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Has the Fourth Amendment Gone to the Dogs?: Unreasonable Expansion of Canine Sniff Doctrine to Include Sniffs of the Home

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The Fourth Amendment, and the personal rights which it secures, have a long history. At the very core stands the right of a man to retreat into his own home and there be free from unreasonable governmental intrusion.

Police employ drug-detection dogs in public locations, such as airports, as a quick means of determining whether luggage contains contraband.² In *United States v. Place*, the U.S. Supreme Court explained that the use of drug-detection dogs to sniff luggage in a public location was not a "search" under the Fourth Amendment because of the accuracy and limited intrusiveness of the canine sniff technique.³ The *Place* Court likely reached this conclusion because

¹ Silverman v. United States, 365 U.S. 505, 511 (1961).

² See, e.g., Florida v. Royer, 460 U.S. 491, 506 (1983) (recommending use of the canine sniff technique because "[a] negative result [from a canine sniff] would have freed Royer in short order; a positive result would have resulted in his justifiable arrest on probable cause").

³ United States v. Place, 462 U.S. 696, 707 (1983) (observing that a canine sniff of luggage located in a "public place" was not a search, explaining that "[w]e are aware of no

the background understanding of the day was that detection dogs were the ideal sensing tool because, in the rare case of a mistake, the dog's error was actually a false *negative*.⁴ Therefore, any mistake by a drug-detection dog worked to the benefit of the luggage owner.

Despite recent evidence that drug-detection dogs are inaccurate a surprising percentage of the time, the Court in *Illinois v. Caballes* extended the warrantless use of the canine sniff technique to a lawfully stopped vehicle.⁵ The impact of the *Caballes* decision has been felt far beyond vehicle sniffs, however. Lower courts have taken the *Place* and *Caballes* decisions as a signal that canine sniffs are per se nonsearches and that it is therefore permissible to conduct suspicionless canine sniffs of homes. Without a warrant requirement, or even a suspicion requirement, police are thereby granted unfettered discretion to conduct dragnet investigations at housing projects or other multidwelling locations, such as apartment complexes, or to arbitrarily select sniff locations.⁶ A positive canine alert may then be used to obtain a warrant to enter the home and physically search for drugs or to target a home for consent-based entry.

Despite the visceral offensiveness of potential dragnet or selective police investigations involving the home, all lower federal courts that have considered the issue, aside from the U.S. Court of Appeals for the Second Circuit, have concluded that a canine sniff of a private home is not a "search" under the Fourth Amendment. Therefore, no warrant, or even suspicion, is required to perform the canine sniff.⁷

other investigative procedure that is so limited both in the manner in which the information is obtained and in the content of the information revealed by the procedure").

⁴ See infra notes 151–52 (discussing *Place*'s apparent assumptions concerning the accuracy of detection dogs). Because *Place*'s canine sniff discussion was only two paragraphs in length, referenced no legal or scientific authority, and the canine sniff issue was neither briefed nor argued to the Court, discussion of the *Place* Court's assumptions is necessarily speculative. *See Place*, 462 U.S. at 719 (Brennan, J., concurring).

⁵ Illinois v. Caballes, 543 U.S. 405, 409 (2005).

⁶ See People v. Dunn, 564 N.E.2d 1054, 1058 (N.Y. 1990) (finding that the canine sniff of a home was a "search" under the New York Constitution). "To hold otherwise, we believe would raise the specter of the police roaming indiscriminately through the corridors of public housing projects with trained dogs in search of drugs. . . . Such an Orwellian notion would be repugnant" *Id.* (citations omitted); *see also* Hoop v. State, 909 N.E.2d 463, 469 (Ind. Ct. App. 2009) (observing that "[a]llowing random searches, or searches of those individuals whom the officers hope to find in possession of incriminating evidence gives excessive discretion to engage in fishing expeditions" (quoting Litchfield v. State, 824 N.E.2d 356, 364 (Ind. 2005))).

⁷ Compare United States v. Thomas, 757 F.2d 1359, 1367 (2d Cir. 1985) (finding a warrantless canine sniff under an apartment door to be a "search"), with United States v. Reed, 141 F.3d 644, 650 (6th Cir. 1998) (finding the location of a canine sniff "irrelevant"

This Article challenges the legitimacy of that conclusion and argues that a canine sniff of a private residence—a location that is afforded stringent Fourth Amendment protection—is a "search" within the meaning of the Fourth Amendment.

The canine home-sniff issue is emblematic of a more generalized Fourth Amendment crossroads that the Court must surely face. If the legitimacy of our expectations of privacy is determined primarily by the legality or illegality of the item possessed, then the *circumstances* of that possession become irrelevant. To precondition Fourth Amendment protection on the contraband/noncontraband nature of the object of the search without consideration of the privacy interests compromised by the investigation itself represents a worrisome reorientation of the Fourth Amendment. This shorthand Fourth Amendment analysis could, for all intents and purposes, consume the Fourth Amendment, except in situations where the Court has expressly provided protection from intrusive police practices. Accordingly, resolution of the canine home-sniff question has farreaching Fourth Amendment implications.

To explore the canine home-sniff issue, Part II of this Article considers two competing lines of U.S. Supreme Court caselaw that have split the lower courts' analysis in this area. Three critical issues

and, thus, not a "search"), United States v. Roby, 122 F.3d 1120, 1125 (8th Cir. 1997) (finding that a canine sniff of a common hotel corridor was not a "search"), United States v. Lingenfelter, 997 F.2d 632, 638 (9th Cir. 1993) (disagreeing with Thomas), United States v. Colyer, 878 F.2d 469, 475-76 (D.C. Cir. 1989) (same), and United States v. Sklar, 721 F. Supp. 7, 14 (D. Mass. 1989) (finding no expectation of privacy for contraband hidden in the home). Virtually every state court that has considered the homesniff issue under the Federal Constitution is in accord that a canine sniff is not a "search." See, e.g., Fitzgerald v. State, 837 A.2d 989, 1030 (Md. Ct. Spec. App. 2003) (finding no "search" based upon "the binary nature of [the canine sniff] inquiry, contraband yea or nay?, precludes the possibility of infringing any [legitimate] expectation of privacy" (internal quotation marks omitted)), aff'd, 864 A.2d 1006 (Md. 2004) (declining to decide the "search" issue because reasonable suspicion to conduct the canine home-sniff was present); Dunn, 564 N.E.2d at 1056-57 (holding that a canine home-sniff was not a "search" under the Federal Constitution, but finding a "search" under the New York Constitution); State v. Smith, 963 P.2d 642, 647 (Or. 1998) (questioning *Thomas*); Rodriguez v. State, 106 S.W.3d 224, 230 (Tex. App. 2003) (holding that a sniff was not a "search" under the Federal Constitution). In contrast, State v. Rabb, 920 So. 2d 1175 (Fla. 4th Dist. Ct. App.), cert. denied, 549 U.S. 1052 (2006), stands alone in finding that a sniff of a private residence was a "search" under the Federal Constitution. Cf. United States v. Jackson, No. IP 03-79-CR-1H/F, 2004 WL 1784756, at *4 (S.D. Ind. Feb. 2, 2004) (applying Kyllo-based privacy analysis, but the decision is distinguishable because the detection dog alerted on the back door of the residence, which the court did not view as a "public place").

⁸ Place along with United States v. Jacobsen, 466 U.S. 109 (1984), a case cited for the proposition that a person has no legitimate expectation of privacy in contraband, have

generated from the doctrinal analysis are then considered in Part III. In Part III.A, this Article argues that *Place*'s justifications, namely accuracy and limited intrusiveness, do not support extending the canine sniff investigative technique to the home, and that such an unsupported extension of *Place* is inconsistent with the Court's recent demand for logical consistency between doctrinal extensions and the justifications offered to support the original rule. Unfortunately, meaningful legal analysis of *Place*'s underlying justifications has been stifled by the *Place* Court's use of the term "sui generis" in describing canine sniffs. Part III.A examines the Court's use of the sui generis descriptor in other Fourth Amendment cases and argues that lower courts are mistakenly attributing substantive heft to a term that is, in fact, intended to narrow the circumstances under which a doctrine may be used.

Part III.B considers the heightened expectations of privacy associated with the home and whether the introduction of potentially dangerous, and clearly intimidating, drug-detection dogs into the protected curtilage areas of a private home is intrusive such that the practice should be viewed as a "search" under the Fourth Amendment. The analysis in Part III.B builds on the discussion in Part I, which describes the routine cross-training of drug-detection dogs for criminal apprehension, or so-called "bite dog," purposes. Large and aggressive dogs are typically selected for drug-detection training. In analyzing the reasonableness of privacy expectations, the Supreme Court has instructed that societal understandings are an appropriate consideration. Therefore, this Article argues that our country's long history of using dogs to intimidate racial minorities and the offensiveness of dogs to followers of some religions must be

formed the basis for the majority's conclusion that canine sniffs of the home are not "searches." The competing line of cases is based primarily on *Kyllo v. United States*, 533 U.S. 27 (2001), a case that bars the warrantless use of nonroutine sense-enhancing technology directed at the home.

⁹ See Arizona v. Gant, 129 S. Ct. 1710, 1714 (2009) (refusing to extend *Belton*, explaining that in the search-incident-to-arrest context, "[t]he safety and evidentiary justifications underlying *Chimel*'s reaching-distance rule determine *Belton*'s scope," and further finding that the justifications are not satisfied when a recent occupant of a vehicle had been secured after an arrest and could not access the interior of the vehicle).

 $^{^{10}}$ United States v. Place, 462 U.S. 696, 707 (1983) ("[T]he canine sniff is $\it sui$ $\it generis.").$

¹¹ See, e.g., Rakas v. Illinois, 439 U.S. 128, 143 n.12 (1978) (observing that "[l]egitimation of expectations of privacy by law must have a source outside of the Fourth Amendment, either by reference to concepts of real or personal property law or to understandings that are recognized and permitted by society").

considered when examining the intrusiveness resulting from introduction of a police dog into the protected curtilage area of a private home.

