 (2013) (noting that “our streets and highways have become a police state where officers have virtually unchecked discretion about which cars to stop for the myriad of traffic offenses contained in state statutes and municipal ordinances”).


6 See, e.g., LaFave, supra note 4, at 1844 n.8 (providing examples of federal and state initiatives designed to intercept drugs and arrest drug couriers traveling on the nation’s highways); Jordan Blair Woods, Decriminalization, Police Authority, and Routine Traffic Stops, 62 UCLA L. Rev. 672, 704 (2015) (explaining that “police authority and discretion in routine traffic stop settings . . . enable police officers to detect and to deter nontraffic crime (for example, drugs and weapons offenses”).

7 See LaFave, supra note 4, at 1894 (stating that “a good many of the officers making a traffic stop either have a drug dog with them initially or else are able to summon one to the scene in short order” and describing the use of a drug-detection dog as a common “tactic these days in police efforts to use traffic stops as a means of drug interdiction”).

8 This paragraph is loosely based on the facts of Florida v. Harris, 568 U.S. 237, 240–41 (2013).

9 See generally Brian R. Gallini, Suspects, Cars & Police Dogs: A Complicated Relationship, 95 Wash. L. Rev. 1725, 1745–51 (2021) (illustrating the vast number of lower courts that approve of law enforcement’s use of drug-detection dogs during routine traffic stops).
The United States Supreme Court has long characterized drug-detection dogs as a unique type of investigative technique because they are incapable of disclosing lawful activity. That is, a dog sniff is a binary type of investigative technique because it reveals only the location of an illegal substance. The Court has therefore held that a dog sniff conducted during a routine traffic stop is not a Fourth Amendment “search.”

Scholars, however, have criticized the Court’s characterization of drug-detection dogs as a binary type of investigative technique. Many scholars have argued that drug-detection dogs are simply unreliable. Other scholars have contended that drug-detection dogs are inadequately trained. Others still have


11 See, e.g., Lawrence Rosenthal, Binary Searches and the Central Meaning of the Fourth Amendment, 22 WM. & MARY BILL RTS. J. 881, 910 (2014) (explaining that a binary investigative technique is one that discloses no more than “contraband or evidence of other illegal activity”); Laurent Sacharoff, The Binary Search Doctrine, 42 HOFSTRA L. REV. 1139, 1141 (2014) (characterizing the Supreme Court’s modern Fourth Amendment jurisprudence governing dog sniffs as “the ‘pure binary search doctrine’”); Ric Simmons, The Two Unanswered Questions of Illinois v. Caballes: How to Make the World Safe for Binary Searches, 80 TUL. L. REV. 411, 413 (2005) (“The most widespread example of a binary search today is the use of drug-detection dogs that alert only if they smell illegal substances.”).

12 Caballes, 543 U.S. at 410. To be clear, a routine traffic stop is a police-initiated encounter based solely upon a traffic infraction, the scope of which is limited to the officer deciding “whether to issue a traffic ticket” and conducting “ordinary inquiries incident to [the traffic] stop.” Rodriguez v. United States, 575 U.S. 348, 355 (2015) (alteration in original) (quoting Caballes, 543 U.S. at 408). A dog sniff conducted during a routine traffic stop refers to “a canine sniffing the air” surrounding a vehicle, but “not touching or pawing” the vehicle. Lewis R. Katz & Aaron P. Golembiewski, Curbing the Dog: Extending the Protection of the Fourth Amendment to Police Drug Dogs, 85 NEB. L. REV. 735, 736 n.2 (2007). For the balance of this article, unless specified otherwise, any reference to a drug-detection dog or a dog sniff refers to one that is trained to reveal the location of marijuana.


14 See, e.g., Nina Paul & Will Trachman, Fidos and Fi-Donis: Why the Supreme Court Should Have Found a Search in Illinois v. Caballes, 9 BOALT J. CRIM. L. 1, 28 (2005); Cynthia A. Sherwood et al., Even Dogs Can’t Smell the Difference: The Death of ’Plain Smell,’ as Hemp is Legalized, TENN. B.J., Dec. 2019, at 14, 15; Monica Fazekas, Comment, Pawing Their Way to the Supreme Court: The Evidence Required to Prove a Narcotic Detection Dog’s Reliability, 32 N. ILL. U. L. REV. 473, 504 (2012).

maintained that police bias drives drug-detection dogs to give false alerts. But the overwhelming majority of scholarship has overlooked an increasingly pervasive infirmity plaguing the conclusion that drug-detection dogs are a binary type of investigative technique: Marijuana is legal for recreational or medicinal use in thirty-seven states.

Admittedly, one scholar has recognized that the legalization of marijuana among a majority of states has undermined the conclusion that a dog sniff presents a binary proposition. No article, however, has yet examined the


18 State Medical Marijuana Laws, NAT’L CONF. OF ST. LEGISLATURES (Nov. 10, 2020), www.ncsl.org/research/health/state-medical-marijuana-laws.aspx [https://perma.cc/GLW3-FMWK]. For purposes of this article, only states that have “comprehensive medical marijuana programs” are considered to have legalized marijuana for medicinal use; states that have “[l]ow THC programs” are not considered to have legalized marijuana for medicinal use. Id. A state’s medical marijuana program is “comprehensive” if it: (1) offers “[p]rotection from criminal penalties for using marijuana for a medical purpose”; (2) provides “[a]ccess to marijuana through home cultivation, dispensaries or some other system that is likely to be implemented”; (3) “allows a variety of strains or products, including those with more than ‘low TCH’”; (4) “allows either smoking or vaporization of some kind of marijuana products, plant material or extract”; and (5) “[i]s not a limited trial program,” e.g., one “not open to the public.” Id. As of 2020, thirty-six states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands have approved “comprehensive” medical marijuana programs. Id. Fifteen of those thirty-six states, the District of Columbia, and Guam have also legalized marijuana for recreational, “adult use.” Id. For simplicity, this article includes the District of Columbia as one of the thirty-seven “states” that have legalized marijuana for recreational or medicinal use. It does not include Guam, Puerto Rico, or the United States Virgin Islands. For a full list of the thirty-seven states that have legalized marijuana for recreational or medicinal use, see infra notes 209–10.

19 See Hiance, supra note 17. Christy Hiance’s piece, No Longer Working Like A Dog: Cannabis and Canine Sniff Jurisprudence Under the Binary Search Doctrine, persuasively argues that “the binary search doctrine should no longer apply to dogs that have been trained to detect cannabis” and that a sniff by such a dog “should necessitate the protection of Fourth Amendment review . . . .” Id. The piece, however, omits the following significant Fourth Amendment considerations in doing so.

First, it fails to recognize that an individual’s reasonable expectation of privacy in possessing a given item turns largely on where the item is located at the time of the alleged intrusion. See Katz v. United States, 389 U.S. 347, 351 (1967) (“What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection.”); cf. Hudson v. Palmer, 468 U.S. 517, 530 (1984) (holding that an inmate has no reasonable expectation of privacy in the contents of a prison cell). In states that have legalized marijuana, the substance remains categorically illegal in prisons and schools; an individual therefore has no reasonable expectation of privacy in possessing marijuana in those locations. See infra notes 353–56 and accompanying text. The result, then, is that a dog sniff conducted in a prison or school almost certainly remains a binary proposition—even in states that have legalized marijuana for recreational or medicinal use. See infra notes 357–59 and accompanying text.
doctrinal impact that legalized marijuana has on the Fourth Amendment principles governing drug-detection dogs in the specific context of routine traffic stops. Moreover, no article has considered the downstream impact that analysis has on the law enforcement profession more broadly.

Accordingly, this article seeks to fill that gap in the scholarly literature by making three arguments. First, in the context of routine traffic stops, it contends that drug-detection dogs are a nonbinary type of investigative technique in the thirty-seven states (and counting) that have legalized marijuana for recreational
or medicinal use. Second, it asserts that a dog sniff conducted during a routine traffic stop is a Fourth Amendment “search” in states that have legalized marijuana for recreational or medicinal use. Third, it maintains that law enforcement agencies operating in those states must retrain their drug-detection dogs to be incapable of revealing the location of marijuana or replace their drug-detection dogs with those that are incapable of the same. At its core, this article provides the judiciary and law enforcement profession with a constitutional path forward.

Part I explores the United States Supreme Court precedent governing drug-detection dogs. First, it provides the constitutional doctrines defining what amounts to a Fourth Amendment “search.” Second, it demonstrates how those doctrines apply to dog sniffs conducted during routine traffic stops. Part II then tells the fascinating story of marijuana’s history in the United States. It follows marijuana’s journey from being legal nationwide, to being illegal nationwide, to being legal in thirty-seven states for recreational or medicinal use. In doing so, it summarizes a handful of those states’ laws.

Part III closely reexamines the Fourth Amendment’s treatment of dog sniffs conducted during routine traffic stops. To start, it demonstrates that lower courts have begun to consider the constitutionality of dog sniffs conducted during routine traffic stops in states that have legalized marijuana for recreational or medicinal use. Afterward, it makes two arguments. First, it contends that a dog sniff conducted during a routine traffic stop is a nonbinary type of investigative technique in the thirty-seven states that have legalized marijuana for recreational or medicinal use. Second, it asserts that a dog sniff conducted during a routine traffic stop is a Fourth Amendment “search” in those thirty-seven states.

Finally, Part IV seeks to provide the law enforcement profession with a constitutional path forward. First, it argues that law enforcement agencies
operating in states that have legalized marijuana for recreational or medicinal use must retrain their drug-detection dogs to be incapable of revealing the location of marijuana or replace their drug-detection dogs with those that are incapable of the same. Second, it illustrates several financial and administrative challenges that law enforcement agencies will encounter as they retrain and replace their drug-detection dogs. In doing so, it provides law enforcement agencies with ways to mitigate those challenges.

I. DOGS & THE FOURTH AMENDMENT

Consisting of merely fifty-four words, the Fourth Amendment to the United States Constitution reads straightforward enough:

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

The United States Supreme Court cases interpreting the Fourth Amendment, however, are anything but straightforward. To the contrary, “commentators are remarkably unanimous: The Supreme Court cases construing the Fourth Amendment are a mess . . . .”

35 See infra Section IV.A.  
36 See infra Section IV.B.  
37 See infra Section IV.B.  
39 See, e.g., Craig M. Bradley, Two Models of the Fourth Amendment, 83 Mich. L. Rev. 1468, 1468 (1985) (“The [F]ourth [A]mendment is the Supreme Court’s tarbaby: a mass of contradictions and obscurities that has ensnared the ‘Brethren’ in such a way that every effort to extract themselves only finds them more profoundly stuck.”); Orin S. Kerr, The Fourth Amendment and New Technologies: Constitutional Myths and the Case for Caution, 102 Mich. L. Rev. 801, 809 (2004) (“With so many decided cases and so few agreed-upon principles at work, trying to understand the Fourth Amendment is a bit like trying to put together a jigsaw puzzle with several incorrect pieces: no matter which way you try to assemble it, a few pieces won’t fit.”); William Shepard McAninch, Unreasonable Expectations: The Supreme Court and the Fourth Amendment, 20 Stetson L. Rev. 435, 439–40 (1991) (criticizing the Supreme Court precedent defining a Fourth Amendment “search” and the Court’s application of that precedent).  
This part seeks to provide, in straightforward fashion, the Supreme Court precedent governing drug-detection dogs. Section A offers the constitutional doctrines that define what amounts to a Fourth Amendment “search.” Section B demonstrates how those doctrines apply to dog sniffs conducted during routine traffic stops.

**A. Defining a Fourth Amendment “Search”**

The United States Supreme Court has often explained that “the basic purpose” of the Fourth Amendment “is to safeguard the privacy and security of individuals against arbitrary invasions by governmental officials.” The Fourth Amendment, the Court has reasoned, “must be construed in the light of what was deemed an unreasonable search . . . when it was adopted” and “in a manner which will conserve public interests as well as the interests and rights of individual citizens.” To that end, the Court has established two doctrines for defining what constitutes a Fourth Amendment “search.” This section provides the Supreme Court precedent establishing those two doctrines.

Well into the twentieth century, the United States Supreme Court relied on the common law doctrine of trespass—i.e., the Constitutional Trespass Test—to define a Fourth Amendment “search.” Consider, for example, the Court’s 1928

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41 See infra Section I.A.
42 See infra Section I.B.
44 Carroll v. United States, 267 U.S. 132, 149 (1925); accord Kyllo v. United States, 533 U.S. 27, 40 (2001); United States v. Ross, 456 U.S. 798, 805 (1982); United States v. Ramsey, 431 U.S. 606, 619 (1977). An unreasonable, or unlawful, Fourth Amendment “search” is one that is neither justified by a warrant nor a well-established exception to the warrant requirement. See Mincey v. Arizona, 437 U.S. 385, 390 (1978) (“The Fourth Amendment proscribes all unreasonable searches and seizures, and it is a cardinal principle that ‘searches conducted outside the judicial process, without prior approval by judge or magistrate, are per se unreasonable under the Fourth Amendment—subject only to a few specifically established and well-delineated exceptions.’” (quoting Katz v. United States, 389 U.S. 347, 357 (1967) (footnote omitted))).
45 See, e.g., Florida v. Jardines, 569 U.S. 1, 5 (2013) (explaining that the Court has used two tests for determining what amounts to a Fourth Amendment “search”); United States v. Jones, 565 U.S. 400, 400, 405–06 (2012) (noting that the Court has established a “property-based approach” and a “reasonable expectation of privacy” approach to define what amounts to a Fourth Amendment “search”) (quoting Katz, 389 U.S. at 360 (Harlan, J., concurring)).
46 See Jones, 565 U.S. at 406 (noting that “for most of our [nation’s] history the Fourth Amendment was understood to embody a particular concern for government trespass upon the areas (‘persons, houses, papers, and effects’) it enumerates”). But see Orin S. Kerr, The Curious History of Fourth Amendment Searches, 2012 SUP. CT. REV. 67, 68 (2012) (concluding that the Supreme Court did not use a “trespass test” to define a Fourth Amendment “search” until the twenty-first century).
decision of *Olmstead v. United States*.\(^{47}\) In *Olmstead*, federal agents suspected that Roy Olmstead was involved in a conspiracy to distribute liquor in violation of prohibition-era laws.\(^{48}\) The agents wiretapped Olmstead’s telephone lines without trespassing onto his property and obtained evidence incriminating him in the conspiracy.\(^{49}\) Based in part on that evidence, the government indicted Olmstead for “unlawfully possessing, transporting, and importing intoxicating liquors” in violation of federal law.\(^{50}\)

Before trial, Olmstead moved to suppress the evidence on the grounds that the wiretaps amounted to an unlawful Fourth Amendment “search.”\(^{51}\) The district court rejected Olmstead’s argument and denied his motion.\(^{52}\) The Ninth Circuit later upheld the decision of the district court.\(^{53}\) On writ of certiorari, the Supreme Court affirmed the denial of Olmstead’s motion to suppress.\(^{54}\) The Court held that no Fourth Amendment “search” occurs absent a physical trespass onto a constitutionally protected area\(^{55}\)—i.e., a person, house, paper, or effect.\(^{56}\) Because the wiretaps did not physically trespass onto a constitutionally protected area, the Court concluded that no Fourth Amendment “search” occurred.\(^{57}\)

Although the Constitutional Trespass Test won the day in *Olmstead*, the Court charted a new course four decades later in *Katz v. United States*.\(^{58}\) In *Katz*, federal agents had reason to believe that Charles Katz was using a public telephone booth to transmit illegal gambling information from Los Angeles to Miami and Boston.\(^{59}\) The agents attached an electronic listening and recording device to the exterior of the telephone booth where Katz made his calls.\(^{60}\) The


\(^{48}\) *Id.* at 455.

\(^{49}\) *Id.* at 455–56.

\(^{50}\) *Id.*


\(^{52}\) *Id.*

\(^{53}\) *Id.*

\(^{54}\) *Olmstead*, 277 U.S. at 464.

\(^{55}\) *Id.*

\(^{56}\) U.S. CONST. amend. IV.

\(^{57}\) *Olmstead*, 277 U.S. at 466. For another early example of the Supreme Court using the Constitutional Trespass Test to define what amounts to a Fourth Amendment “search,” see *Goldman v. United States*, 316 U.S. 129, 135 (1942), *overruled by* *Katz v. United States*, 389 U.S. 347 (1967).


\(^{59}\) *Id.* at 348.

\(^{60}\) *Id.*
device allowed the agents to overhear Katz enter the telephone booth, place a call, and engage in illegal gambling activity.61 The government thereafter charged Katz with “transmitting wagering information by telephone” in violation of federal law.62

At trial, Katz moved to suppress the evidence obtained through the electronic device, arguing that its use constituted an unlawful Fourth Amendment “search.”63 The district court rejected Katz’s argument and admitted the evidence.64 The Ninth Circuit later affirmed the district court’s decision.65 The Ninth Circuit held that the device’s use was not a Fourth Amendment “search” because it did not physically intrude into any area occupied by Katz.66

The Supreme Court, however, disagreed.67 Overturning the Olmstead precedent, the Court held that a Fourth Amendment “search” occurs when governmental action violates an individual’s reasonable expectation of privacy.68 It reasoned that, because “the Fourth Amendment protects people—and not simply ‘areas’—against unreasonable searches,” the presence or absence of a physical intrusion cannot be dispositive as to whether the Fourth Amendment’s protections apply.69 The Court therefore concluded that the agents’ use of the electronic device constituted a Fourth Amendment “search” because Katz had a reasonable expectation that his conversations within the telephone booth would remain private.70

Concurring with the Katz majority, Justice Harlan wrote separately to clarify “what level of protection” the Fourth Amendment provides individuals.71 He reasoned that, for a person to have a reasonable expectation of privacy in a given area, the person must show that: (1) he or she “exhibited an actual (subjective) expectation of privacy” in the area; and (2) “the expectation [is] one that society is prepared to recognize as ‘reasonable.’”72 In Justice Harlan’s view, the agents’ use of the device violated the Fourth Amendment because Katz expected his

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61 Id.
62 Id.
63 Id.
64 Id.
65 Id.
66 Id. at 348–49.
67 Id. at 359.
68 Id. at 353.
69 Id.
70 Id. (internal quotation marks omitted).
71 Id. at 361 (Harlan, J., concurring).
72 Id.
conversations would remain private and that expectation was one that society would find reasonable.\footnote{Id.}

In the decades following \textit{Katz}, the Supreme Court coined Justice Harlan's two-step analysis as the "\textit{Katz Test}" and consistently relied on it to define a Fourth Amendment "search."\footnote{See, e.g., California v. Greenwood, 486 U.S. 35, 40 (1988) (holding that no Fourth Amendment "search" occurs when police officers look through bags of trash left for collection because no reasonable expectation of privacy exists in garbage "exposed to the public"); Oliver v. United States, 466 U.S. 170, 179 (1984) (holding that no Fourth Amendment "search" occurs when police officers walk through an open field because no reasonable expectation of privacy exists in areas outside of the home and its curtilage). For a definition of curtilage, see infra note 140.} In 1971, for instance, the Court held that no Fourth Amendment "search" occurs when a police informant records a suspect's conversation because no reasonable expectation of privacy exists in what one discloses to a third party.\footnote{United States v. White, 401 U.S. 745, 752 (1971).} In 1979, the Court held that law enforcement's use of a pen register is not a Fourth Amendment "search" because no reasonable expectation of privacy exists in dialed telephone numbers.\footnote{Smith v. Maryland, 442 U.S. 735, 745–46 (1979). A "pen register" is a device that discloses the numbers dialed from a telephone. \textit{Id.} at 741. It does not disclose "any communication between the caller and the recipient of the call, their identities, [or whether the call was . . . completed . . . .]" \textit{Id.}} Seven years later, the Court held that a police flyover of a home is not a Fourth Amendment "search" because no reasonable expectation of privacy exists in areas observable from an airplane lawfully operating in the public airways.\footnote{California v. Ciraolo, 476 U.S. 207, 215 (1986). The Supreme Court has also held that a police flyover of a home conducted in a helicopter is not a Fourth Amendment "search." Florida v. Riley, 488 U.S. 445, 450–51 (1989).} More examples abound, but the point is this: After \textit{Katz}, the Constitutional Trespass Test seemed all but forgotten.\footnote{See, e.g., New York v. Class, 475 U.S. 106, 114 (1986) (holding that no Fourth Amendment "search" occurs when a police officer views a vehicle's VIN number because no reasonable expectation of privacy exists in vehicle identification numbers behind transparent windshields); Hudson v. Palmer, 468 U.S. 517, 530 (1984) (holding that no Fourth Amendment "search" occurs when police officers open a prisoner's locker because no reasonable expectation of privacy exists in the contents of a prison cell); United States v. Knotts, 460 U.S. 276, 281 (1983) (holding that no Fourth Amendment "search" occurs when police officers track a vehicle's movements on a highway because no reasonable expectation of privacy exists in one's movements "on public thoroughfares").}

That changed with the Supreme Court's 2012 decision of \textit{United States v. Jones}.\footnote{United States v. Jones, 565 U.S. 400 (2012).} In \textit{Jones}, federal agents suspected that Antoine Jones, the owner of a night club in Washington D.C., was trafficking narcotics.\footnote{\textit{Id.} at 402.} The agents installed a GPS tracking device on Jones's vehicle and monitored the vehicle's where-
abouts for four weeks, during which time they obtained over 2,000 pages of location data. Based in part on that data, the government charged Jones with several drug-trafficking conspiracy offenses under federal law.

Prior to trial, Jones moved to suppress the location data, arguing that the installation of the GPS device on his vehicle qualified as an unlawful Fourth Amendment “search.” The district court denied Jones’s motion, with the exception of the data obtained while Jones’s vehicle was parked in a garage adjoining his residence. On appeal, however, the District of Columbia Circuit suppressed all of the location data, holding that the use of the GPS device constituted an unlawful Fourth Amendment “search.”

On writ of certiorari, the Supreme Court affirmed the decision of the District of Columbia Circuit. The Court held that a physical trespass onto a constitutionally protected area is a Fourth Amendment “search.” It reasoned that the Katz Test “has been added to, not substituted for,” the Constitutional Trespass Test. Accordingly, the Court explained that its “post-Katz cases” did not foreclose the possibility that a physical trespass onto a constitutionally protected area is a Fourth Amendment “search.” Thus, it concluded that the agents conducted a Fourth Amendment “search” when they physically trespassed onto Jones’s vehicle to install the device.

To summarize, the Supreme Court’s decision in Jones makes clear that there are two ways to define a Fourth Amendment “search.” First, under the Katz test, a Fourth Amendment “search” occurs when governmental action violates an individual’s reasonable expectation of privacy. Second, under the Constitutional Trespass Test, a Fourth Amendment “search” occurs when the Government obtains information by physically trespassing onto a constitutionally protected area.

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81 Id.
82 Id. at 403.
83 Id.
84 Id.
85 Id. at 404.
86 Id.
87 Id. at 408.
88 Id. at 409.
89 Id. at 408.
90 Id. at 410. To be clear, a vehicle is “an ‘effect’ as that term is used in the [Fourth] Amendment.” Id. at 404.
91 See id. (explaining that “the Katz reasonable-expectation-of-privacy test has been added to, not substituted for, the common-law trespassory test”).
We next consider how these two doctrines apply to dog sniffs conducted during routine traffic stops.94

B. The “Binary” Dog

For nearly four decades, the United States Supreme Court has considered drug-detection dogs to be in a class to themselves among police investigative techniques.95 This section explores the Supreme Court’s treatment of drug-detection dogs. Doing so illustrates how the Katz Test and Constitutional Trespass Test apply to dog sniffs conducted during routine traffic stops.