Part III.C argues that trained drug-detection dogs are "natural" technology and that, when used to sniff a private residence, Kyllo should control. The government itself labels detection dogs as "technology" in its project literature. Further, canine detection capabilities have been strengthened and enhanced through scientific research, innovative training tactics, genetics-based breeding programs, and even cloning technology. As such, this Article argues that drug-detection dogs are "natural" technology that implicate the same concerns as those voiced in Kyllo: (1) "advancing technology," in view of the potential for technology-based enhancement of the canine sniff technique, and (2) the likely disclosure of noncontraband information. 12 Therefore, this Article argues that canine sniffs of the home are "searches" within the meaning of the Fourth Amendment and, similar to the thermal imager warrants required after Kyllo, must be supported by a dog sniff warrant.

I

TRAINING AND CERTIFICATION OF DRUG-DETECTION DOGS AND THE SCIENCE OF THE CANINE SNIFF

As the above quotation suggests, dogs have been used as an adjunct to law enforcement for hundreds of years to assist in the location of fugitives.¹⁴ In modern times, canines are trained for a variety of purposes including drug detection, apprehension,¹⁵

 13 SIR Walter Scott, The Talisman 256 (Ernest Rhys ed., E.P. Dutton & Co. 1914) (1825).

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¹² Kyllo, 533 U.S. at 35-38.

¹⁴ Bloodhounds, as well as other breeds of dogs, are used in trailing fugitives, missing persons, and criminals. *See* Debruler v. Commonwealth, 231 S.W.3d 752, 758 (Ky. 2007).

¹⁵ Apprehension dogs are canines that are trained to locate and immobilize a suspect under circumstances during which it would be difficult or dangerous for a human officer to locate the suspect or secure him. Apprehension dogs that have been trained in the "bite and hold" technique are trained to find a hiding human and immobilize him, typically by biting and holding onto the suspect's arm. See Jarrett v. Town of Yarmouth, 331 F.3d 140,

explosives detection,¹⁶ cadaver detection,¹⁷ and agriculture detection.¹⁸ While not trained to be "all-purpose sniffers,"¹⁹ it is not unusual for drug-detection dogs to be cross-trained as apprehension, or so-called "bite dogs."²⁰ Therefore, larger breeds, such as German shepherds or Belgian malinois,²¹ are often selected for drug detection purposes.²² While explosives-detection dogs are trained and certified through a federal program and under a federal certification standard,²³ drug-detection dogs are generally trained and certified by private vendors without the benefit of regulatory standards for training and certification. For example, private vendors such as the U.S. Police

^{143 (1}st Cir. 2003) (discussing training and practices of apprehension dogs in the context of qualified immunity).

¹⁶ Explosives-detection dogs are trained to sniff out "explosives, radiological materials, chemical, nuclear or biological weapons." 6 U.S.C. § 1116(a) (2006).

¹⁷ See generally Andrew Rebmann et al., Cadaver Dog Handbook: Forensic Training and Tactics for the Recovery of Human Remains (2000).

¹⁸ See, e.g., ANIMAL & PLANT HEALTH INSPECTION SERV., U.S. DEP'T OF AGRIC., USDA'S DETECTOR DOGS: PROTECTING AMERICAN AGRICULTURE 1 (1996), available at http://permanent.access.gpo.gov/lps19118/usdabbb.pdf (describing the Beagle Brigade as "a group of nonaggressive detector dogs and their human partners" that "search travelers' luggage for prohibited fruits, plants, and meat that could harbor harmful plant and animal pests and diseases").

¹⁹ Illinois v. Caballes, 543 U.S. 405, 423 (2005) (Ginsburg, J., dissenting) ("A dog sniff for explosives . . . would be an entirely different matter [from the drug-detection dog at issue in *Caballes*]. Detector dogs are ordinarily trained not as all-purpose sniffers, but for discrete purposes.").

²⁰ See, e.g., Deborah Palman, U.S. Police Canine Ass'n, K9 Options for Law Enforcement, http://www.uspcak9.com/training/enforcement.cfm (last visited Apr. 29, 2010) (observing that many "find and bite" dogs "are also cross trained to be detector dogs which locate drugs or other contraband").

²¹ See, e.g., TRACY L. ENGLISH, OFFICE OF HISTORY, LACKLAND AIR FORCE BASE, THE QUIET AMERICANS: A HISTORY OF MILITARY WORKING DOGS 23 (2000), available at http://www.lackland.af.mil/shared/media/document/AFD-061212-027.pdf. The U.S. Department of Defense Military Working Dog program prefers the Belgian malinois breed because it "share[s] many of the positive traits with the German Shepherd," including easy adaptation and "very good prey/kill instincts." *Id.* "While some referred to these dogs as 'living weapons,' the main purpose of the animals was deterrence." *Id.*

²² In contrast, the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) exclusively uses Labrador retrievers as explosive-detection canines. *Sniffing Out Terrorism: The Use of Dogs in Homeland Security: Hearing Before the Subcomm. on Prevention of Management, Integration, and Oversight of the H. Comm. on Homeland Security*, 109th Cong. 18 (2005) (statement of Special Agent Terry Bohan, Chief, National Canine Training and Operations Support Branch). Although "other breeds" could detect explosives, ATF uses only Labrador retrievers because they are a "hearty, intelligent breed . . . [and] possess a gentle disposition," which allows for them to be used "in crowds and around children." *Id.*

²³ See 6 U.S.C. § 532(a), (b)(3) (2006) (authorizing the use of the Explosives Training and Research Facility to "train canines on explosive detection").

Canine Association (USPCA),²⁴ the National Narcotic Detector Dog Association (NNDDA),²⁵ and the American Working Dog Association (AWDA)²⁶ offer training classes for canine handlers, as well as certification of drug-detection dogs, based on each association's own internally generated certification standards.²⁷

In comparing these certification programs, certain similarities and therefore, perhaps, "minimum" requirements for drug detection canines emerge. All programs train drug-detection dogs to search for marijuana and cocaine; certification for additional substances, such as heroin, methamphetamines, and opium, as well as certified derivatives of these drugs, may be available. Significant to the home-sniff issue, detection dogs are trained and certified based on *interior* walk-throughs and sniffs of buildings, not perimeter sniffs. This is not to say that the certification process entirely excludes outside areas. Some agencies offer certification for "open areas," but

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²⁴ U.S. POLICE CANINE ASS'N, USPCA RULEBOOK 2009 (2009), http://www.uspcak9.com/certification/USPCARulebook2009.pdf [hereinafter USPCA RULEBOOK 2009].

²⁵ Nat'l Narcotic Detector Dog Ass'n, http://www.nndda.org (last visited Apr. 27, 2010).

 $^{^{26}}$ Am. Working Dog Ass'n, http://www.americanworkingdog.com (last visited Apr. 27, 2010).

²⁷ See Robert C. Bird, An Examination of the Training and Reliability of the Narcotics Detection Dog, 85 KY. L.J. 405, 410–15 (1996) (addressing the training of these dogs by federal and state law enforcement agencies).

²⁸ See, e.g., Am. Working Dog Ass'n, Certification Standards: Narcotic Detection Standards, http://www.americanworkingdog.com/certification_standards.htm#Narcotic _Detection Standards (last visited Apr. 27, 2010) [hereinafter AWDA Certification] (displaying the certifications available for narcotics-detection dogs). The NNDDA's Narcotic Detection Standard includes, at a minimum, the detection of cocaine and marijuana, with the option of obtaining additional certification for the detection of heroin, methamphetamines, and opium. See Nat'l Narcotic Detector Dog Ass'n, Narcotic Detection Standards, http://www.nndda.org/official-docs/doc_download/2-narcotics-detection-standard (last visited Apr. 27, 2010) [hereinafter NNDDA Certification]; see also USPCA RULEBOOK 2009, supra note 24, at 18.

²⁹ For building searches under the AWDA standards, the canine must search the interior of a building consisting of no less than two rooms and having at least one thousand square feet. AWDA Certification, *supra* note 28. The NNDDA tests detection dogs on their ability to find two stashes of each narcotic hidden in a given area, which is "of [an] indoor nature (building)" that is "no larger than one thousand . . . square feet." *See* NNDDA Certification, *supra* note 28. The USPCA uses slightly different certification requirements. The location of the canine testing is limited to a vehicle and indoor, interior rooms. *See* USPCA RULEBOOK 2009, *supra* note 24, at 18. For the indoor test, the canine must search three furnished rooms, each measuring a minimum of two hundred square feet. *Id*.

this certification appears to involve investigations for drugs hidden in open locations, such as fields.³⁰

For purposes of the canine sniff of a private home, the critical issues raised by unregulated drug-detection dog training and certification standards are significant. No private agency specifically trains or certifies detection dogs to investigate for contraband hidden within a building unless the dog is also permitted to walk through the *interior* of the structure for detection purposes. Additionally, there is no reported data concerning the accuracy of drug-detection dogs when the dog is limited to a perimeter sniff of a home. Without data, training, or certification, evaluating the accuracy of drug-detection dogs in the home-sniff context amounts to little more than guesswork.

With respect to the science of the canine sniff, the U.S. Department of Justice describes detector dogs as a type of "trace detector" capable of detecting vapors or particulates of specific items, including drugs or explosives.³² Courts that permit suspicionless canine sniffs of the home operate on the assumption that drug-detection dogs alert solely

³⁰ See generally supra notes 24, 28-29 (discussing certification standards for various private vendors).

³¹ For example, even fundamental issues remain unresolved within the industry, such as whether detection dogs should be trained and certified using street drugs or, instead, "pseudo-controlled substances," which are "legal chemicals with the same smell as illegal narcotics." See United States v. Broadway, 580 F. Supp. 2d 1179, 1192 (D. Colo. 2008) (defining pseudoscents). Although the use of pseudoscents may be preferable because they prevent the detection dog from becoming distracted by cutting agents routinely found in street drugs, most certifying agencies tout the fact that they train and certify detection dogs using only "real" drugs. Compare Jessica Snyder Sachs, The Fake Smell of Death, DISCOVER, Mar. 1996, at 89, available at http://discovermagazine.com/1996/mar/ thefakesmellofde714 (interviewing sensory biologist Dr. Larry Myers at Auburn University) ("Myers tells of a narcotics officer who had trained his dog on drugs kept in plastic storage bags. 'I'll be damned if that dog didn't start alerting to the scent of Ziploc bags,' says Myers. A dog trained on street drugs can likewise get distracted by cutting agents, homing in on baking powder in the fridge and ignoring uncut cocaine in the with Hills Kennels, Detection pantry."), Inc., Drug http://www.southernhillskennels.com/drug-dogs (last visited Apr. 29, 2010) (private vendor advertising that it "only use[s] real drugs, not pseudo drug scents"), and Nat'l Law Enforcement Canine Org., Certification Standards: Narcotics, http://www.nleco.org/ cert_narc.html (last visited Apr. 29, 2010) (stating that no pseudodrugs are used for certification).

³² NAT'L INST. OF JUSTICE, U.S. DEP'T OF JUSTICE, GUIDE FOR THE SELECTION OF DRUG DETECTORS FOR LAW ENFORCEMENT APPLICATIONS: NIJ GUIDE 601-00, at 21–23 (2000) [hereinafter SELECTION OF DRUG DETECTORS]. The report defines a "trace drug detection system" as "any drug detection system that detects drugs by collecting and identifying traces from the material [which] may be in the form of either vapor or particulate." *Id.* at 50.

to contraband, and in doing so, reveal no noncontraband information about the contents of the home. 33 Nothing could be further from the truth. Studies show that drug-detection dogs alert not to the illegal drug itself, but instead to a contaminant or by-product in the drug.³⁴ In fact, detection dogs may not be able to detect the so-called ultrapure forms of drugs, such as cocaine and heroin, because of the extremely low vapor pressure of the unadulterated drug.³⁵ With cocaine, for example, it appears that detection dogs do not actually alert to the cocaine itself because the drug is a topical anesthetic that "deadens olfactory senses." Instead, the detection dog likely alerts to methyl benzoate, a high vapor pressure by-product of cocaine that can occur naturally or as a result of processing.³⁷ Significantly, although methyl benzoate is a cocaine by-product, the molecule is also commonly found in everyday consumer products likely to be

³³ See, e.g., Fitzgerald v. State, 837 A.2d 989 (Md. Ct. Spec. App. 2003), aff'd, 864 A.2d 1006 (Md. 2004).

³⁴ See generally Gary S. Settles, Sniffers: Fluid-Dynamic Sampling for Olfactory Trace Detection in Nature and Homeland Security—The 2004 Freeman Scholar Lecture, 127 J. FLUIDS ENGINEERING 189 (2005) [hereinafter Sniffers]. Dogs may not be detecting drug molecules, "but rather one or more other chemicals that are contaminants in the [drug] and that have considerably high vapor pressures." See also SELECTION OF DRUG DETECTORS, supra note 32, at 21.

³⁵ A canine may not be able to detect drugs "manufactured in ultrapure form." SELECTION OF DRUG DETECTORS, supra note 32, at 21. Some drugs, such as heroin, are extremely difficult, if not impossible, to detect from their vapor when conducting a trace detection search at room temperature and normal atmospheric pressure because the vapor concentration at room temperature is exceptionally low: one part per trillion. *Id.* at 43.

³⁶ United States v. Funds in the Amount of Thirty Thousand Six Hundred Seventy Dollars (\$30,670.00), 403 F.3d 448, 458 (7th Cir. 2005) ("In addition, the research indicates that dogs do not alert to byproducts other than methyl benzoate and would not alert to synthetic 'pure' cocaine unless methyl benzoate was added.").

³⁷ See L. Paul Waggoner et al., Canine Olfactory Sensitivity to Cocaine Hydrochloride and Methyl Benzoate, 2937 SPIE 216, 216-217 (1997). The authors explain that "[t]his evidence suggests that when dogs are trained to detect cocaine in the field, their discriminations probably depend on one or more constituents in the vapor sample in addition to cocaine [hydrochloride]." Id. at 223. The authors also describe that an "odor signature" is the "constituent or multiple constituents of a substance that controls the olfactory detection responses of a dog," id. at 224, and note that the study's results "suggest that methyl benzoate may be one of the constituents of the illicit cocaine odor signature for dogs." Id. The authors found that "a combination of methyl benzoate plus other constituents (e.g. benzoic and acetic acid or ecogine . . .) may be required to define the odor signature." Id. (footnote omitted). In other words, canines may be alerting not to pure cocaine, but instead, at least in part, to methyl benzoate and other constituents found in the drug whether present naturally or as a result of the chemical decomposition of the cocaine. Id.

stored in a home, such as "solvents, insecticides, [and] perfumes." In other words, drug-detection dogs likely alert to an entirely legal substance, methyl benzoate, which allows the human police officer to infer that contraband is also present. For example, in Horton v. Goose Creek Independent School District, although it was not discussed by the court, the drug-detection dog in question appears to have alerted to an entirely lawful source of methyl benzoate—a bottle of perfume in the student's purse. Because methyl benzoate is commonly found in the home, further scientific clarification concerning the reliability of canine home-sniffs is essential.

Additionally, it is far from clear that civil forfeiture cases, proceedings in which the government seeks to seize currency based on its connection to criminal drug trafficking, should be mechanically applied to cases involving canine sniffs of the home.⁴⁰ Central to

The cases that appear to adopt the methyl benzoate theory of dog sniff drug detection do not discuss the fact that methyl benzoate is a common chemical used in multiple consumer products—solvents, insecticides, perfumes, etc. Perhaps the underlying studies eliminate the possibility that a dog may alert to the innocent presence of methyl benzoate from the use of those products, but the court decisions that discuss the studies do not so indicate. The majority opinion here must rely solely on the broad, untested conclusions of other courts because we have no scientific evidence in the record before us.

Id. In addition, the U.S. Food and Drug Administration has approved methyl benzoate for use in foods as a synthetic flavoring substance. 21 C.F.R. § 172.515 (2009); see also 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, 754–57 (2007) (observing both that a detection dog alerts to noncontraband items, such as methyl benzoate in cocaine, and that a detection dog cannot distinguish between similar contraband and noncontraband scents, such as heroin and acetic acid used in glues, marijuana and products made from hemp, methyl benzoate and cocaine, and ingredients contained in legal pharmaceutical drugs); Richard E. Myers II, Detector Dogs and Probable Cause, 14 GEO. MASON L. REV. 1, 4 (2006) (noting that detection dogs "can also learn to associate certain smells with the items on which it is trained, for example air freshener or plastic baggies, and thus alert to non-contraband items").

³⁹ 690 F.2d 470, 474 (5th Cir. 1982); *see also supra* note 38 (discussing the common use of methyl benzoate in consumer products, including perfume).

⁴⁰ Courts have been called on to address the argument that most currency is contaminated with trace amounts of cocaine residue and, therefore, a positive canine alert is meaningless. To address the currency contamination argument, the Ninth Circuit requires a "sophisticated dog alert," meaning that the government "must present evidence that the drug detection dog 'would not alert to cocaine residue found on currency in general circulation [and that] the dog was trained to, and would only, alert to the odor of a chemical by-product of cocaine called methyl benzoate." Sumareh v. Doe (*In re* \$80,045.00 in U.S. Currency), 161 F. App'x 670, 671–72 (9th Cir. 2006) (alteration in

³⁸ See Jacobson v. \$55,900 in U.S. Currency, 728 N.W.2d 510, 534–35 (Minn. 2007) (Hanson, J., concurring). In his concurrence, Justice Hanson noted:

civil forfeiture proceedings is the fact that methyl benzoate is a volatile molecule that dissipates quickly, meaning that a detection dog will alert to currency that has only recently been contaminated with street drugs, not currency that contains the trace amounts of drugs routinely detected in American money.⁴¹ Therefore, in the civil forfeiture context, methyl benzoate's high evaporation rate, or volatility, provides assurance that the currency contamination is fresh. "Freshness" of contamination cannot be presumed from a positive canine alert in the home-sniff context, however, since most homes contain entirely lawful sources of methyl benzoate. Additionally, no data exist that consider the evaporation rate of methyl benzoate on home surfaces or whether conditions exist in the home that might reduce the molecule's volatility.⁴²

Finally, lack of proximity to the scent source may be a further problem in canine home-sniffs. Scientific studies analyzing the aerodynamics of canine olfaction indicate that "[c]lose nostril proximity to a scent source is important."43 The canine nose is dependent on scent concentration, and "the detailed spatial distribution of a scent source can only be discerned when the nostril is brought into very close proximity with it."44 This "close proximity" requirement⁴⁵ is an inherent limitation to the canine's nose that, researchers explain, is compensated for by the dog's natural agility

original) (quoting United States v. \$22,474.00 in U.S. Currency, 246 F.3d 1212, 1216 (9th Cir. 2001)).

⁴¹ An example of "tenacious" particulate contamination can be found in twenty-dollar bills, which "in the United States are contaminated with enough cocaine residue to yield positive detections with certain types of trace detectors." SELECTION OF DRUG DETECTORS, supra note 32, at 6-7.

⁴² Cf. United States v. Funds in the Amount of Thirty Thousand Six Hundred Seventy Dollars (\$30,670.00), 403 F.3d 448, 458 (7th Cir. 2005) (observing that "[t]he more closed the environment, the slower the rate of evaporation and the longer the smell [of methyl benzoate] remains" and that stacked bills "lose the [methyl benzoate] odor more slowly [than unstacked] bills").

⁴³ Gary S. Settles et al., The External Aerodynamics of Canine Olfaction, in SENSORS AND SENSING IN BIOLOGY AND ENGINEERING 323, 323 (Friedrich G. Barth et al. eds., 2003) [hereinafter Aerodynamics of Canine Olfaction]. The purpose of this study was to determine how an electronic trace detector could be designed to mimic the capabilities of a dog's nose. Id.

⁴⁴ Id. at 325.

⁴⁵ See Sniffers, supra note 34, at 199 (observing that a detection dog's ability to "read' detailed olfactory 'messages'" is directly tied to proximity sniffing and, therefore, "in order to properly interrogate chemical traces it really is necessary for a dog to poke its nose into everyone's business").

and mobility. When a drug-detection dog engages in a close proximity sniff, researchers have documented a process, described as "scanning," by which the detection canine discovers or hones in on a scent source. During the scanning process, the detection dog sniffs close to the ground until reaching the scent source. The dog then moves its nose horizontally to the scent source, pausing when directly on top of it. The dog scans past the scent source but then returns to the scent once the scanning process has ceased, allowing the canine to take a survey of the distribution of the scent.