In 1983, the United States Supreme Court first considered whether a dog sniff is a Fourth Amendment “search” in United States v. Place.96 In Place, Raymond Place flew from Miami to New York.97 When he deplaned, federal agents approached and informed him that they suspected he was trafficking narcotics.98 The agents asked Place for consent to search his two bags, but Place refused.99 They then allowed Place to leave, but kept his bags for further investigation.100 Ninety minutes later, a drug-detection dog sniffed and positively alerted to one of Place’s bags.101 The agents then received a warrant and searched Place’s bags, inside of which they found over 1,000 grams of cocaine.102

Before trial, Place moved to suppress the cocaine on the grounds that the ninety-minute detention of his bags constituted an unlawful Fourth Amendment “seizure.”103 The district court denied the motion, and Place pleaded guilty.104 On appeal, the Second Circuit reversed the district court’s decision and suppressed the cocaine, reasoning that the “prolonged seizure of Place’s baggage” amounted

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93 Jones, 565 U.S. at 406 n.3.
94 See infra Section I.B.
96 Place, 462 U.S. at 696.
97 Id. at 698.
98 Id. at 698–99.
99 Id. at 699.
100 Id.
101 Id.
102 Id.
103 Id. A Fourth Amendment “seizure” of property “occurs when there is some meaningful interference with an individual’s possessory interests in that property.” United States v. Jacobsen, 466 U.S. 109, 113 (1984).
104 Place, 462 U.S. at 699–700.
to an unlawful seizure under the Fourth Amendment. On writ of certiorari, the Supreme Court affirmed the Second Circuit’s decision, holding that the ninety-minute detention of Place’s bags was an unlawful Fourth Amendment “seizure.”

In passing, however, the Court also considered whether the dog sniff of Place’s luggage was a Fourth Amendment “search.” Answering that question in the negative, the Court held that a dog sniff of luggage located in a public place is not a Fourth Amendment “search.” It reasoned that a dog sniff is a “sui generis” — i.e., unique — type of investigative technique because it is incapable of disclosing lawful activity. Instead, the Court explained, a dog sniff “discloses only the presence or absence of narcotics,” in which a person has no reasonable expectation of privacy. Thus, the sniff of Place’s luggage was not a Fourth Amendment “search.”

In the two decades following Place, the Supreme Court did little to clarify whether a dog sniff conducted during a routine traffic stop is a Fourth Amendment “search.” That changed in 2005, with the Court’s decision in Illinois v. Caballes. In Caballes, Illinois State Trooper Daniel Gillette stopped Roy Caballes for speeding. During the stop, Craig Graham, “a member of the Illinois State Police Drug Interdiction Team,” arrived at the scene with his drug-detection dog. The dog sniffed Caballes’s vehicle and alerted to the presence of narcotics in the trunk. Officer Graham and Trooper Gillette then “searched the trunk, found marijuana, and arrested [Caballes].” Ultimately, however, the Supreme Court of Illinois suppressed the marijuana.

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105 Id. at 700.
106 Id.
107 Id. at 707.
108 Id.
109 Sui Generis, Black’s Law Dictionary (11th ed. 2019) (defining sui generis as “[o]f its own kind or class; unique or peculiar).
110 Place, 462 U.S. at 707.
111 Id. (emphasis added).
112 Id.
113 In 2000, however, the Court concluded in dicta that a dog sniff of a vehicle stopped at a highway checkpoint is not a Fourth Amendment “search.” City of Indianapolis v. Edmond, 531 U.S. 32, 40 (2000).
115 Id. at 406. Specifically, Trooper Gillette stopped Caballes “for going 71 miles an hour on [interstate] I-80 . . . .” Id. at 414 n.4 (Souter, J., dissenting).
116 Id. at 406 (majority opinion).
117 Id.
118 Id.
119 Id. at 407.
On writ of certiorari, the Supreme Court vacated and remanded the decision of the Illinois Supreme Court. The Supreme Court held that “[a] dog sniff conducted during a concededly lawful traffic stop” is not a Fourth Amendment “search” if it reveals only “the location of a substance that no individual has any right to possess.” It reasoned that “governmental conduct that only reveals the possession of contraband ‘compromises no legitimate privacy interest.’” For those reasons, the Court concluded that the dog sniff of Caballes’s vehicle was not a Fourth Amendment “search.”

At this juncture, it is worth highlighting three commonalities between Place and Caballes. First, both cases concluded that a dog sniff is not a Fourth Amendment “search” under the Katz Test. Second, both cases reached that conclusion by reasoning that a dog sniff is a binary type of investigative technique, meaning that a dog sniff is incapable of detecting lawful activity. Third, both cases were decided before Jones and therefore left unanswered whether the Constitutional Trespass Test applies to dog sniffs.

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120 Id. at 410.
121 Id. (emphasis added).
122 Id. at 408 (quoting United States v. Jacobsen, 466 U.S. 109, 123 (1984)).
123 Id. at 410. Dissenting from the Caballes majority, Justice Souter criticized the majority's reliance on Place, arguing that “the infallible dog . . . is a creature of legal fiction.” Id. at 411 (Souter, J., dissenting). Citing authority demonstrating the unreliability of drug-detection dogs, he reasoned that the “aura of uniqueness” surrounding dog sniffs had disappeared, along with “the basis” of the Court’s reasoning in Place.
124 See, e.g., id. at 410 (majority opinion) (“The legitimate expectation that information about perfectly lawful activity will remain private is categorically distinguishable from respondent's hopes or expectations concerning the nondetection of contraband in the trunk of his car.”); United States v. Place, 462 U.S. 696, 707 (1983) (concluding that a dog sniff of luggage is not a Fourth Amendment “search” because it violates no reasonable expectation of privacy).
125 Caballes, 543 U.S. at 410 (explaining that a dog sniff conducted during a routine traffic stop is not a Fourth Amendment “search” because it “reveals no information other than the location of a substance that no individual has any right to possess . . . .”); Place, 462 U.S. at 707 (characterizing a dog sniff as a unique form of investigative technique because it “discloses only the presence or absence of narcotics, a contraband item”).
126 See, e.g., Timothy C. MacDonnell, Florida v. Jardines: The Wolf at the Castle Door, 7 N.Y.U. J.L. & LIBERTY 1, 4–5 (2012) (defining a binary investigative technique as one “that reveal[s] only the presence or absence of illegal items, such as drugs . . . .”); Jessica Alfano, Note, Interior-Vehicle Sniffs: Reining in the Leash on Drug-Dog Sniffs and Searching for the “Search” that Courts Have Yet to Find, 46 NEW ENG. L. REV. 519, 524 (2012) (“Binary searches can provide law enforcement with a direct answer to whether an individual is presently engaged in illegal activity without invading that individual’s privacy.”); Michael Bell, Note, Caballes, Place, and Economic Rin-Tin-Tincentives the Effect of Canine Sniff Jurisprudence on the Demand for and Development of Search Technology, 72 BROOK. L. REV. 279, 296–97 (2006) (reasoning that “the Court’s canine sniff jurisprudence” is founded on the notion that dog sniffs are a binary type of investigative technique, meaning one that “reveal[s] only the presence or absence of illegal activity”).
127 See Caballes, 543 U.S. at 405 (decided in 2005); Place, 462 U.S. at 707 (decided in 1983).
In 2013, the Supreme Court answered that question in *Florida v. Jardines*.128 In *Jardines*, the Miami-Dade Police Department received a tip that Joelis Jardines was growing marijuana in his home.129 Detective Douglas Bartelt and his drug-detection dog went to Jardines’s home to investigate and, upon their arrival, walked onto Jardines’s front porch.130 At that time, the drug-detection dog sniffed Jardines’s front door and alerted to the presence of narcotics.131 Based on that alert, Miami-Dade police officers received a warrant to search Jardines’s home, inside of which they found marijuana plants.132

Before trial, “Jardines moved to suppress the marijuana plants” on the grounds that the dog sniff of his front door was an unlawful Fourth Amendment “search.”133 The trial court granted Jardines’s motion, but the Florida Third Circuit of Appeal reversed.134 On a petition for discretionary review, the Florida Supreme Court reinstated “the trial court’s decision to suppress” the marijuana plants.135 Florida’s highest court reasoned “that the use of the trained narcotics dog to investigate Jardines’[s] home” was an unlawful Fourth Amendment “search” and therefore the warrant obtained as a result of that investigation was invalid.136

On writ of certiorari, the Supreme Court affirmed the decision of the Florida Supreme Court.137 Departing from *Place* and *Caballes*, the Court held that a dog sniff conducted while physically trespassing onto a constitutionally protected area is a Fourth Amendment “search.”138 It reiterated that the *Katz* Test “has been added to, not substituted for,” the Constitutional Trespass Test.139 It therefore concluded that the sniff of Jardines’s front door was a Fourth Amendment “search” because it occurred while physically trespassing on the curtilage of Jardines’s home.140

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128 Florida v. Jardines, 569 U.S. 1 (2013). During the interim between *Caballes* and *Jardines*, the Supreme Court held that a positive alert by a well-trained drug-detection dog provides law enforcement with probable cause to conduct a Fourth Amendment “search” of a vehicle during a routine traffic stop. Florida v. Harris, 568 U.S. 237, 246–47 (2013). For a definition of probable cause to conduct a Fourth Amendment “search,” see infra note 301.

129 *Jardines*, 569 U.S. at 3.

130 *Id.* at 3–4.

131 *Id.* at 4.

132 *Id.*

133 *Id.* at 4–5.

134 *Id.* at 5.

135 *Id.*

136 *Id.*

137 *Id.* at 12.

138 *Id.* at 5.

139 *Id.* at 11.

140 *Id.* Curtilage is defined as “the area ‘immediately surrounding and associated with the home’” and is considered “part of the home itself for Fourth Amendment purposes.” *Id.* at 6 (quoting Oliver v. United States, 466 U.S. 170, 180 (1984)).
To be clear, *Jardines* is a greater restriction on law enforcement’s use of drug-detection dogs on paper than in practice.\(^{141}\) *Jardines* creates a bright-line rule that a dog sniff conducted while physically trespassing onto a constitutionally protected area is a Fourth Amendment “search.”\(^{142}\) But *Jardines* does nothing to limit law enforcement’s use of dog sniffs conducted during routine traffic stops; those sniffs remain governed by the *Katz* Test, as applied in *Place* and *Caballes*.\(^{143}\) Thus, even after *Jardines*,\(^ {144}\) a dog sniff conducted during a routine traffic stop is not a Fourth Amendment “search” because it discloses only the presence or absence of an illegal substance.\(^ {145}\) Or does it?

### II. Marijuana’s Legality: A Tumultuous History

Marijuana has had its highs and lows in the United States.\(^ {146}\) During the last two centuries, marijuana has gone from being legal nationwide, to being prohibited nationwide, to being legal in thirty-seven states for recreational or medicinal use.\(^ {147}\) This part provides the fascinating history of marijuana’s fluctuating legal status in the United States. In doing so, it illustrates the modern

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\(^{142}\) *Jardines*, 569 U.S. at 5.

\(^{143}\) See supra notes 124–26 and accompanying text.

\(^{144}\) Since *Jardines*, the Supreme Court has decided few cases relating to dog sniffs conducted during routine traffic stops. Most notably, in 2015, the Court held that police officers may not extend an otherwise completed routine traffic stop to conduct a dog sniff, absent reasonable suspicion that criminal activity unrelated to the underlying traffic offense is afoot. *Rodriguez v. United States*, 575 U.S. 348, 357 (2015).


movement among thirty-seven states to legalize marijuana for recreational or medicinal use. It also summarizes a few of those states' laws.

For the better part of the last two hundred years, marijuana was legal for medicinal use in the United States.\textsuperscript{148} Physicians recognized the health benefits of using marijuana during the early nineteenth century.\textsuperscript{149} They routinely prescribed marijuana to treat a myriad of afflictions including tonsillitis, tetanus, typhus, rabies, dysentery, alcoholism, opiate addiction, and insanity.\textsuperscript{150} In 1850, the federal government even placed marijuana “in the highly selective United States Pharmacopoeia drug reference manual,”\textsuperscript{151} the Nation’s “official list of recognized” pharmaceuticals.\textsuperscript{152}

Recreational marijuana usage was also common during the nineteenth century.\textsuperscript{153} At the 1876 World’s Fair in Philadelphia, for example, the Sultan of Turkey set up a tent in which attendees could smoke “marijuana and its derivative hashish” out of water pipes commonly known as hookahs.\textsuperscript{154} The Sultan’s tent was a popular attraction and, reportedly, “the first place visited” by many fairgoers.\textsuperscript{155} Simply put, there was “no social stigma” attached to the use of recreational or medicinal marijuana in the United States during the nineteenth century.\textsuperscript{156}

But that began to change with the turn of the twentieth century.\textsuperscript{157} The early 1900s saw a rise in social reform movements seeking to eliminate “the evils believed to be inherent in substances such as alcohol, opium, and marijuana.”\textsuperscript{158} Prohibition advocates dubbed marijuana as a “killer weed that would infect

\textsuperscript{148} See Zachary Ford, Comment, \textit{Reefer Madness: The Constitutional Consequence of the Federal Government's Inconsistent Marijuana Policy}, 6 Tex. A&M L. Rev. 671, 674 (2019) (“Before the twentieth century, a variety of industries utilized marijuana to treat medical ailments and create products from marijuana’s hemp.” (footnotes omitted)).


\textsuperscript{150} Florence Shu-Acquaye, \textit{The Role of States in Shaping the Legal Debate on Medical Marijuana}, 42 Hamline L. Rev. 697, 704 (2016).


\textsuperscript{153} Fletcher, \textit{supra} note 151, at 987.

\textsuperscript{154} Id.


\textsuperscript{157} Shu-Acquaye, \textit{supra} note 150, at 705.

\textsuperscript{158} Hull, \textit{supra} note 156.
American youth, provoking them to crime and violence.”159 They claimed that marijuana caused insanity and “pushed people toward horrendous acts of criminality.”160 By 1936, forty-eight states had enacted laws restricting the sale and possession of marijuana.161

In turn, Congress passed the Marihuana Tax Act of 1937 (yes, they spelled marijuana with an “h”).162 The Marihuana Tax Act required all buyers, sellers, growers, and importers to purchase a tax stamp in order to legally possess marijuana, effectively creating a de facto prohibition of the substance nationwide.163 As regulations increased, prohibition advocates increased their efforts to vilify the substance.164 One publication warned: “[N]ever let anyone persuade you to smoke even one marijuana cigarette. It is pure poison.”165 In 1942, the federal government removed marijuana from the United States Pharmacopeia.166 By 1969, only twelve percent of United States residents supported legalizing marijuana.167

That same year, the United States Supreme Court held that several provisions of the Marihuana Tax Act were unconstitutional under the Self-Incrimination Clause of the Fifth Amendment.168 Accordingly, in 1970, Congress replaced the Marihuana Tax Act with the Controlled Substances Act (CSA).169 The CSA created a system of classifying all controlled substances into one of five schedules “based on the medicinal value, harmfulness, and potential for abuse” of the particular substance.170 Schedule I substances are those that have a high potential for abuse, no currently accepted medical use in treatment in the United States, and a lack of accepted safety for use of the drug or other substances under medical supervision.171 The CSA classified marijuana as a Schedule I controlled substance.172

159 Bilz, supra note 152, at 119.
160 Shu-Acquaye, supra note 150, at 706 (alteration in original) (internal quotation marks omitted).
161 Id.
162 Id. at 706–07.
163 Hull, supra at 156.
165 Id.
166 Shu-Acquaye, supra note 150, at 706.
169 Hull, supra note 156, at 138.
170 Id.
172 Id.
Despite the CSA, the general public’s opinion of marijuana began to change—again.\footnote{Shu-Acquaye, \textit{supra} note 150, at 710.} The same year Congress enacted the CSA, legalization advocates founded the National Organization for the Reform of Marijuana Laws “to give a voice to those Americans who opposed marijuana prohibition.”\footnote{\textit{Id.}} Throughout the 1970s, that organization “led successful efforts to decriminalize minor marijuana offenses in eleven states and greatly reduce penalties in others.”\footnote{\textit{Id.}} It also fought, unsuccessfully, to reclassify marijuana as a Schedule V substance under the CSA.\footnote{\textit{Id.} at 710–11. Schedule V substances are those that: (A) have “a low potential for abuse relative to the drugs or other substances in schedule IV”; (B) have “a currently accepted medical use in treatment in the United States”; and (C) “lead to limited physical dependence or psychological dependence relative to the drugs or other substances in schedule IV.” 21 U.S.C. § 812(b)(5).} By 1979, twenty-five percent of United States residents supported legalizing marijuana.\footnote{2019 Pew Research Center’s American Trends Panel, \textit{supra} note 146.} That percentage, however, remained consistent throughout the 1980s.\footnote{\textit{Id.}}

But the movement to (re)legalize marijuana rekindled in the 1990s.\footnote{See Shu-Acquaye, \textit{supra} note 150, at 728 (explaining that between 1991 and 2008 the percentage of United States residents who supported legalizing marijuana rose from twenty-two percent to forty-three percent).} In 1996, California enacted Proposition 215, becoming the first state in the country to legalize marijuana for medicinal use.\footnote{\textit{Id.} at 749.} Proposition 215 made it legal for a seriously ill “patient or a patient’s caregiver, upon the recommendation or approval of a physician, [to] possess or cultivate marijuana” for medicinal use.\footnote{\textit{Id.} at 744–45.} In 1998, Alaska, Oregon, and Washington enacted medical marijuana legislation similar to Proposition 215—despite former Presidents Ford, Carter, and H.W. Bush urging voters to reject marijuana legalization.\footnote{\textit{A Historical Timeline: The History of Marijuana as Medicine from 2900 B.C. to Present, ProCON.org} (Dec. 4, 2020), www.medicalmarijuana.procon.org/historical-timeline/ [https://perma.cc/2PR6-XBKJ].} Maine, in turn, became the fifth state to legalize medicinal marijuana the following year.\footnote{\textit{Id.}}

Soon after, tension grew between the federal government’s prohibition of marijuana and the state laws legalizing the substance for medicinal use.\footnote{\textit{Id.}} The short of it is that Article Six, Section Two of the United States Constitution—

\begin{footnotes}
\footnote{Shu-Acquaye, \textit{supra} note 150, at 710.}
\footnote{\textit{Id.}}
\footnote{\textit{Id.}}
\footnote{\textit{Id.} at 710–11. Schedule V substances are those that: (A) have “a low potential for abuse relative to the drugs or other substances in schedule IV”; (B) have “a currently accepted medical use in treatment in the United States”; and (C) “lead to limited physical dependence or psychological dependence relative to the drugs or other substances in schedule IV.” 21 U.S.C. § 812(b)(5).}
\footnote{2019 Pew Research Center’s American Trends Panel, \textit{supra} note 146.}
\footnote{\textit{Id.}}
\footnote{See Shu-Acquaye, \textit{supra} note 150, at 728 (explaining that between 1991 and 2008 the percentage of United States residents who supported legalizing marijuana rose from twenty-two percent to forty-three percent).}
\footnote{\textit{Id.} at 749.}
\footnote{\textit{Id.} at 744–45.}
\footnote{\textit{A Historical Timeline: The History of Marijuana as Medicine from 2900 B.C. to Present, ProCON.org} (Dec. 4, 2020), www.medicalmarijuana.procon.org/historical-timeline/ [https://perma.cc/2PR6-XBKJ].}
\footnote{\textit{Id.}}
\footnote{\textit{Id.}}
\footnote{\textit{Id.} at 738.}
\end{footnotes}
known as the Supremacy Clause\textsuperscript{186}—prohibits states from enacting laws that “interfere with the operation of the laws enacted by the federal government.”\textsuperscript{187} This created conflict between the federal and state governments because the federal government retained the power to prosecute individuals who lawfully possess, distribute, or prescribe medical marijuana under state law.\textsuperscript{188}

And during the early twenty-first century, the federal government chose to exercise that power.\textsuperscript{189} The George W. Bush Administration, for example, “raided hundreds of medical marijuana dispensaries and threatened to derail the careers of physicians who recommended marijuana to their patients.”\textsuperscript{190} Undeterred by the federal government’s response, eight additional states—Colorado, Hawaii, Montana, Rhode Island, Michigan, Nevada, New Mexico, and Vermont—legalized medicinal marijuana between 2000 and 2008.\textsuperscript{191}

In 2009, the Obama Administration decided to take a different approach.\textsuperscript{192} In October 2009, United States Deputy Attorney General David Ogden sent a memorandum to federal prosecutors, encouraging them to refrain from prosecuting individuals who act “in clear and unambiguous compliance with existing state laws providing for the medical use of marijuana.”\textsuperscript{193} Deputy Attorney General Ogden, however, made clear that marijuana remained illegal under the CSA and that the memorandum’s purpose was simply to guide prosecutors in exercising their “prosecutorial discretion.”\textsuperscript{194} That year, forty-four percent of United States residents supported legalizing marijuana.\textsuperscript{195}

Facing less federal backlash, the movement to (re)legalize marijuana boomed in the 2010s.\textsuperscript{196} Between 2010 and 2012, Arizona, Delaware, Connecticut,

\textsuperscript{186} U.S. Const. art. VI, § 2.
\textsuperscript{187} Shu-Acquaye, \textit{supra} note 150, at 738.
\textsuperscript{188} \textit{Id.} at 739.
\textsuperscript{189} See Robert A. Mikos, \textit{A Critical Appraisal of the Department of Justice’s New Approach to Medical Marijuana}, 22 Stan. L. \\ & Pol’y Rev. 633, 638 (2011) (noting that during the George W. Bush Administration the Drug Enforcement Administration “conducted nearly two hundred raids on medical marijuana dispensaries in California alone, and it warned landlords that it would seize their property if they did not immediately evict marijuana-dispensing tenants” (footnote omitted)).
\textsuperscript{190} Shu-Acquaye, \textit{supra} note 150, at 738. The Clinton Administration likewise “campaigned forcefully” against state medical marijuana programs. \textit{Id.}
\textsuperscript{191} A Historical Timeline, \textit{supra} note 182.
\textsuperscript{192} Shu-Acquaye, \textit{supra} note 150, at 739.
\textsuperscript{194} \textit{Id.} at 2–3.
\textsuperscript{195} 2019 Pew Research Center’s American Trends Panel, \textit{supra} note 146.
\textsuperscript{196} See \textit{id.} (illustrating that between 2009 and 2019 the percentage of United States residents who supported legalizing marijuana for recreational use rose from forty-four percent to sixty-seven percent).
the District of Columbia, New Jersey, and Massachusetts legalized medicinal marijuana. In 2012, Colorado and Washington, deciding to take things a step further, became the first two states to legalize marijuana for recreational use.

Colorado’s Amendment 64, for example, legalized the recreational purchase and possession of up to one ounce of marijuana for individuals twenty-one years of age and older. It did not, however, legalize using marijuana in public, selling marijuana without a license, or purchasing marijuana from an unlicensed party. Similarly, Washington’s Initiative 502 legalized recreational marijuana possession and use by individuals twenty-one years of age and older, and outlawed certain marijuana-related activities.

Shortly after Colorado and Washington legalized recreational marijuana, the Obama Administration sent federal prosecutors another memorandum. United States Deputy Attorney General James Cole advised prosecutors to refrain from prosecuting individuals who cultivate, distribute, sell, or possess recreational marijuana in compliance with state laws legalizing those activities. He reiterated that marijuana remained illegal under the CSA and that the memorandum’s purpose was simply to encourage “prosecutorial discretion.” In 2012, forty-eight percent of United States residents supported legalizing marijuana.

Today, the movement to (re)legalize marijuana is at an all-time high. In November 2019, an overwhelming ninety-one percent of United States residents supported legalizing marijuana for recreational or medicinal use. Only

197 A Historical Timeline, supra note 182.
200 Colo. Const. art. XVIII, § 16; Graham, supra note 199.
203 Id. at 3.
204 Id. at 3–4.
205 2019 PEW RESEARCH CENTER’S AMERICAN TRENDS PANEL, supra note 146.
206 Daniller, supra note 146.
207 Id.
eight percent of residents supported a complete prohibition of the substance.\footnote{208} Tracking with that support, thirty-seven states have legalized marijuana for medicinal use.\footnote{209} Sixteen of those states have also legalized marijuana for recreational use.\footnote{210} More than 207 million United States residents—nearly two thirds of the country’s population—now live in a state that has legalized recreational or medicinal marijuana.\footnote{211} Nevertheless, marijuana remains a Schedule I substance under the CSA.\footnote{212}

III. DOGS & THE FOURTH AMENDMENT REDUX

This part closely reexamines the Fourth Amendment’s treatment of dog sniffs conducted during routine traffic stops. Section A illustrates that at least two lower courts have begun to consider the effect that the legalization of marijuana has on the Fourth Amendment principles governing dog sniffs conducted during routine traffic stops.\footnote{213} Building on those decisions, Section B makes two arguments.\footnote{214} First, it contends that a dog sniff conducted during a routine traffic stop is a nonbinary type of investigative technique in the thirty-seven states that have legalized marijuana for recreational or medicinal use.\footnote{215} Second, it asserts that a dog sniff conducted during a routine traffic stop is a Fourth Amendment “search” in those thirty-seven states.\footnote{216}

A. Re: The “Binary” Dog

This section identifies two lower courts that have considered whether a dog sniff conducted during a routine traffic stop is a Fourth Amendment “search” in

\footnote{208} Id.