If it is optimal for a drug-detection canine to be in close proximity to the scent source, then a canine home-sniff may be compromised by situational impediments (i.e., lack of proximity) in using the "scanning" process on which detection and tracking dogs typically rely.⁵¹ The proximity consideration becomes even hazier when considering external factors, such as weather and crosswinds,⁵² which can also interfere with the range of a canine sniff. Additionally, the ease of particulate contamination on locations accessible to the public,

⁴⁶ See Aerodynamics of Canine Olfaction, supra note 43, at 334 (explaining that "evolution has... given the canine an agile platform with which to bring its aerodynamic sampler into close proximity with a scent source").

⁴⁷ Id. at 327–28; see also Sniffers, supra note 34, at 199.

⁴⁸ See Aerodynamics of Canine Olfaction, supra note 43, at 327; see also Sniffers, supra note 34, at 203.

⁴⁹ See Aerodynamics of Canine Olfaction, supra note 43, at 327–28.

⁵⁰ *Id.* The mucous lining in a canine's nose serves an important purpose in canine olfaction. Specifically, it can trap contraband particulates, resulting in "the natural way of sampling and chemosensing aerosol-borne trace substances." *Id.* at 331; *see also Sniffers*, *supra* note 34, at 196 (observing that a dry nose or "[e]xtreme aridity" can compromise quality of sniff by inhibiting olfaction).

⁵¹ Even in situations involving more traditional uses of drug-detection dogs, such as luggage or vehicle sniffs, there is little data concerning the dog's accuracy. As discussed in Part III.A, almost all of our understanding of detection-dog reliability arises from anecdotal discussions in judicial opinions concerning the individual detection dog at issue in the case. See R v. Kang-Brown, [2008] 1 S.C.R. 456, 2008 SCC 18 ¶ 15 (Can.) (observing that "courts are ill-equipped to develop an adequate legal framework for use of police dogs [because] . . . little is known about investigative techniques using sniffer dogs. Indeed, the record remains singularly bereft of useful information about sniffer dogs."). The data that does exist suggest real questions about reliability, however. See infra note 204 (discussing, among other things, studies of drug-detection dog field accuracy as reported by the Privacy Ombudsman of New South Wales to the Australian Parliament, which revealed that about seventy-three percent of those searched on the basis of a positive canine sniff were found *not* to be in possession of illegal drugs).

⁵² See Sniffers, supra note 34, at 205 (explaining that "[i]n the animal world, the only remedy for [breezes interrupting the sniff process] is proximity: If your nostrils are touching the sampled surface, then the wind is not an issue").

such as door handles,⁵³ may render a positive sniff meaningless in the home-sniff context since the home's occupants have little, and sometimes no, control over who accesses this open curtilage area.

The canine sniff technique's reliance on the detection of methyl benzoate raises two separate issues in the home-sniff context: (1) factual questions involving the detection dog's accuracy or reliability because the home is a common repository for substances that contain the entirely legal methyl benzoate molecule, and no data exist that consider whether situational impediments in the home-sniff context may compromise an otherwise "reliable" canine's detection capabilities; and (2) legal questions, since *Kyllo* prohibits technology-enhanced inferencing about the interior of a home that discloses noncontraband information. Too many uncertainties and gaps in scientific proof presently exist to assume that a positive canine home-sniff is an appropriate basis on which to issue a search warrant.

II

COMPETING LINES OF U.S. SUPREME COURT CASELAW: WHICH LINE CONTROLS CANINE SNIFFS OF THE HOME?

Power is a heady thing; and history shows that the police acting on their own cannot be trusted. And so the Constitution requires a magistrate to pass on the desires of the police before they violate the privacy of the home. ⁵⁵

The Fourth Amendment guarantees "[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures." The touchstone of the modern Fourth Amendment analysis turns on whether the person has a

[P]articulate contamination is easily transferred from one surface to another, so a person who has handled cocaine will transfer cocaine particles to anything else he or she touches, including skin, clothing, *door handles*, furniture, and personal belongings. Completely removing particulate contamination from an object requires rigorous cleaning, and, in the case of bare hands, a single thorough washing may not be sufficient to remove all particles.

SELECTION OF DRUG DETECTORS, supra note 32, at 6 (emphasis added).

⁵³ As the U.S. Department of Justice has explained:

⁵⁴ See generally Kyllo v. United States, 533 U.S. 27 (2001). For a discussion of the police inferencing issue, see *infra* Part II.B.

⁵⁵ McDonald v. United States, 335 U.S. 451, 456 (1948).

⁵⁶ U.S. CONST. amend. IV.

"constitutionally protected reasonable expectation of privacy." In *Katz*, the Court rejected the government's argument that a "search" occurs only when there has been a "physical intrusion" into a "constitutionally protected area," and reoriented the Fourth Amendment inquiry through the Court's now-familiar observation that the Fourth Amendment "protects people, not places." 58

A. Focus on the Item: No Legitimate Expectation of Privacy in Possession of Unlawful Contraband

Prior to *Place*, the Court signaled in *Florida v. Royer* the likely favorable treatment that canine sniffs would receive, at least where the sniff involved luggage located at an airport. The *Royer* Court's reference to the canine sniff technique was dicta, however, because the detectives never actually subjected Royer's bags to a drugdetection sniff. As a way of avoiding lengthy and intrusive detentions, the *Royer* Court seemed to invite the use of canine sniffs as an investigative tool, noting that the brevity of the detention associated with a canine sniff would likely ensure that the boundaries of *Terry v. Ohio* would not be exceeded. The *Royer* dicta was clear foreshadowing of both the favorable treatment that canine sniffs would receive and the Court's eagerness to consider the canine sniff issue itself, not just the reasonableness of the detention that made the sniff possible.

⁵⁷ Katz v. United States, 389 U.S. 347, 360 (1967) (Harlan, J., concurring). *Katz* overruled the "trespass" doctrine of *Goldman v. United States*, 316 U.S. 129 (1942), and *Olmstead v. United States*, 277 U.S. 438 (1928). Later Courts have described the *Katz* test as the "touchstone," *California v. Ciraolo*, 476 U.S. 207, 211 (1986), and the "lodestar," *Smith v. Maryland*, 442 U.S. 735, 739 (1979), in determining whether a surveillance technique is a "search" within the Fourth Amendment.

⁵⁸ Katz, 389 U.S. at 350-51.

⁵⁹ 460 U.S. 491, 505–06 (1983).

⁶⁰ In his concurrence, Justice Brennan pointed out that the question of using drugdetection dogs to detect contraband in luggage "is clearly not before us." *Id.* at 511 n.* (Brennan, J., concurring).

⁶¹ See generally Terry v. Ohio, 392 U.S. 1 (1968) (upholding the stop and subsequent frisk of an individual based on the officer's observation of suspicious behavior and reasonable suspicion that the suspect was armed).

⁶² Royer, 460 U.S. at 505 (observing that "the State has not touched on the question whether it would have been feasible to investigate the contents of Royer's bags in a more expeditious way. The courts are not strangers to the use of trained dogs to detect the presence of controlled substances in luggage.").

Just three months later, the Court again went out of its way to discuss canine sniffs in *United States v. Place*. There, detectives seized Place's luggage on the basis of reasonable suspicion and subjected the luggage to a drug-detection dog. The issue before the Court was whether *Terry* supported the limited detention of personal property on the basis of reasonable suspicion. The Court concluded that *Terry* would permit such a limited detention, but the detectives' ninety-minute detention of the luggage was too lengthy to be supported under *Terry*. ⁶⁴

Although Place did not challenge the validity of the canine sniff to which his luggage was eventually subjected and the U.S. Court of Appeals for the Second Circuit did not consider the sniff issue, the Court went beyond the issues presented to consider the canine sniff question without the benefit of briefs or argument on this issue. Writing for the majority, Justice O'Connor discussed the canine sniff issue in a conclusory, two-paragraph, citationless statement:

A "canine sniff" by a well-trained narcotics detection dog, however, does not require opening the luggage. It does not expose noncontraband items that otherwise would remain hidden from public view, as does, for example, an officer's rummaging through the contents of the luggage. Thus, the manner in which information is obtained through this investigative technique is much less intrusive than a typical search. Moreover, the sniff discloses only the presence or absence of narcotics, a contraband item. Thus, despite the fact that the sniff tells the authorities something about the contents of the luggage, the information obtained is limited. This limited disclosure also ensures that the owner of the property is not subjected to the embarrassment and inconvenience entailed in less discriminate and more intrusive investigative methods.

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⁶³ 462 U.S. 696, 719 (1983) (Brennan, J., concurring) (observing that the canine sniff issue had not been argued or briefed to the Court and that consideration of the canine sniff was unnecessary because the Court had concluded that detention of Place's luggage had exceeded permissible guidelines under *Terry*).

⁶⁴ *Id.* at 709–10 (majority opinion). In addition, the detectives' failure to provide Place with clear directions about the storage and return of his bags exacerbated the intrusiveness of the seizure. *Id.* at 710.

⁶⁵ *Id.* at 719 (Brennan, J., concurring) (observing that Place "did not contest the validity of sniff searches *per se*" at trial, "[t]he Court of Appeals did not reach or discuss the [sniff] issue," and that the question of canine sniffs had not been briefed or argued to the Court (internal quotation marks omitted)); *see also id.* at 723 (Blackmun, J., concurring) ("Neither party has had an opportunity to brief the issue, and the Court grasps for the appropriate analysis of the problem. Although it is not essential that the Court ever adopt the views of one of the parties, it should not decide an issue on which neither party has expressed any opinion at all.").

In these respects, the canine sniff is *sui generis*. We are aware of no other investigative procedure that is so limited both in the manner in which the information is obtained and in the content of the information revealed by the procedure. Therefore, we conclude that the particular course of investigation that the agents intended to pursue here—exposure of respondent's luggage, which was located in a public place, to a trained canine—did not constitute a "search" within the meaning of the Fourth Amendment.

While the *Place* Court's failure to request briefs and argument concerning the canine sniff issue is certainly surprising, the Court's refusal to consider the debate that had percolated through the lower courts prior to *Place* is perplexing.⁶⁷ The Court cited not a single case, transforming its pronouncement that a canine sniff is "sui generis," and therefore not a "search," into an unassailable judicial

⁶⁶ Id. at 707 (majority opinion).

⁶⁷ As the Royer plurality observed, the various Courts of Appeals had disagreed about whether a canine sniff of luggage was a "search." Royer, 460 U.S. at 505 n.10. The pre-Place lower courts divided into two camps: (1) those that required reasonable suspicion to support a canine sniff, see United States v. Beale, 674 F.2d 1327, 1335 (9th Cir. 1982), vacated, 463 U.S. 1202 (1983) (vacating the judgment and remanding for further consideration in light of United States v. Place), and (2) those that concluded a canine sniff was not a search, therefore no suspicion was required. See, e.g., United States v. Sullivan, 625 F.2d 9, 13 (4th Cir. 1980). The Second Circuit even coined the amusing phrase "canine cannabis connoisseur" to describe drug-detection dogs. United States v. Bronstein, 521 F.2d 459, 460 (2d Cir. 1975). The military was also dealing with canine sniff issues involving even clearer privacy concerns, such as the canine sniff of barracks, lockers, and on-base residences. The Military Rule of Evidence 313(b) required reasonable suspicion to conduct unscheduled "shakedown" inspections, which could include "any reasonable or natural technological aid," such as a canine sniff, of individual living areas and lockers. See MIL. R. EVID. 313(b) ("Inspections may utilize any reasonable natural or technological aid and may be conducted with or without notice to those inspected."); see also James P. Pottorff, Jr., Canine Narcotics Detection in the Military: A Continuing Bone of Contention?, ARMY LAW., July 1984, at 73, 77. Two pre-Place decisions issued by the U.S. Air Force Court of Military Review reflect the tension between the military tribunal decisions on this issue. In United States v. Peters, a canine sniff of the defendant's car was performed by a drug-detection dog as a part of a random gate inspection. 11 M.J. 901, 902 (A.F. Ct. Crim. App. 1981). After a suspected bag of marijuana and unknown pills were found, the handler and canine went to the accused's onbase residence, where the dog alerted at a front window. Id. At the time of the alert, the dog's "hind feet were on the ground in the yard and [its] front paws were on the window sill." Id. The court determined that the canine sniff was a search, despite the fact that the window was slightly open. Id. at 904. In contrast, in United States v. Guillen, the court determined that a canine sniff conducted at the only door of the accused's residence was not a search. 14 M.J. 518, 519, 521 (A.F. Ct. Crim. App. 1982). In view of the split on the canine sniff issue and the clear indications that drug-detection sniffs could be used in ways that implicate more serious privacy concerns, the Place Court's failure to cite even a single case and, instead, issue a global pronouncement on this important legal question is therefore perplexing.

monolith.⁶⁸ After *Place*, it appeared that if the original seizure of the individual or the individual's personal property was supported by reasonable suspicion, then the ensuing canine sniff was permissible because the sniff, by definition, was not a search.

Soon after *Place*, the Court considered another case that would have important implications in the canine sniff area. In *United States v. Jacobsen*, the Court considered whether warrantless field testing of a white powder to determine whether it was cocaine violated the Fourth Amendment when that powder was discovered by Federal Express employees and then turned over to the U.S. Drug Enforcement Administration (DEA).⁶⁹ Significant to the canine sniff question, the field test was able to identify the powder as cocaine but was unable to determine whether the powder was any other substance.⁷⁰

The Court granted certiorari to consider two separate issues: (1) the scope of the private search doctrine, ⁷¹ and (2) the warrantless field testing of suspected contraband. In an opinion authored by Justice Stevens, the Court agreed that field testing of the white powder was not a search under the Fourth Amendment because it compromised no legitimate interest in privacy. ⁷² The Court explained that government conduct that established only whether a substance was cocaine and revealed "no other arguably 'private' fact" compromised no legitimate privacy interest. ⁷³ The Court's conclusion was "dictated" by *Place* because field testing, like a canine sniff, revealed nothing about noncontraband items. ⁷⁴

⁶⁸ See Katz & Golembiewski, *supra* note 38, at 741 (arguing that in *Place* "[t]here was no authority offered for the broad conclusions which have controlled the law for the past twenty-three years; moreover, the unsolicited decision of the issue has served to preclude it from ever being considered fully").

⁶⁹ United States v. Jacobsen, 466 U.S. 109, 111 (1984).

⁷⁰ *Id.* at 122.

⁷¹ The Court explained that, under circumstances where the authorities simply "reexamine" the materials discovered by a private actor, *id.* at 119, the government has not intruded on any expectation of privacy that "has not already been frustrated." *Id.* at 117.

⁷² Id. at 123 (explaining that Congress had criminalized the "private" possession of cocaine, making its possession illegitimate).

⁷³ *Id.* The Court expressly limited its discussion to contraband. *Id.* at 123 n.23.

⁷⁴ *Id.* at 123–24. As Justice Stevens explained, "[t]he field test at issue could disclose only one fact previously unknown to the agent—whether or not a suspicious white powder was cocaine. It could tell him nothing more, not even whether the substance was sugar or talcum powder." *Id.* at 122.

In an observation that may have important modern implications, the *Jacobsen* Court also noted that "[h]ere, as in *Place*, the likelihood that official conduct of the kind disclosed by the record will actually compromise any legitimate interest in privacy seems *much too remote* to characterize the testing as a search subject to the Fourth Amendment." This "remoteness" consideration from *Jacobsen* is potentially significant in analyzing canine sniffs in general, and the home sniff, in particular. This issue is considered in Part III.A, which discusses our modern understanding of error rates associated with canine sniffs and whether, in view of these acknowledged error rates, the risk of uncovering private, noncontraband information during the ensuing search can truly be characterized as "remote."

Although *Place*'s conclusions regarding the unique diagnostic capabilities of canine sniffs have been criticized as inaccurate, ⁷⁶ the Court recently ensured the ongoing legal vitality of the canine sniff technique in *Illinois v. Caballes*. ⁷⁷ *Caballes* involved a routine traffic stop for speeding. ⁷⁸ Although there was no suspicion that Caballes was transporting drugs, a drug interdiction team member, who had arrived at the traffic stop while the ticket was being written, walked a drug-detection dog around Caballes's vehicle. The dog alerted on the trunk, which the officers opened and discovered the marijuana for which Caballes was arrested. ⁷⁹

Important to the *Caballes* Court in upholding the validity of the canine sniff was both the legality of the initial traffic stop⁸⁰ and the fact that the canine sniff process had not extended the length of

⁷⁵ Id. at 124 (emphasis added).

⁷⁶ See George M. Dery III, Who Let the Dogs Out? The Supreme Court Did in Illinois v. Caballes by Placing Absolute Faith in Canine Sniffs, 58 RUTGERS L. REV. 377, 403–06 (2006) (addressing the various factors affecting the accuracy of drug-detector dogs); see also Illinois v. Caballes, 543 U.S. 405, 411 (2005) (Souter, J., dissenting) (observing that "[t]he infallible dog, however, is a creature of legal fiction"). Justice Souter cataloged lower court cases in which surprisingly high error rates failed to result in a finding of unreliability. See id. at 412.

⁷⁷ 543 U.S. 405, 409 (2005). The *Caballes* majority opinion was authored by Justice Stevens, who also wrote the majority opinion in *United States v. Jacobsen*, 466 U.S. 109 (1984). *Caballes* was a six-to-two decision in which Chief Justice Rehnquist did not participate.

⁷⁸ Caballes, 543 U.S. at 406.

⁷⁹ *Id*.

⁸⁰ *Id.* at 407 (observing that "[h]ere, the initial seizure of respondent when he was stopped on the highway was based on probable cause and was concededly lawful").

Caballes's detention beyond the time necessary to write the ticket. In upholding the legality of the canine sniff, the Court relied on *Jacobsen*'s premise that a person lacks a legitimate expectation of privacy in contraband. Through some arguably loose language, the Court may have expanded the *Jacobsen* premise in a manner that could have a real impact on the home-sniff issue. The *Caballes* Court first quoted *Jacobsen* for the proposition that "[o]fficial conduct that does not 'compromise any legitimate interest in privacy' is not a search subject to the Fourth Amendment." The *Caballes* Court then, in an apparent expansion of *Jacobsen*, stated that "any interest in possessing contraband cannot be deemed 'legitimate."

Returning for a moment to the *Jacobsen* opinion, the focus there was on the distinction between contraband and noncontraband information. As the *Jacobsen* Court explained, "[a] chemical test that merely discloses whether or not a particular substance is cocaine does not compromise any legitimate interest in privacy." The *circumstances* that made the field testing possible (the private search issue) were treated separately by the *Jacobsen* Court. Therefore, the focus in this portion of the *Jacobsen* opinion was on the *accuracy* of the information to be gained by the field testing, not the circumstances under which this investigative tool might be used. The *Caballes* Court, on the other hand, focused on more than just the contraband/noncontraband nature of the information revealed. By observing that "any interest in possessing contraband [is not]

⁸¹ *Id.* at 407 ("A seizure that is justified solely by the interest in issuing a warning ticket to the driver can become unlawful if it is prolonged beyond the time reasonably required to complete that mission.").

⁸² See Jacobsen, 466 U.S. at 122 (observing that "[t]he concept of an interest in privacy that society is prepared to recognize as reasonable is, by its very nature, critically different from the mere expectation, however well justified, that certain facts will not come to the attention of the authorities").

⁸³ Caballes, 543 U.S. at 408 (quoting Jacobsen, 466 U.S. at 123).

⁸⁴ Id. (emphasis added).

⁸⁵ Jacobsen, 466 U.S. at 122.

⁸⁶ Id. at 123.