\footnote{209} State Medical Marijuana Laws, \textit{supra} note 18. As of 2020, the thirty-seven states that have legalized marijuana for medicinal use are Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Hawaii, Illinois, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Virginia, Washington, and West Virginia. Id.

\footnote{210} Id. As of 2020, the sixteen states that have legalized marijuana for recreational use are Alaska, Arizona, California, Colorado, District of Columbia, Illinois, Maine, Massachusetts, Michigan, Montana, Nevada, New Jersey, Oregon, South Dakota, Vermont, and Washington. Id.


\footnote{212} 21 U.S.C. § 812(c); see also Jared L. Hausmann, \textit{Sex, Drugs, and Due Process: Justice Kennedy’s New Federalism as a Framework for Marijuana Liberalization}, 53 \textit{U. LOUISVILLE L. REV.} 271, 279 (2015) (noting that marijuana remains illegal under the CSA, “along with drugs like heroin and lysergic acid diethylamide (LSD)”).

\footnote{213} See infra Section III.A.

\footnote{214} See infra Section III.B.

\footnote{215} See infra Section III.B.

\footnote{216} See infra Section III.B.
states that have legalized marijuana for recreational or medicinal use. Implicit in that question, this section demonstrates, is the threshold inquiry of whether a dog sniff is a binary type of investigative technique in states that have legalized recreational or medicinal marijuana.

In recent years, lower courts have begun to reexamine modern Fourth Amendment jurisprudence as it pertains to law enforcement’s use of drug-detection dogs. Among those lower courts, at least two have considered whether a dog sniff conducted during a routine traffic stop is a Fourth Amendment “search” in states that have legalized recreational or medicinal marijuana.

Consider first State v. Souza, decided by the Washington Court of Appeals in 2017. In Souza, Sergeant Loren Culp was performing “routine traffic patrol” when he observed a grey truck driving over the speed limit. Sergeant Culp stopped the truck, identified its driver as Jon Souza, and arrested Souza for driving with a suspended license and failing to transfer vehicle title.

After arresting Souza, Sergeant Culp retrieved his drug-detection dog, Isko, from his patrol vehicle. Isko was trained “to detect the presence of

217 For instance, a number of lower courts have considered whether the odor of marijuana provides probable cause to conduct a Fourth Amendment “search” in states that have legalized recreational or medicinal marijuana or decriminalized the substance. See, e.g., United States v. White, 732 F. App’x 597, 598 (9th Cir. 2018) (unpublished table opinion) (holding that, although Nevada has legalized marijuana for medicinal use, the odor of marijuana provides probable cause to conduct a warrantless “search” of a vehicle because the possession of nonmedical marijuana remains “a state crime”); State v. Sisco, 373 P.3d 549, 553 (Ariz. 2016) (“Notwithstanding [the Arizona Medical Marijuana Act], the odor of marijuana in most circumstances will warrant a reasonable person believing there is a fair probability that contraband or evidence of a crime is present.”); People v. Strasburg, 56 Cal. Rptr. 3d 306, 311 (Cal. Ct. App. 2007) (holding that, although marijuana is legal for medicinal use in California, the odor of marijuana provides police officers with probable cause to “search” a vehicle so that they may determine whether the occupant is abiding by state law), modified, (Apr. 3, 2007); Johnson v. State, 275 So.3d 800, 802 (Fla. Dist. Ct. App. 2019) (concluding that the odor of marijuana provides probable cause to conduct a warrantless “search” of a vehicle regardless of “whether or not Florida law allows the medical use of marijuana in some circumstances”); State v. Seckinger, 920 N.W.2d 842, 850 (Neb. 2018) (noting that, “[e]ven among states that have passed laws allowing medical or recreational marijuana use, many courts continue to recognize that marijuana is contraband and that the odor of marijuana can provide probable cause to search a vehicle”); Robinson v. State, 152 A.3d 661, 686–87 (Md. 2017) (holding “that a law enforcement officer has probable cause to search a vehicle where the law enforcement officer detects an odor of marijuana emanating from the vehicle, as marijuana in any amount remains contraband, notwithstanding the decriminalization of possession of less than ten grams of marijuana”). The question of whether the odor of marijuana provides probable cause to conduct a Fourth Amendment “search” in states that have legalized recreational or medicinal marijuana or decriminalized the substance is outside the scope of this article.


Id. at *1–2.

Id. at *2.
marijuana, heroin, methamphetamine, crack cocaine, cocaine, and ecstasy,” including miniscule amounts of those substances. Isko, however, was unable to communicate which particular substance he detected or whether the substance that he detected was in a measurable quantity. Sergeant Culp walked Isko around Souza’s truck, and Isko gave a positive alert. Based on that alert, Sergeant Culp received a warrant to search the truck. Inside, he found methamphetamine and three pipes used to smoke methamphetamine.

Prior to trial, Souza moved to suppress the methamphetamine and drug paraphernalia found inside his truck, arguing that Isko’s sniff was “an unlawful search.” The trial court denied Souza’s motion and admitted the evidence. It conducted a bench trial and found “Souza guilty of possession of a controlled substance, possession of drug paraphernalia, and driving with a suspended license.” Following his convictions, Souza appealed the court’s denial of his suppression motion.

On appeal, Souza once again argued that the evidence found in his truck was inadmissible because Isko’s sniff “unreasonably intruded in his privacy interest in his truck.” The Washington Court of Appeals disagreed. Relying on Caballes, the court began by noting that, “[a]ccording to federal law, a dog smell does not constitute a search under the United States Constitution’s Fourth Amendment.” It explained, however, that the Washington Constitution “generally provides greater protection to persons . . . than the Fourth Amendment” because the Washington Constitution “clearly recognizes an individual’s right to privacy with no express limitations.”

Under the Washington Constitution, the court further explained, a dog sniff is not a search “[a]s long as the canine sniffs an object from an area where the

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222 Id. Notably, “[t]he State of Washington trained and certified Isko for law enforcement work before the effective date of Initiative 502 . . . .” Id.
223 Id.
224 Id.
225 Id.
226 Id.
227 Id.
228 Id.
229 Id. at *3. The trial court “dismissed, for insufficient evidence, the charge of failure to transfer a vehicle title.” Id.
230 Id.
231 Id. at *5.
232 Id.
233 Id. at *4.
234 Id.
defendant lacks a reasonable expectation of privacy and the canine is minimally intrusive . . . .” Tracking with that framework, the court reasoned that Isko’s sniff of Souza’s truck was not a search because Souza had no reasonable expectation of privacy in the air outside of his vehicle. The court added that Isko’s sniff was minimally intrusive because “Isko merely sauntered around the vehicle.” For those reasons, the court held that Isko’s sniff was neither a Fourth Amendment “search” nor a search under the Washington Constitution.

Next, consider People v. McKnight, decided by the Colorado Supreme Court in 2019. In McKnight, Craig Police Officer Bryan Gonzales observed a truck “facing the wrong way in a one-way alley near an apartment complex.” Officer Gonzalez followed the truck as it drove to and parked outside of a residence known to be associated with narcotics activity. Fifteen minutes later, the truck drove away from the residence, and Officer Gonzalez followed in pursuit. Officer Gonzalez then observed the truck make an illegal turn, at which time he initiated a traffic stop and identified the driver as Kevin McKnight.

During the stop, Sergeant Courtland Folks arrived at the scene with his drug-detection dog, Kilo. Kilo was trained to detect “marijuana, methamphetamine, cocaine, heroin, and ecstasy,” though he was unable to communicate which “particular substance or amount of the substance” he detected. Sergeant Folks walked Kilo around McKnight’s truck, and “Kilo quickly alerted” to the presence of a controlled substance. Based on Kilo’s alert, Officer Gonzalez and Sergeant Folks searched the truck and found a pipe containing methamphetamine residue.

Before trial, McKnight moved to suppress the evidence found in his truck. McKnight argued that Kilo’s sniff was an unlawful search under both the Fourth

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235 Id.
236 Id.
237 Id. at *5.
238 Id.
239 People v. McKnight, 2019 CO 36, 446 P.3d 397 (Colo. 2019).
240 Id. at ¶ 10, 446 P.3d at 400.
241 Id.
242 Id.
243 Id.
244 Id.
245 Id.
246 People v. McKnight, 2019 CO 93, ¶ 9, 452 P.3d 82, 85 (Colo. App. 2017), aff’d, McKnight, 2019 CO 36, 446 P.3d 397 (Colo. 2019).
247 McKnight, at ¶ 13, 446 P.3d at 400 (internal quotations omitted).
248 Id.
249 Id.
Amendment of the United States Constitution and Article II, Section 7 of the Colorado Constitution. He reasoned that Kilo was trained to detect marijuana, which is a legal substance in Colorado. The trial court denied McKnight’s motion, reasoning that “possession of marijuana remains illegal under many circumstances in Colorado and is categorically illegal under federal law.” McKnight was later found guilty of “possession of a controlled substance and possession of drug paraphernalia.” The Colorado Court of Appeals, however, unanimously held “that the trial court erred in denying McKnight’s motion to suppress” and “reversed McKnight’s convictions.”

On writ of certiorari, the Colorado Supreme Court considered whether Kilo’s sniff was a search under the Fourth Amendment or Colorado Constitution. Beginning with the Fourth Amendment, the court provided a thorough discussion of the United States Supreme Court precedent governing drug-detection dogs. It explained that “Caballes . . . did not address the effect of a state law legalizing marijuana on the question of whether a resident of the state would have a legitimate expectation of privacy in lawful possession of marijuana.” Nevertheless, it concluded that, “arguably, Kilo’s sniff was not a search under the U.S. Supreme Court’s interpretation of the Fourth Amendment in Caballes” because marijuana remains categorically illegal under federal law.

After reaching that conclusion, the court considered whether Kilo’s sniff was a search under the Colorado Constitution. Answering that question in the affirmative, the court held that a dog sniff conducted during a routine traffic stop is a search under the Colorado Constitution. It explained that, in light of Amendment 64, Colorado citizens have a reasonable expectation of privacy in possessing marijuana, just as they do in possessing other regulated items:

Marijuana is now treated like guns, alcohol, and tobacco—while possession of these items is lawful under some circumstances, it remains unlawful under others. Although possession of guns,
alcohol, and tobacco can be unlawful, persons still maintain an expectation of privacy in lawfully using or consuming those items. The same now goes for marijuana: In legalizing marijuana for adults twenty-one and older, Amendment 64 expanded the protections of [Colorado's Constitution] to provide a reasonable expectation of privacy to engage in the lawful activity of possessing marijuana in Colorado.\textsuperscript{261}

Because “a sniff from a dog trained to detect marijuana (in addition to other substances) can reveal lawful activity,” the court reasoned that such a sniff violates an individual’s reasonable expectation of privacy.\textsuperscript{262} It therefore concluded that Kilo’s sniff was a search under the Colorado Constitution.\textsuperscript{263}

\textit{Souza} and \textit{McKnight} illustrate that lower courts have begun reexamining the Fourth Amendment’s treatment of dog sniffs conducted during routine traffic stops. Both cases raise the question of whether a dog sniff conducted during a routine traffic stop is a Fourth Amendment “search” in states that have legalized marijuana for recreational or medicinal use. Implicit in that question is the threshold inquiry of whether a dog sniff conducted during a routine traffic stop remains a binary type of investigative technique in states that have legalized recreational or medicinal marijuana. As we will see, though, neither \textit{Souza} nor \textit{McKnight} provide answers to those questions that holistically align with modern Fourth Amendment jurisprudence.

\textbf{B. The (Non)Binary Dog}

In response to \textit{Souza} and \textit{McKnight}, this section makes two arguments. First, it asserts that a dog sniff conducted during a routine traffic stop is a nonbinary type of investigative technique in the thirty-seven states that have legalized marijuana for recreational or medicinal use. Second, it contends that a dog sniff conducted during a routine traffic stop is a Fourth Amendment “search” in states that have legalized marijuana for recreational or medicinal use. It makes both arguments by examining \textit{Souza} and \textit{McKnight} against the backdrop of modern Fourth Amendment jurisprudence.

In \textit{Souza}, the Washington Court of Appeals reached two erroneous conclusions. First, the court erred in characterizing a dog sniff during a routine

\textsuperscript{261} \textit{Id.} at ¶ 42, 446 P.3d at 408 (internal citations omitted).

\textsuperscript{262} \textit{Id.} at ¶ 48, 446 P.3d at 410.

\textsuperscript{263} \textit{Id.} The court further held “that a dog sniff . . . must be supported by probable cause and justified under an exception to the warrant requirement, such as the automobile exception.” \textit{Id.} at ¶ 55, 446 P.3d at 412. The level of suspicion needed to conduct a dog sniff in states that have legalized marijuana for recreational or medicinal use is outside the scope of this article.
traffic stop as a “minimally intrusive” form of investigation in Washington. The United States Supreme Court has stressed that a dog sniff is a minimally intrusive—i.e., binary—type of investigative technique only when it is incapable of revealing lawful activity. Marijuana is legal for recreational and medicinal use in Washington. Isko was trained to alert to marijuana at the time he sniffed Souza’s truck. Accordingly, Isko was capable of revealing lawful activity in Washington. Isko’s sniff was therefore not minimally intrusive; rather, it was a nonbinary type of investigative technique.

Second, the Souza court erred in concluding that a dog sniff conducted during a routine traffic stop fails to implicate Fourth Amendment protection in Washington. The court’s reliance on Caballes for the per se rule that a dog sniff is not a Fourth Amendment “search” is an overbroad characterization of modern Fourth Amendment jurisprudence. In the context of routine traffic stops, a dog sniff is not a Fourth Amendment “search” so long as it is capable only of revealing “the location of a substance that no individual has any right to possess . . . .” Again, Isko was trained to alert to marijuana, a substance that certain individuals have a right to possess under Washington law. Isko’s sniff was therefore a Fourth Amendment “search.”

By contrast, the Colorado Supreme Court’s decision in McKnight more closely aligns with modern Fourth Amendment jurisprudence established by the United States Supreme Court. The McKnight court correctly concluded that a dog sniff conducted during a routine traffic stop is a nonbinary type of

265 See, e.g., Illinois v. Caballes, 543 U.S. 405, 410 (2005) (reasoning that a dog sniff conducted during a routine traffic stop is minimally intrusive because it detects only the presence of an illegal substance, in which there exists no reasonable expectation of privacy); United States v. Place, 462 U.S. 696, 707 (1983) (explaining that a dog sniff is minimally intrusive because “[i]t does not expose noncontraband items that otherwise would remain hidden from public view”).
268 Id.
269 Id. Less generously, the Souza Court’s per se rule that a “dog smell” is not a Fourth Amendment “search” is flat out wrong. Id. A dog sniff conducted while physically trespassing on a constitutionally protected area is a Fourth Amendment “search.” Florida v. Jardines, 569 U.S. 1, 4 (2013).
270 Caballes, 543 U.S. at 410 (emphasis added); cf. City of Indianapolis v. Edmond, 531 U.S. 32 (2000) (explaining that a dog sniff of a vehicle stopped at a highway checkpoint is not a Fourth Amendment “search” because it is incapable of detecting lawful activity); Place, 462 U.S. at 707 (1983) (holding that a dog sniff of luggage is not a Fourth Amendment “search” because it discloses only the presence or absence of contraband).
investigative technique in Colorado. The McKnight court reasoned that certain individuals have a reasonable expectation of privacy in possessing marijuana in Colorado, just as they do in possessing guns, alcohol, and tobacco. Accordingly, as the McKnight court recognized, a dog trained to detect marijuana is capable of revealing lawful activity in Colorado. Kilo was trained to detect marijuana. Thus, Kilo’s sniff was a nonbinary type of investigative technique.

Nonetheless, the McKnight court mistakenly concluded that a dog sniff conducted during a routine traffic stop is not a Fourth Amendment “search” in Colorado. In reaching that conclusion, the McKnight court misinterpreted the Supreme Court precedent governing law enforcement’s use of drug-detection dogs in the context of routine traffic stops. The Colorado Supreme Court reasoned that, notwithstanding Amendment 64, a dog sniff conducted during a routine traffic stop is “arguably” not a Fourth Amendment “search” in Colorado because marijuana remains illegal under federal law. In Caballes, however, the United States Supreme Court held that a dog sniff conducted during a routine traffic stop is not a Fourth Amendment “search” so long as it is capable of revealing only the location of an illegal substance.

In Colorado, a dog sniff conducted during a routine traffic stop is capable of revealing the location of a substance that certain individuals have a right to possess. The McKnight court acknowledged that Amendment 64 gives certain individuals a right to possess marijuana for recreational use. The court also accurately noted that drug-detection dogs are incapable of distinguishing between lawfully possessed marijuana and unlawfully possessed marijuana. As a result, a dog sniff conducted during a routine traffic stop is capable of revealing the location of a potentially lawful substance in Colorado. Again, Kilo was trained to alert to marijuana, among other substances. Kilo’s sniff, therefore, constituted a Fourth Amendment “search.”

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274 Id. at ¶ 42, 446 P.3d at 408.
275 Id.
276 Id. at ¶ 7, 446 P.3d at 400.
277 Id. at ¶ 37, 446 P.3d at 406.
278 Id.
279 Id.
281 Colo. Const. art. XVIII, § 16.
282 McKnight, at ¶¶ 41–43, 446 P.3d at 408.
283 Id. at ¶ 47, 446 P.3d at 410.
284 Colo. Const. art. XVIII, § 16 (legalizing marijuana for recreational use by certain individuals in Colorado).
285 McKnight, at ¶ 6, 446 P.3d at 399–400.
From a broader perspective, the above examination of *Souza* and *McKnight* leads to two conclusions that are equally applicable in every state that has legalized marijuana for recreational or medicinal use. First, drug-detection dogs are no longer a binary type of investigative technique in the context of routine traffic stops. The reason is that they are capable of disclosing lawful activity. Thus, a dog sniff conducted during a routine traffic stop is a nonbinary type of investigative technique in the thirty-seven states that have legalized marijuana for recreational or medicinal use.

Second, a dog sniff conducted during a routine traffic stop is a Fourth Amendment “search” in states that have legalized marijuana for recreational or medicinal use. Under modern Fourth Amendment jurisprudence, a dog sniff conducted during a routine traffic stop is not a Fourth Amendment “search” so long as it is capable of revealing only the location of a substance that no individual has any right to possess. In states that have legalized marijuana, certain individuals have a right to possess marijuana under state law. Moreover, drug-detection dogs are incapable of distinguishing between a potentially legal substance and one that is categorically illegal. To the contrary, they exhibit the same alert regardless of the substance they sniff.

In *People v. Gadberry*, a companion case decided alongside *McKnight*, the Colorado Supreme Court put it best: “Marijuana isn’t meth. But drug-detection dog Talu can’t tell the difference. So when Talu alerted to the driver and passenger side doors of Amanda Gadberry’s truck, the officers didn’t know whether Talu had found marijuana, which is legal in some circumstances in Colorado, or meth,”

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286 It is worth noting that in some contexts drug-detection dogs likely remain a binary type of investigative technique in states that have legalized marijuana for recreational or medicinal use. See infra notes 332–35 and accompanying text.

287 See sources cited supra notes 11, 126 and accompanying text.

288 See illinois v. Caballes, 543 U.S. 405, 410 (2005); cf. Kyllo v. United States, 533 U.S. 27, 38–40 (2001) (holding that the use of a thermal-imaging device “to explore details of the home that would previously have been unknowable without physical intrusion” is a Fourth Amendment “search” if the device is capable of detecting lawful activity and not in “general public use”); City of Indianapolis v. Edmond, 531 U.S. 32, 40 (2000) (concluding that a dog sniff of a vehicle stopped at a highway checkpoint is not a Fourth Amendment “search” because it discloses no “information other than the presence or absence of narcotics”); United States v. Jacobsen, 466 U.S. 109, 123 (1984) (“[G]overnmental conduct that can reveal whether a substance is cocaine, and no other arguably ‘private’ fact, compromises no legitimate privacy interest.”); United States v. Place, 462 U.S. 696, 707 (1983) (holding that a dog sniff of luggage is not a Fourth Amendment “search” because “it discloses only the presence or absence of narcotics, a contraband item”).

289 State Medical Marijuana Laws, supra note 18.

290 See Katz & Golembiewski, supra note 12, at 754 (“[I]t is not possible for a dog to distinguish the scent of all contraband from otherwise legal substances. Heroin is a derivative of opium. The odor in heroin which alerts the dog is acetic acid, a common substance used in pickles and certain glues.”).

291 Id.
which never is.” 292 In sum, then, a dog sniff conducted during a routine traffic stop is a Fourth Amendment “search” in the thirty-seven states that have legalized marijuana for recreational or medicinal use.

IV. NONBINARY DOGS & LAW ENFORCEMENT

The legalization of marijuana has fundamentally altered the application of modern Fourth Amendment jurisprudence to dog sniffs conducted during routine traffic stops.293 This part explores the resulting, downstream impact on the law enforcement profession. Section A argues that law enforcement agencies operating in states that have legalized marijuana for recreational or medicinal use must retrain their drug-detection dogs to be incapable of revealing the location of marijuana or replace their drug-detection dogs with those that are incapable of the same.294 Section B demonstrates the financial and administrative obstacles that law enforcement agencies will face as they replace and retrain their drug-detection dogs.295 Section B also provides law enforcement agencies with ways to mitigate those challenges.296

A. Out with the Nonbinary

The United States Supreme Court has long recognized “the virtue of providing ‘clear and unequivocal guidelines to the law enforcement profession.’”297 The Court has reasoned that the Fourth Amendment’s protections “can only be realized if the police are acting under a set of rules which, in most instances, makes it possible to reach a correct determination beforehand as to whether an invasion of privacy is justified in the interest of law enforcement.”298

In that spirit, this section seeks to provide the law enforcement profession with a clear constitutional path forward. It argues that law enforcement agencies

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293 See supra Part III.

294 See infra Section IV.A.

295 See infra Section IV.B.

296 See infra Section IV.B.


operating in states that have legalized marijuana for recreational or medicinal use must retrain their drug-detection dogs to be incapable of revealing the location of marijuana or replace their drug-detection dogs with those that are incapable of the same.

One cardinal principle of the Fourth Amendment is that a warrantless “search” is presumptively unlawful “subject only to a few specifically established and well-delineated exceptions.”\(^{299}\) Typically, these exceptions justify a warrantless Fourth Amendment “search” only when there exists some level of suspicion of criminal activity,\(^{300}\) such as probable cause\(^{301}\) or reasonable suspicion.\(^{302}\) Absent consent,\(^{303}\) no well-established exception to the Fourth Amendment’s warrant requirement justifies a suspicionless vehicular “search” during a routine traffic stop.\(^{304}\)

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300. See, e.g., Acevedo, 500 U.S. at 580 (automobile exception, probable cause); Minnesota v. Olson, 495 U.S. 91, 100 (1990) (exigent circumstances, probable cause); United States v. Robinson, 414 U.S. 218, 235 (1973) (search incident to arrest, suspicionless so long as the underlying arrest is based on probable cause); Colorado v. Bertine, 479 U.S. 367, 371 (1987) (inventory searches, suspicionless); Terry v. Ohio, 392 U.S. 1, 30–31 (1968) (stop and (perhaps) frisk, the first of which requires reasonable suspicion to believe criminal activity is afoot and the second of which requires reasonable suspicion to believe the individual is armed and dangerous).

301. Probable cause to conduct a Fourth Amendment “search” exists when there is “a fair probability that contraband or evidence of a crime will be found” in the area to be searched. Illinois v. Gates, 462 U.S. 213, 238 (1983).