⁸⁷ Id. at 118 (finding that the DEA agents' invasions of privacy involved "two steps": (1) the removal of ziplock bags from a damaged package and a duct-taped tube within the package, both having been previously opened by Federal Express employees, and the removal of "a trace of powder" from one of the ziplock bags, and (2) the chemical field test of the powder).

⁸⁸ See id. at 123 (observing that "even if the results are negative-merely disclosing that the substance is something other than cocaine—such a result reveals nothing of special interest").

legitimate," the Caballes Court may be suggesting that the circumstances of contraband possession are irrelevant.⁸⁹ support for this reorientation can be found in the Caballes majority's explanation that the opinion was "entirely consistent" with Kyllo v. United States in that "[c]ritical to [the Kyllo] decision was the fact that the [thermal-imaging] device was capable of detecting lawful activity—in that case, intimate details in a home, such as 'at what hour each night the lady of the house takes her daily sauna and bath." The key question after *Caballes* is whether the majority's reference to Kyllo was simply illustrative of the special legal significance attributed to an investigative technique that reveals only contraband, but no noncontraband information, or instead, if *Caballes* is intended to signal the Court's willingness to exclude any consideration of the *circumstances* of the contraband's discovery. This would mean that a person lacks any expectation of privacy in contraband, even contraband that is secreted in the person's private residence.

As a final point, the *Caballes* Court again used the *sui generis* terminology to describe the canine sniff and cited to both *Place* and *Indianapolis v. Edmond*, a case involving the canine sniff of a vehicle's exterior at a drug interdiction checkpoint. In *Edmond*, although the checkpoint seizure itself was found to violate the Fourth Amendment, the Court refused to view the canine sniff of the vehicle as a "search." While the canine sniff was not "transformed" into a search simply because the seizure of Edmond's vehicle at the checkpoint was unreasonable, the *Edmond* Court did not suggest that the search and the seizure issues should be analytically severed from one another. In fact, the *Edmond* Court's holding is to the contrary. Because the narcotics interdiction checkpoint did not meet the Court's requirements for suspicionless, administrative-type seizures, police were required to establish individualized suspicion to stop a vehicle

⁸⁹ See Caballes, 543 U.S. at 408 (emphasis added) (internal quotation marks omitted).

⁹⁰ Id. at 409–10 (quoting Kyllo v. United States, 533 U.S. 27, 38 (2001)).

^{91 531} U.S. 32, 35 (2000).

⁹² *Id.* at 47 (observing that "[w]hen law enforcement authorities pursue primarily general crime control purposes at checkpoints such as here, . . . stops can only be justified by some quantum of individualized suspicion").

 $^{^{93}}$ Id. at 40 ("The fact that officers walk a narcotics-detection dog around the exterior of each car at the Indianapolis checkpoints does not transform the seizure into a search. . . . Just as in *Place*, an exterior sniff of an automobile does not require entry into the car and is not designed to disclose any information other than the presence or absence of narcotics.").

⁹⁴ Id.

for investigation.⁹⁵ The effect, therefore, is that no canine sniff of a *moving* vehicle would be permissible without first showing the appropriate quantum of suspicion to stop the vehicle.

Left unanswered after *Caballes* and *Edmond* is whether, at least in the vehicle context, the seizure and the search issues *could* be analytically severed. The practical effect of disconnecting the seizure from the search would be to make it possible for police to run drugdetection dogs through public parking lots to conduct suspicionless sniffs of parked vehicles. Since no seizure would be necessary to investigate a parked vehicle and a canine sniff of a vehicle is not a "search," suspicionless, dragnet searches would therefore become possible. Further, if the Court permits the disconnection of the seizure and search issues in the vehicle context, it sets the stage for arguing that a home sniff would also be permissible. Since it could be argued that no seizure occurs when a detection dog performs a sniff from the front-door curtilage area of a private home, the *Place* opinion would make most canine sniffs of the home judicially unreachable.

Several points bear emphasis when examining the *Place*, *Jacobsen*, and *Caballes* decisions and their potential applicability to canine sniffs conducted outside of a home. These cases were implicitly, and in some cases explicitly, based on three essential, and interrelated, legal and factual observations that will be discussed below: (1) the lawfulness of the antecedent seizure that made the canine sniff possible, (2) the sniffs occurred under circumstances involving lesser expectations of privacy, and (3) the sniffed item had been disconnected from the person of the suspect at the time of the sniff.

1. Lawful Antecedent Seizure

First, in each of the above-referenced cases, the legality of the police investigative tactic (i.e., canine sniff and field testing) implicitly turned on the lawfulness of the initial seizure of the item or

⁹⁵ See id. at 47.

⁹⁶ Cf. Nina Paul & Will Trachman, Fidos and Fi-dont's: Why the Supreme Court Should Have Found a Search in Illinois v. Caballes, 9 BOALT J. CRIM. L. 1, 20 (2005) (observing that "[g]iven the perhaps overzealous use of dog sniffs currently, the government could easily fall down the slippery slope of using dog sniffs regularly and anywhere").

⁹⁷ See Illinois v. Caballes, 543 U.S. 405, 422 (2005) (Ginsburg, J., dissenting) (warning that "[t]oday's decision . . . clears the way for suspicionless, dog-accompanied drug sweeps of parked cars along sidewalks and in parking lots").

person. 98 While the Court implicitly tied its approval of the police investigative tool at issue to the lawfulness of the seizure, the Court failed to expressly precondition the tool's use on the lawfulness of the first step, the "seizure." By making the antecedent justification requirement only an implicit precondition in these decisions, the Court has made it possible for lower courts to disconnect the seizure from the sniff altogether.⁹⁹ The resulting softening and attenuation between these interrelated legal issues 100 has important implications for the home-sniff question. As a factual matter, no control over the residence, in other words, no "seizure," need be taken in order to conduct the sniff. By oversimplifying *Place* and *Jacobsen* and focusing exclusively on the police investigative technique, courts have sidestepped the antecedent justification requirement essential to a lawful seizure, in other words, the *context* in which the investigative tactic is used. In his Jacobsen dissent, Justice Brennan warned of the danger that results from this sort of oversimplification.¹⁰¹ cautioned that exempting any "class of surveillance technique" as categorically outside the definition of "search" or "seizure" without consideration of the "context" in which the tactic was used could lead

⁹⁸ Caballes, 543 U.S. at 409 (finding that a canine sniff during an otherwise lawful traffic stop was permissible even without any suspicion that driver was transporting drugs in vehicle); United States v. Jacobsen, 466 U.S. 109, 120–21 (1984) ("While the agents' assertion of dominion and control over the package and its contents did constitute a 'seizure,' . . . that seizure was not unreasonable" (footnote omitted)); United States v. Place, 462 U.S. 696, 710 (1983) ("In short, we hold that the detention of respondent's luggage in this case went beyond the narrow authority possessed by police to detain briefly luggage reasonably suspected to contain narcotics.").

⁹⁹ See, e.g., People v. Jones, 755 N.W.2d 224, 229 (Mich. Ct. App. 2008) ("The high court's *fleeting reference* to a 'public place' in *Place* simply indicated, at most, that the luggage containing contraband was in an area in which the police and the canine were lawfully present." (emphasis added)).

¹⁰⁰ Cf. United States v. Jeffers, 342 U.S. 48, 52 (1951). In *Jeffers*, the government argued that search and seizure were severable legal issues in a drug prosecution. *Id.* The Court disagreed, explaining that "[w]e do not believe the events are so easily isolable. Rather they are bound together by one sole purpose—to locate and seize the narcotics of respondent. The search and seizure are, therefore, incapable of being untied." *Id.*

¹⁰¹ Jacobsen, 466 U.S. at 137 (Brennan, J., dissenting). As Justice Brennan cautioned:

What is most startling about the Court's interpretation of the term "search," both in this case and in *Place*, is its exclusive focus on the nature of the information or item sought and revealed through the use of a surveillance technique, rather than on the context in which the information or item is concealed. . . . [T]he Court adopts a general rule that a surveillance technique does not constitute a search if it reveals only whether or not an individual possesses contraband.

to dragnet-style, or even selective, applications of the surveillance tactic. 102

2. Reduced Expectation of Privacy

Second, police investigation of the suspicious items in the abovereferenced cases took place at locations, or under circumstances, where the suspects had lesser expectations of privacy. 103 Lower courts have seized on what they view as the "public location" of canine home-sniffs as a primary justification for allowing them. 104 As these courts have explained, the canine sniff of a home is also conducted from a public location, such as a common hallway in front of an apartment or the front porch area of a freestanding residence. Therefore, they argue, the public location from which the sniff is conducted makes it essentially identical to the canine sniff performed in *Place*. This deceptively plausible argument misses the point. In both *Place* and *Caballes*, the canine sniff was performed under circumstances in which the suspect had a lesser expectation of privacy; these cases did not turn on the lawfulness of the location of the officer's feet (or the dog's paws). While public location may be important in evaluating expectations of privacy, location alone cannot be understood as the sole circumstance-driven requirement from these Supreme Court decisions. When the analysis is refocused onto the reduced expectation of privacy involved in the circumstances under which the investigative tactic was used, these decisions stand in sharp contrast to the heightened privacy interests associated with the home. 105

¹⁰² See id.

¹⁰³ See Place, 462 U.S. at 707 (concluding that "the particular course of investigation that the agents intended to pursue here—exposure of respondent's luggage, which was located in a public place, to a trained canine—did not constitute a 'search'" (emphasis added)); see also Florida v. Royer, 460 U.S. 491, 493–94 (1983) (applying this standard to an airport).

¹⁰⁴ See, e.g., Stabler v. State, 990 So. 2d 1258, 1259 (Fla. Dist. Ct. App. 2008) (allowing a canine sniff at the front door of the defendant's apartment because the front door was "open to public access and to a common area"); *Jones*, 755 N.W.2d at 229 (explaining that where the canine sniff was conducted at the front door of the defendant's private home, there is "no reasonable expectation of privacy at the entrance to property that is open to the public, including the front porch").

¹⁰⁵ See Kyllo v. United States, 533 U.S. 27, 34 (2001) (observing that the search of the interior of a home represents "the prototypical and hence most commonly litigated area of protected privacy").