302. Reasonable suspicion is a less demanding standard than probable cause, requiring “something more than an inchoate and unparticularized suspicion or hunch.” United States v. Sokolow, 490 U.S. 1, 7 (1989) (quoting Terry, 392 U.S. at 21).

303. Schneckloth v. Bustamonte, 412 U.S. 218, 219 (1973) (“It is . . . well settled that one of the specifically established exceptions to the requirements of both a warrant and probable cause is a search that is conducted pursuant to consent.”).

304. See, e.g., Florida v. Royer, 460 U.S. 491, 499 (1983) (explaining that, absent probable cause, “police may not carry out a full search of the person or of his automobile or other effects”); Almeida-Sanchez v. United States, 413 U.S. 266, 273 (1973) (clarifying that, “[i]n the absence of probable cause or consent,” a warrantless search of a vehicle is unlawful under the Fourth Amendment); cf. Arizona v. Gant, 556 U.S. 1, 7 (2009) (holding that the police “may search a vehicle incident to a recent occupant's arrest if the arrestee is within reaching distance of the passenger compartment at the time of the search or it is reasonable to believe the vehicle contains evidence of the offense of arrest”); Acevedo, 500 U.S. at 580 (holding that the police may conduct a warrantless “search” of a vehicle and its containers where there is “probable cause to believe contraband or evidence is contained”); Bertine, 479 U.S. at 371 (holding that the police may warrantlessly “search” a vehicle in police custody so long as the “search” is conducted pursuant to "reasonable police regulations relating to inventory procedures administered in good faith . . . "); Michigan v. Long, 463 U.S. 1032, 1049 (1983) (holding that a police officer may warrantlessly search "the passenger compartment of an automobile, limited to those areas in which a weapon may be placed or hidden," when the officer has reasonable suspicion to believe that an occupant “is dangerous . . . and may gain immediate control of weapons”). See generally Bradley, supra note 39, at 1474 (listing and describing the exceptions to the warrant requirement).
Considering these Fourth Amendment principles, scholars have previously questioned whether the legalization of marijuana would require law enforcement agencies to retrain or replace their drug-detection dogs.305 In recent years, many law enforcement agencies have begun considering the same question.306 Some agencies have sought answers from the legal community.307 Others have reached answers of their own.308 Consider two illustrative examples, one from Colorado and the other from New York.309

305 See, e.g., Alex Kreit, Marijuana Legalization and Pretextual Stops, 50 U.C. DAVIS L. REV. 741, 770 (2016) (discussing "the potential of marijuana legalization laws to impact street-level policing"); Ben Adams, Note, What Is Fourth Amendment Contraband?, 69 STAN. L. REV. 1137, 1195 (2017) (concluding that, "if marijuana becomes legitimate to possess . . . [p]olice dogs already trained to detect marijuana will have to be either retrained or replaced because the police would no longer be assured in advance that an alert from those dogs indicates only contraband"); Lindsay N. Zanello, Note, To Sniff or Not to Sniff: Making Sense of Past and Recent State and Federal Decisions in Connection with Drug-Detection Dogs—Where Do We Go from Here?, 78 ALB. L. REV. 1569, 1603 (2015) (commenting that, in states that have legalized marijuana, law enforcement agencies will have to show that "[a] dog was effectively retrained to not alert to a drug that is no longer illegal").

306 David Ferland, executive director of the United States Police Canine Association, has stated that "[a]lmost every state" is considering the impact that legalized marijuana will have on law enforcement’s use of drug-detection dogs. Matthew Russell, Here’s Why Hundreds of Drug-Sniffing Dogs are Headed Toward Early Retirement, THE ANIMAL RESCUE SITE BLOG, blog.theanimalrescuesite.greatergood.com/drug-dogs/ (last visited Nov. 19, 2020) [https://perma.cc/F9Y2-BWCW].


308 See, e.g., Pete Sherman, Cannabis Sniffing Dogs Staying Around: An Illinois K-9 Trainer, Skilled Enough to Also Train a Drug-Sniffing Pig, Discusses the World of Detection Dogs, 108 ILL. B.J. 10, 11 (2020) (commenting that some Illinois law enforcement officials have started training their drug-detection dogs to ignore the odor of marijuana); Yessenia Renee Medrano-Vossler, Comment, Sniff and Search Border Militarization, 14 SEATTLE J. FOR SOC. JUST. 915, 940 (2016) (explaining that, in response to the movement to legalize marijuana, “some local police departments have removed drug-dogs from their police work to eliminate the possibility of conducting an illegal search”); Ian Millhiser, Washington Police Retraining Drug Dogs not to Sniff for Marijuana after Legalization, THINKPROGRESS (Mar. 21, 2013, 1:00 PM), thinkprogress.org/washington-police-retraining-drug-dogs-not-to-sniff-for-marijuana-after-legalization-4559f0ecfd9/ [https://perma.cc/8YTR-ZELB] (noting that some Washington law enforcement agencies have begun retraining their drug-detection dogs to be incapable of alerting to marijuana).

309 For additional illustrative examples, see discussion infra Section IV.B.
In August 2015, the Police Foundation and the Colorado Association of Chiefs of Police published *Colorado’s Legalization of Marijuana and the Impact on Public Safety: A Practical Guide for Law Enforcement*, in which they cite one “key issue” as “Drug-Sniffing Canines May Have To Be Retrained or Replaced.”310 The report asks judicial officials and policy makers to determine the constitutional effect of legalized marijuana on law enforcement’s use of drug-detection dogs “for general drug searches.”311 If marijuana is legal, the report explains, police officers can no longer be certain that a drug-detection dog is alerting to an unlawful substance.312 It therefore opines that “[n]ewly trained drug-sniffing dogs may be required in states where marijuana has been legalized.”313

In New York, where marijuana is legal only for medicinal use,314 at least two law enforcement agencies are already replacing their drug-detection dogs.315 The Buffalo Police Department is replacing its retired drug-detection dogs with those that are not trained to reveal the location of marijuana.316 Similarly, the Erie County Sheriff’s Office is replacing five of its drug-detection dogs with those that are not trained to detect marijuana.317 When asked about the transition, Erie County Undersheriff Mark Wipperman commented, “We believe, in the Sheriff’s Office, that the writing is on the wall.”318

In the context of routine traffic stops, the writing is clear: Drug-detection dogs are a nonbinary type of investigative technique in states that have legalized marijuana for recreational or medicinal use.319 In those states, a dog sniff conducted during a routine traffic stop is a Fourth Amendment “search.”320 Absent consent, the Fourth Amendment prohibits police officers from conducting a warrantless vehicular “search” during a routine traffic stop.321 Thus, law enforcement agencies

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311 Id. at 16.
312 Id. at 15.
313 Id. at 16.
314 See supra note 209 and accompanying text.
316 Id.
317 Id.
318 Id. (cleaned up).
319 See supra Section III.B.
320 See supra Section III.B.
321 See supra notes 303–04 and accompanying text.
operating in the thirty-seven states that have legalized marijuana for recreational or medicinal use must retrain their drug-detection dogs to be incapable of revealing the location of marijuana or replace their drug-detection dogs with those that are incapable of the same.

B. In with the Binary

In the context of routine traffic stops, the constitutional path forward is clear: Law enforcement agencies operating in states that have legalized marijuana for recreational or medicinal use must retrain or replace their drug-detection dogs. But “there is a difference between knowing the path and walking the path.”322 To that end, this section illustrates the financial and administrative challenges that law enforcement agencies will face as they retrain their drug-detection dogs to be incapable of revealing the location of marijuana or replace their drug-detection dogs with those that are incapable of the same. It also provides illustrative examples of ways that law enforcement agencies can mitigate those challenges.

Retraining or replacing every drug-detection dog across the thirty-seven states that have legalized marijuana for recreational or medicinal use will have a significant financial impact on the law enforcement profession.323 As a threshold matter, experts disagree about whether it is possible to retrain a drug-detection dog to be incapable of revealing the location of a substance to which it has been trained to alert.324 Normal, Illinois Assistant Police Chief Steve Petrill has opined that “it would be impossible to teach the dogs to ignore odors they have been trained to recognize since they were young.”325 Similarly, Chad Larner, training


324 See, e.g., Am. Addiction Ctrs., supra note 307 (explaining that “[t]rainers and handlers are in disagreement about the potential success” of retraining a drug-detection dog to be incapable of revealing the location of a substance to which it has been trained to alert); Damian Mann, Pot-Sniffing Dogs Headed for Early Retirement, MAIL TRIB. (Apr. 30, 2015), mailtribune.com/news/crime-courts-emergencies/pot-sniffing-dogs-headed-for-early-retirement (“Officer Eric Sorby of the Springfield Police Department . . . said there are arguments about whether a dog can be retrained, but to err on the safe side, his dog was trained to detect only methamphetamine, heroin and cocaine.”); Russell, supra note 306 (noting that it is “much harder to retrain a dog than it is to train them for the first time”).

director of the K-9 Training Academy in Macon County, Illinois, has stated that “it would amount to ‘extreme abuse’” to retrain a drug-detection dog.\textsuperscript{326}

However, Mary Cablk, a scientist who studies dog-handler teams at the Desert Research Institute in Reno, Nevada, has stated that “[r]etraining a dog to stop alerting on a particular scent, such as marijuana, is fairly straightforward . . . .”\textsuperscript{327} She explained that, “[i]f a trainer stops rewarding a dog for alerting a handler to the presence of a particular scent, then the alert behavior can be unlearned.”\textsuperscript{328} Similarly, Bill Lewis II, a spokesman for the California Narcotics Canine Association, has commented that “most trainers agree the dogs can be retrained.”\textsuperscript{329} But he added that it is likely “too expensive and time-consuming” to be worth the effort.\textsuperscript{330}

In terms of expense, the cost of training a drug-detection dog ranges from $12,000 to $15,000, “depending on the length of each class.”\textsuperscript{331} The training process can last up to four months, during which time the dog’s handler must stop performing his or her ordinary police duties to train alongside the dog.\textsuperscript{332} The handler’s absence can result in his or her department incurring a salary expense of over $20,000.\textsuperscript{333} Considering the uncertainty and financial costs of retraining, law enforcement agencies may choose to simply replace their drug-detection dogs instead.\textsuperscript{334}

\textsuperscript{326} Id.


\textsuperscript{328} Id.


\textsuperscript{330} Id.


\textsuperscript{334} Dave Smith, the head trainer at Ventosa Kennel, advises law enforcement agencies against retraining their drug-detection dogs because they will likely face a heightened burden to prove the dogs’ reliability in court. Travis Fedschun, Drug-Sniffing Dogs Facing Early Retirements Due to Legalization of Marijuana, FOX NEWS (Nov. 26, 2018), www.foxnews.com/us/drug-sniffing-dogs-facing-early-retirements-due-to-legalization-of-marijuana [https://perma.cc/T9U3-PYRB].
But the decision to replace drug-detection dogs will come with a high price tag of its own.335 One untrained drug-detection dog costs approximately $8,000.336 Buying and training a dog together costs around $13,000.337 Additionally, acquiring a drug-detection dog comes with routine expenses—such as new equipment and veterinary examinations—which can run from $2,500 to $3,000 annually.338 All things considered, it typically costs $20,000 for one drug-detection dog “to enter the force.”339 Holistically, it will cost the law enforcement profession millions of dollars to retrain or replace every drug-detection dog currently working in a state that has legalized marijuana for recreational or medicinal use.340

This financial burden will primarily be split among individual law enforcement agencies,341 many of which will need additional funding to afford the cost of retraining or replacing their drug-detection dogs.342 The question becomes: Where will the additional funding come from? One possibility is that law enforcement agencies could request a subsidy or budget supplement from their local or state governments.343 For example, after Oregon legalized marijuana for recreational use in 2014, the Medford City Police Department requested $24,000 from its

335 See Ric Simmons, Ending the Zero-Sum Game: How to Increase the Productivity of the Fourth Amendment, 36 Harv. J.L. & Pub. Pol’y 549, 581 (2013) (explaining that the up-front cost of one drug-detection dog is “between $5,000 and $8,000”).

336 Frequent Questions, supra note 331.


340 See Voyles, supra note 325 (explaining that “[r]eplacing all of the K9 units in [Illinois] would cost millions” of dollars). In 2017, California law enforcement agencies employed an estimated 800 drug-detection dogs. Winegarner, supra note 329. Assuming the average cost of replacing or retraining a drug-detection dog was $10,000, it would cost approximately $8,000,000 to replace or retrain all the drug-detection dogs in California alone. In 2014, Oregon law enforcement agencies employed a total of 150 dogs, 60 of which were “assigned to drug-enforcement.” Mann, supra note 324. Replacing all of Oregon’s drug-detection dogs would therefore cost roughly $600,000.

341 See Voyles, supra note 325 (noting that the cost of replacing or retraining “all of the K9 units in [Illinois] . . . would fall on each individual law enforcement agency”).


343 See Frequent Questions, supra note 331 (“Many police agencies do not have a budget for police dogs, so they are purchased by public and/or corporate donations.”).
city government to purchase “new dogs trained to smell only heroin, cocaine and methamphetamine, and not marijuana.”

Another possibility is that law enforcement agencies could seek donations from private foundations. In 2016, Macon County Sheriff Howard Buffett—middle child of billionaire Warren Buffett—donated over two million dollars to “K-9 units in 33 counties across Illinois” through his private charity, the Howard G. Buffett Foundation. The following year, he commented that, in states that have legalized marijuana, one of the biggest challenges facing law enforcement agencies is that they are “going to have to replace all of [their] dogs.” In June 2019, Illinois legalized marijuana for recreational use. Howard Buffett is no longer the Sheriff of Macon County, but perhaps he will make another donation to the canine programs of Illinois.

Finally, law enforcement agencies could turn to their communities for financial assistance. In July 2016, the Waymart, Pennsylvania Police Department created a “Go Fund Me” page online, seeking $5,000 in community donations to pay for training its then new drug-detection dog. In the four years since,
however, it has only received $1,515 in donations via Go Fund Me. Similarly, in December 2019, the Menominee, Michigan Police Department created a “Go Fund Me” page in hopes of raising $75,000 to subsidize the department’s first ever K-9 unit. As of August 2020, it has only received $360 via Go Fund Me.

In addition to the financial burden of retraining or replacing drug-detection dogs, law enforcement agencies will face administrative challenges associated with determining what to do with the drug-detection dogs that they replace, but do not retrain—i.e., their nonbinary dogs. One possibility is that law enforcement agencies could send their nonbinary dogs to work in states that have not legalized marijuana for recreational or medicinal use. The Colorado Police K9 Association, for instance, adopts drug-detection dogs from Colorado law enforcement agencies and sends “them to states where marijuana is still illegal.”

Another possibility is that law enforcement agencies could employ their drug-detection dogs in places where marijuana remains categorically illegal. Even in states that have legalized marijuana for recreational or medicinal use, the substance remains unlawful in certain places, such as a prison or school. In such places, a dog trained to detect marijuana remains a binary type of investigative technique because it is unable to detect lawful activity. Stated differently, the

353 Id.


355 Id.


357 See Russell, supra note 306 (explaining that drug-detection dogs can still be used “in states where marijuana is illegal”).

358 Brennan, supra note 342.

359 A related option is that law enforcement agencies could assign their drug-detection dogs to an entirely new line of work, such as search and rescue. See Shanna Lewis, Legal Pot Changes the Work of Some Drug Detection Dogs, WYO. PUB. MEDIA (Dec. 20, 2018), www.wyomingpublicmedia.org/post/legal-pot-changes-work-some-drug-detection-dogs#stream/0 [https://perma.cc/5TJG-YWGF].

360 See Russell, supra note 306 (noting that, in states that have legalized marijuana for recreational or medicinal use, drug-detection “dogs can still be used in schools and jails” because marijuana remains illegal in those places).

361 See sources cited supra notes 11, 126 and accompanying text.
same drug-detection dog that is a nonbinary type of investigative technique in the context of routine traffic stops remains a binary type of investigative technique in the context of prisons and schools.\textsuperscript{362}

Putting this option into practice, the Larimer County, Colorado Sheriff’s Office “retains two dogs that are trained for marijuana in the county jail, where the substance remains illegal to possess.”\textsuperscript{363} Similarly, Michigan State Police are using their fifty-five drug-detection dogs in places where marijuana remains categorically illegal, including “school busses, prisons, and schools.”\textsuperscript{364} Practically, then, the test for determining whether a dog sniff is a binary type of investigative technique in states that have legalized marijuana for recreational or medicinal use is something of a hybrid between the\textit{ Katz} Test and the Constitutional Trespass Test.\textsuperscript{365}

Lastly, law enforcement agencies could give their drug-detection dogs an early retirement.\textsuperscript{366} Assuming a Floridian suburb is out of the question, law enforcement agencies could send their drug-detection dogs to the homes of their handlers to live as household pets.\textsuperscript{367} In doing so, law enforcement agencies might consider working with nonprofit organizations that assist canine handlers with adopting retired drug-detection dogs.\textsuperscript{368} The Retired Police Canine Foundation,

\begin{footnotes}


\textsuperscript{365} See supra notes 88–93 and accompanying text.

\textsuperscript{366} See Cherney, supra note 323 (noting that, in response to the legalization of marijuana, “some departments may opt to retire canines early,” at which time “they generally get to enjoy a life of leisure as a family pet at their handler’s house . . . .”).

\textsuperscript{367} See\textit{ Frequent Questions}, supra note 331 (explaining that, upon retirement, a drug-detection dog “lives at home with its handler to live out its life as a family pet”).

\textsuperscript{368} The Society for the Prevention of Cruelty to Animals International (“SPCAI”) provides an illustrative example of one such organization. See SPCAI Gives $25,000 to Mission K9, SPCA INT’L (Nov. 5, 2019), www.spcai.org/news/press/spcai-gives-25000-to-mission-k9 [https://perma.cc/SZR6-M9GH]. The SPCAI assists in providing K-9 retirement funds to police foundations and law enforcement agencies in need. \textit{Id.} It has worked with the Erie County, New York Sheriff’s Office “to establish a K-9 retirement fund,” which “ensures that handlers who want to keep their retired dogs can afford the medication needed for the dogs to live comfortably . . . .” Tan, supra note 315.
\end{footnotes}
for example, helps handlers pay for expenses related to adopting and caring for retired drug-detection dogs.369 These organizations help ensure that retired drug-detection dogs are not sent to shelters—or worse, put to sleep.370

**Conclusion**

In 2019, then President Donald Trump described drug-detection dogs as “the greatest equipment in the world,” explaining that they “do a better job [at locating drugs] than $400 million worth of equipment.”371 He added separately that “nothing . . . replaces a good dog.”372 That may be so, but questions persist about the application of modern Fourth Amendment jurisprudence to drug-detection dogs in the thirty-seven states—and counting375—that have legalized marijuana for recreational or medicinal use.374

For example, lower courts have begun considering whether a dog alert establishes probable cause to conduct a Fourth Amendment “search” in states that have legalized recreational or medicinal marijuana.375 In the context of routine traffic stops, the United States Supreme Court has traditionally held that a dog

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369 How Dogs Protect Our Communities from Criminals and Terrorists, RETIRED POLICE CANINE FOUND., www.policek9help.com/ (last visited July 1, 2020) [https://perma.cc/48Q3-859B].

370 See id. (“As a result of the cost and many obstacles that get in the way of adoption, many retired law enforcement dogs . . . end up in a shelter. Sadly, we’ve heard of cases where these dogs are even put to sleep because there is no one to care for them.”). Other nonprofit organizations, such as Mission K9 Rescue, help law enforcement agencies find homes for drug-detection dogs that have no handler at the time of retirement. See Our Mission, MISSION K9 RESCUE, missionk9rescue.org/about-mission-k9-rescue/ (last visited July 1, 2020) [https://perma.cc/6LC3-YMRY].


373 By 2028, researchers estimate that there is over a seventy percent chance that marijuana will be legal under federal law. Kyle Jaeger, When Will Marijuana Finally be Legalized Nationwide? Researchers Have a Forecast, MARIJUANA MOMENT (Oct. 24, 2018), www.marijuanamoment.net/when-will-marijuana-finally-be-legalized-nationwide-researchers-have-a-forecast/ [https://perma.cc/JB8D-PNG9].

374 See supra notes 209–10.

375 Compare State v. Senna, 2013 VT 67, ¶ 16, 79 A.3d 45, 51 (Vt. 2013) (“At least in the absence of any indication that a resident of a home is a registered patient, the fact that Vermont has a registry of patients who are exempt from prosecution for possession or cultivation of marijuana does not undermine the significance of the smell of marijuana as an indicator of criminal activity.”), with People v. Brukner, 43 N.Y.S.3d 851, 857 (N.Y. Cnty. Ct. 2016) (holding that the odor of marijuana emanating from an individual alone does not “justify forcibly handcuffing” the individual and “searching him for marihuana”).
alert provides probable cause to conduct a warrantless “search” of a vehicle. The Court has reasoned that a dog alert creates “a fair probability that contraband or evidence of a crime will be found” in the vehicle to be searched. Marijuana, however, is arguably not contraband or evidence of a crime in states that have legalized the substance for recreational or medicinal use.

In resolving this question, lower courts could take at least three different approaches. First, they could hold that a dog alert fails to establish probable cause to conduct a Fourth Amendment “search.” Second, they might determine that a dog alert is a non-dispositive factor that contributes to the suspicion needed to establish probable cause to conduct a Fourth Amendment “search.” Third, they could conclude that a dog alert alone provides probable cause to conduct a Fourth Amendment “search.” Determining which of these approaches most closely aligns with modern Fourth Amendment jurisprudence is a task that remains for another day—and article.

For now, three threshold conclusions are clear. First, a dog sniff conducted during a routine traffic stop is a nonbinary type of investigative technique in

378 See, e.g., Contraband, BLACK’S LAW DICTIONARY (11th ed. 2019) (defining contraband as “[g]oods that are unlawful to import, export, produce or possess”; or “[p]roperty whose possession is unlawful regardless of how it is used”); Adams, supra note 305, at 1194–95 (reasoning that “state legalization of marijuana” may “take the substance out of the contraband category altogether”).
379 See Commonwealth v. Cruz, 945 N.E.2d 899, 910 (Mass. 2011) (reasoning that the odor of marijuana alone is insufficient to establish probable cause to warrantlessly “search” a vehicle because the possession of one ounce or less of marijuana is no longer a criminal offense in Massachusetts).
380 See Maryland v. Pringle, 540 U.S. 366, 371 (2003) (“The probable-cause standard is incapable of precise definition or quantification into percentages because it deals with probabilities and depends on the totality of the circumstances.”). The Supreme Court has explained “that ‘innocent behavior will frequently provide the basis’ for establishing probable cause to conduct a Fourth Amendment ‘search.’” United States v. Sokolow, 490 U.S. 1, 10 (1989) (quoting Gates, 462 U.S. at 243 n.13).
381 The Souza court ultimately reached this conclusion. State v. Souza, No. 34154-2-III, 2017 WL 2955534, at *4 (Wash. Ct. App. July 11, 2017) (“While we acknowledge that the State trained Isko to detect miniscule amounts of marijuana before the substance’s legalization, such training does not disqualify his alert. As the State highlights, marijuana remains illegal for some persons and under some circumstances.”).
382 Following this article, the author plans to devote his academic scholarship to the question of whether a dog alert during a routine traffic stop establishes probable cause to conduct a Fourth Amendment “search” in states that have legalized recreational or medicinal marijuana, or decriminalized the substance.
383 See, e.g., United States v. Gonzalez, 328 F.3d 543, 546 (9th Cir. 2003) (“The threshold inquiry in any Fourth Amendment analysis is whether the government’s conduct is included in the Amendment’s coverage, in other words, whether it amounts to a ‘search’ for constitutional purposes.”); April A. Otterberg, Note, GPS Tracking Technology: The Case for Revisiting Knotts and
the thirty-seven states that have legalized marijuana for recreational or medicinal use.\textsuperscript{384} Second, a dog sniff conducted during a routine traffic stop is a Fourth Amendment “search” in those thirty-seven states.\textsuperscript{385} Third, law enforcement agencies operating in those states must retrain their drug-detection dogs to be incapable of revealing the location of marijuana or replace their drug-detection dogs with those that are incapable of the same.\textsuperscript{386}