3. Disconnection from the Suspect

Third, as a further observation, in each of the above-referenced cases the suspicious item was not on the person of the suspect at the time the police investigative technique was used. 106 Disconnection therefore reinforces the first and second organizing principles. In other words, disconnection from the owner could be reflective of the fact that the initial police access to the item that made the surveillance tactic possible (the "seizure") was supported by an appropriate quantum of suspicion. Additionally, when the item is disconnected from the person of the suspect, as was the case in both Place and Caballes, further investigation, in the form of a canine sniff, may be less invasive and offensive and therefore less intrusive. The disconnection becomes part of the circumstances of the sniff, a fact that suggests that the canine sniff was not so intrusive that it violated the suspect's Fourth Amendment interests. 108 With a canine homesniff, no disconnection of the person from the person's home is necessary. Therefore, potentially intimidating or offensive encounters between a home's occupants and an investigating canine team is increasingly likely. 109

B. Focus on Privacy: Sense-Enhancing Technology Directed at the Home

While the extent to which drug-detection dogs will or should be viewed as "technology" remains unresolved, a canine sniff certainly

¹⁰⁶ Illinois v. Caballes, 543 U.S. 405, 406 (2005) (considering a drug-detection sniff conducted while Caballes was seated in a police vehicle); *Jacobsen*, 466 U.S. at 120 n.18 (stating that "respondents had entrusted possession of the items to Federal Express"); *Place*, 462 U.S. at 696 (explaining that after Place identified luggage as his, DEA agents took the luggage from LaGuardia Airport to Kennedy Airport in order to subject the bags to a "sniff test' by a trained narcotics detection dog").

 $^{^{107}}$ Cf. Doe v. Renfrow, 631 F.2d 91, 94 (7th Cir. 1980) (Swygert, J., dissenting) (arguing that a canine sniff of a person is more intrusive than a sniff of "inanimate and unattended objects").

¹⁰⁸ See, e.g., Horton v. Goose Creek Indep. Sch. Dist., 690 F.2d 470, 477 (5th Cir. 1982) (contrasting the sniff of a schoolchild's person with a luggage sniff at an airport and observing that "[o]ther circuits have emphasized the minimal humiliation entailed in dogs sniffing unattended luggage").

¹⁰⁹ See, e.g., Langley v. State, 735 So. 2d 606, 607 (Fla. Dist. Ct. App. 1999) (detailing that a suspect encountered six officers and a police dog while sitting on the steps of her mobile home, and "she was afraid of the dog").

represents sense enhancement of the human sense of smell.¹¹⁰ Accordingly, courts faced with a warrantless sniff of a residence must either rely on *Kyllo v. United States*¹¹¹ or reject the decision's applicability.¹¹² Therefore, careful analysis of *Kyllo* is essential.

In *Kyllo*, the defendant moved to suppress evidence obtained pursuant to a search warrant issued in reliance on the results of a thermal-imaging scan ¹¹³ of his home. The scan, conducted from the lawful vantage point of a public street, revealed temperature gradients that were consistent with high-intensity lights used in an indoor marijuana growing operation. ¹¹⁴ In finding that the warrantless use of the thermal imager violated Kyllo's reasonable expectation of privacy, the Court's central legal premise was that "the Fourth Amendment draws 'a firm line at the entrance to the house" that "must be not only firm but also bright." ¹¹⁵ Justice Scalia, writing for the majority, acknowledged that expectations of privacy had been impacted by technological advances, ¹¹⁶ and framed the issue as "what limits there are upon this power of technology to shrink the realm of

¹¹⁰ In *Place*, Justice Brennan pointed out that "[a] dog adds a new and previously unobtainable dimension to human perception" and therefore represents an additional intrusion into privacy. *Place*, 462 U.S. at 719–20 (Brennan, J., concurring).

^{111 533} U.S. 27 (2001). In fact, the only post-*Kyllo* case that concludes that a canine home-sniff is a "search" under the Federal Constitution is *State v. Rabb*, 920 So. 2d 1175 (Fla. 4th Dist. Ct. App.), *cert. denied*, 549 U.S. 1052 (2006). *United States v. Thomas* is a pre-*Kyllo* case, but its reasoning is consistent with *Kyllo*'s concerns about gaining information about the interior of a home. United States v. Thomas, 757 F.2d 1359, 1367 (2d Cir. 1985) (observing that "[w]ith a trained dog police may obtain information about what is inside a dwelling that they could not derive from the use of their own senses").

¹¹² See supra note 7 (listing courts that find a canine sniff of a private residence is not a "search" under the Federal Constitution); see also Rabb, 920 So. 2d at 1190 (describing the reliance on the *Place/Jacobsen* binary search approach as representing a "fundamental philosophical divide" from the privacy-based analysis of the *Rabb* majority).

¹¹³ A thermal imager is a handheld device, similar to a video camera, that detects infrared radiation. *Kyllo*, 533 U.S. at 29. The device detects only heat emanating from the exterior of the home, however, and is not able to penetrate walls or windows. *Id.* at 41 n.1 (Stevens, J., dissenting).

 $^{^{114}}$ Id. at 30 (majority opinion). "The scan showed that the roof over [Kyllo's] garage and a side wall of [his] home were relatively hot compared to the rest of [his] home and substantially warmer than [his neighbors' residences]." Id.

¹¹⁵ Id. at 40.

¹¹⁶ *Id.* at 33–34 (observing that "[i]t would be foolish to contend that the degree of privacy secured to citizens by the Fourth Amendment has been entirely unaffected by the advance of technology"). The majority pointed to the aerial surveillance cases as examples of technology (human flight) that had enabled police to view uncovered areas of the home or curtilage that had historically gone unobserved. *Id.* at 34.

guaranteed privacy."¹¹⁷ The Court concluded that "obtaining by sense-enhancing technology any information regarding the interior of the home that could not otherwise have been obtained without physical 'intrusion into a constitutionally protected area'... constitutes a search—at least where (as here) the technology in question is not in general public use."¹¹⁸ While the technology at issue in *Kyllo* was "relatively crude," the majority underscored the danger that "advancing technology" would pose to privacy interests.

Kyllo sparked a vigorous dissent, authored by Justice Stevens and joined in by three other Justices. The dissent viewed the thermalimaging device as purely passive technology that did no more than measure radiant heat emanating from Kyllo's home—not a more sophisticated device that could peer through walls. The dissenting Justices argued that there was a meaningful constitutional distinction between technology that gave the listener "direct access" to information about the interior of the home and technology that permitted police officers to draw "inferences" based upon "information in the public domain." In response, the majority explained that while inferencing alone was not a search, the thermalimaging device provided information that allowed police to infer that contraband was present. In other words, the thermal scan was a "search" because it made technology-assisted inferencing about the interior of a home possible.

Two interpretations concerning the scope of *Kyllo*'s prohibition on technology-assisted inferencing are generated: (1) the decision applies to all nonroutine technology-assisted surveillance of the home

¹¹⁷ Id

¹¹⁸ *Id.* (citation omitted) (quoting Silverman v. United States, 365 U.S. 505, 512 (1961))

¹¹⁹ *Id.* at 35–36 (observing that "[r]eversing [*Katz*'s] approach would leave the homeowner at the mercy of advancing technology–including imaging technology that could discern all human activity in the home").

¹²⁰ *Id.* at 41 (Stevens, J., dissenting) (arguing that "[t]here is, in my judgment, a distinction of constitutional magnitude between 'through-the-wall surveillance' that gives the observer or listener direct access to information in a private area, on the one hand, and the thought processes used to draw inferences from information in the public domain, on the other hand"). Justice Stevens also described the inferences as "indirect deductions," *id.*, and the "mental process of analyzing data obtained from external sources." *Id.* at 49.

¹²¹ *Id.* at 37 n.4 (majority opinion) ("We say such measurement is a search; the dissent says it is not, because an inference is not a search. We took that to mean that, since the technologically enhanced emanations had to be the basis of inferences before anything inside the house could be known, the use of the emanations could not be a search.").

because "any information" regarding the interior of the home is protected, ¹²² or (2) the decision limits only technology-assisted inferencing that might reveal both contraband and noncontraband information about the home's interior. ¹²³ In his *Kyllo* dissent, Justice Stevens expressed concern that the Court had intended the first interpretation rather than the second. He argued that the majority's proposed rule would bar mechanical devices that could detect only the presence of an illegal substance or activity, but would reveal no noncontraband information, ¹²⁴ a clear reference to the Court's favorable treatment of detection dogs in *Place*.

Justice Stevens's *Kyllo* dissent certainly foretells the inevitable intersection of the canine home-sniff question and the scope of *Kyllo*'s limitations on sense-enhancing technology directed at the home. Interestingly enough, it may be Justice Stevens's *Kyllo* interpretation that the Court ultimately embraces. In 2005, Justice Stevens authored the *Caballes* opinion, which permitted the suspicionless canine sniff of a lawfully stopped vehicle. ¹²⁵ In dicta, Justice Stevens explained that the suspicionless use of a canine sniff to investigate the exterior of Caballes's vehicle was entirely consistent with *Kyllo* because the sniff revealed no lawful activities or information. ¹²⁶ By pressing *Kyllo*'s second explanation concerning the contraband/noncontraband nature of the information discovered, the Court appears ready to reorient *Kyllo* to bar only warrantless use of sense-enhancing technology that might *also* reveal noncontraband information.

¹²² *Id.* at 34 (observing that "[w]e think that obtaining by sense-enhancing technology any information regarding the interior of the home . . . constitutes a search" (citation omitted)). For discussion of so-called "routine" technology, see *infra* notes 325–42 and accompanying text.

¹²³ *Id.* at 38 (observing that the thermal-imaging scan "might disclose, for example, at what hour each night the lady of the house takes her daily sauna and bath–a detail that many would consider 'intimate'").

¹²⁴ *Id.* at 47 (Stevens, J., dissenting) (arguing that the majority's rule was "far too broad" because it would embrace "mechanical substitutes" for detection dogs, a view that would be inconsistent with *Place*'s conclusion that, because a canine sniff discloses only the presence of narcotics, it is not a "search"). The dissent pointed out the seeming inconsistency between *Kyllo* and *Place*'s holding and argued that this inconsistency must mean that "sense-enhancing equipment that identifies nothing but illegal activity is not a search either." *Id.* at 47–48.

¹²⁵ Illinois v. Caballes, 543 U.S. 405, 409 (2005).

¹²⁶ See Caballes, 543 U.S. at 410 ("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."); see also supra note 90 and accompanying text.

Additionally, the Court has considered the warrantless use of other sense-enhancing technology directed at the home prior to Kyllo, cases that should prove helpful in analyzing canine home-sniffs. One case in particular, *United States v. Karo*, ¹²⁷ which was cited favorably in Kyllo, provides insight into the home-sniff issue. Karo involved the use of beeper technology ¹²⁸ to track the movement of cans filled with chemicals used in the manufacture or refinement of illegal street drugs after the cans had been hidden inside a private home. 129 The Karo Court concluded that warrantless monitoring of the beeper violated the Fourth Amendment because the beeper provided "information" about the interior of the home that could not have been obtained through observation from outside the home's curtilage. 130 The Court analogized the warrantless monitoring to surreptitious physical entry by DEA agents to search the home to determine whether the can of ether was still present, a clearly impermissible surveillance technique. 131

Karo is potentially significant because it is a post-Jacobsen case, yet the decision uses expansive language to describe the protection from police discovery afforded to property hidden in a private residence, language that is arguably inconsistent with the Jacobsen premise. Karo states that the Fourth Amendment protects a person from police discovery of "information" about the interior of the home, ¹³² "a critical fact" about the interior of the premises, ¹³³ whether a "particular article" is located within the home, ¹³⁴ and concerns about monitoring "property" that has been withdrawn from

^{127 468} U.S. 705 (1984).

¹²⁸ "A beeper is a radio transmitter, usually battery operated, which emits periodic signals that can be picked up by a radio receiver." United States v. Knotts, 460 U.S. 276, 277 (1983).

¹²⁹ Karo, 468 U.S. at 708-10.

¹³⁰ Karo, 468 U.S. at 715. Although the government obtained a warrant authorizing the installment and monitoring of the beeper, the warrant was later invalidated, and the government did not appeal that ruling. *Id.* at 710. Therefore, the Court was asked to consider whether a warrant was required either to install or monitor the beeper. *Id.* at 711. On the installation issue, Justice White, speaking for five other Justices, including Chief Justice Burger, concluded that no warrant was required because the installation created no more than the "potential for an invasion of privacy." *Id.* at 712. The presence of the beeper created "at most" a "technical trespass," the existence of which would not be determinative on the Fourth Amendment question. *Id.*

¹³¹ Id. at 715.

¹³² Id. at 710.

¹³³ Id. at 715.

¹³⁴ Id. at 716.

public view into a home. 135 While some of these references were simply descriptive of *Karo*'s facts concerning monitoring of the home to determine whether the can of ether was still present, 136 other language in *Karo* appears to have broad applicability and may be relevant to the canine home-sniff analysis. In particular, the *Karo* Court noted:

We cannot accept the Government's contention that it should be completely free from the constraints of the Fourth Amendment to determine by means of an electronic device, without a warrant and without probable cause or reasonable suspicion, whether a particular article—or a person, for that matter—is in an individual's home at a particular time. Indiscriminate monitoring of property that has been withdrawn from public view would present far too serious a threat to privacy interests in the home to escape entirely some sort of Fourth Amendment oversight. 137

This language is expansive enough to bar monitoring for *any* type of item, including contraband. The question then is whether this is a supportable interpretation of *Karo*'s reasoning. Perhaps it is. Certainly, there is nothing in *Karo*'s expansive discussion to suggest that contraband hidden in the home should be *excluded* from the Court's treatment of property "withdrawn from public view," and when the Court has intended to limit its holding to certain types of property, it has certainly made its intentions known. ¹³⁸

As an additional point, the *Karo* Court referenced the use of technology to locate whether a particular person is in a home at a particular time. While knowing a person's location is obviously helpful in an ongoing criminal investigation, the location of a person who has an outstanding arrest warrant is of critical importance to the police. In a sense, the fugitive is like contraband: (1) with an arrest warrant, police can enter the suspect's home to arrest ("seize") him, ¹⁴⁰ and (2) with a search warrant, police are authorized to enter a

¹³⁵ *Id*.

¹³⁶ Id. at 710.

¹³⁷ Id. at 716 (emphasis added).

¹³⁸ See United States v. Jacobsen, 466 U.S. 109, 123 n.23 (1984) (expressly limiting the Court's discussion to "possession of contraband").

¹³⁹ See Karo, 468 U.S. at 716 (arguing against the use of police technology to determine, among other things, whether a particular person "is in an individual's home at a particular time").

¹⁴⁰ Payton v. New York, 445 U.S. 573, 603 (1980) (holding that "an arrest warrant founded on probable cause implicitly carries with it the limited authority to enter a dwelling in which the suspect lives when there is reason to believe the suspect is within").

third person's home in order to make the arrest. ¹⁴¹ *Karo* suggests that technology-based monitoring of a home to determine the location of a person, apparently even someone who could be lawfully seized upon discovery, would be impermissible. If police are barred from using technology directed at a home to locate such a person, then "information" about the home should also be interpreted to include contraband.

Interestingly enough, technology that would enable police to determine an individual's exact location already exists. A locational scanning device that would allow police to detect an individual's presence by identification of a computer chip embedded into the individual's driver's license is in the development stage. While it could be argued that this proposed technology would detect only the driver's license rather than the actual fugitive individual, this is an artificial distinction because, similar to a cell phone, people ordinarily keep their driver's license on their person or close at hand. An analogous inference arises when a drug-

¹⁴¹ See Steagald v. United States, 451 U.S. 204, 205 (1981). The search warrant required in *Steagald* was necessary to protect the privacy interests of a third person whose home was entered by police in order to arrest a fugitive, not the privacy interests of the fugitive. *Id.* at 222.

¹⁴² Radio Frequency Identification (RFID) technology uses radio frequencies to identify people or objects by reading a microchip in a wireless device from a distance, without making any physical contact or requiring a line of sight. DATA PRIVACY & INTEGRITY ADVISORY COMM., U.S. DEP'T OF HOMELAND SEC., No. 2006-02, THE USE OF RFID FOR HUMAN IDENTITY VERIFICATION 2, 5 (2006), available at http://www.dhs.gov/xlibrary/assets/privacy/privacy_advcom_12-2006_rpt_RFID.pdf; see also U.S. Dep't of Homeland Sec., Radio Frequency Identification (RFID): What Is It?, http://www.dhs.gov/files/crossingborders/gc_1197652575426.shtm (last visited May 19, 2010). When in the presence of an appropriate radio frequency, a microchip embedded in an object responds to the signal by sending information to a device capable of interpreting the microchip's signal. DATA PRIVACY & INTEGRITY ADVISORY COMM., supra, at 2. Differing RFID chips can be read from different distances: "[s]ome can only operate over a very short distance of a few centimeters or less, while others may operate at longer distances of several meters or more." Id.

¹⁴³ U.S. DEP'T OF HOMELAND SEC., PRIVACY IMPACT ASSESSMENT FOR THE USE OF RADIO FREQUENCY IDENTIFICATION (RFID) TECHNOLOGY FOR BORDER CROSSINGS 8 (2008) available at http://www.dhs.gov/xlibrary/assets/privacy/privacy_pia_cbp_rfid.pdf (identifying "tracking" as "a form of secondary use that exploits the uniqueness of the RFID number to associate a specific individual with specific places over time").

¹⁴⁴ The "Enhanced Driver's License (EDL)" is embedded with an RFID chip and capable of submitting information, including personal information documents. *Id.* at 2. Some states have already passed legislation addressing EDLs. *See, e.g.*, MICH. COMP. LAWS ANN. § 28.301–308 (LexisNexis 2010).

¹⁴⁵ See In re Application of U.S. for an Order Authorizing (1) Use of Pen Register and Trap and a Trace Device with Prospective Cell-Site Information, No. MISC. 09-104, 2009

detection dog alerts to a methyl benzoate source inside a private home. Like the inference that a fugitive is physically present when the fugitive's driver's license or cell phone is detected inside a private home, detection of methyl benzoate by a drug-detection dog enables police to infer that contraband is also present.

III

FRAMING THE CANINE HOME-SNIFF DEBATE

A. Should Place's Accuracy and Limited Intrusiveness Justifications Be Extended to Support Canine Sniffs of the Home?

This Court is forever adding new stories to the temples of constitutional law, and the temples have a way of collapsing when one story too many is added. 146

While permitting canine sniffs of the home is simply a newer application of the rule set out in *United States v. Place*, ¹⁴⁷ extending *Place* to this newer, residential factual setting requires courts to engage in an analogous sort of "construction" process to the one warned about above by Justice Jackson in his *Douglas v. City of Jeannette* concurrence. Courts, at times, extend a constitutional rule too far to be supported by the rule's doctrinal underpinnings, and when that happens, sometimes that floor, too, crashes in. The Court has shown a recent willingness to examine critically a constitutional rule that has been extended in a way that was incompatible with the rule's justifications. ¹⁴⁸ As discussed below, like the rule extension recently rejected in *Arizona v. Gant, Place*'s accuracy and limited-intrusiveness justifications do not support extending *Place* to include canine sniffs of the home.

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WL 1530195, at *4 (E.D.N.Y. Feb. 12, 2009) (finding that in the trap and trace context, cell phone locational technology—commonly known as "pinging" of a suspect's cell phone—was more precise than a global positioning system device and, therefore, required a showing of probable cause to obtain a court order because the suspect's movements inside the home could be tracked).

¹⁴⁶ Douglas v. City of Jeannette, 319 U.S. 157, 181 (1943) (Jackson, J., concurring).

^{147 462} U.S. 696 (1983).

¹⁴⁸ See infra note 344 and accompanying text.

¹⁴⁹ See Arizona v. Gant, 129 S. Ct. 1710, 1714 (2009); cf. Illinois v. Caballes, 543 U.S. 405, 410 (2005) (Souter, J., dissenting) (observing that "[w]hat we have learned about the fallibility of dogs in the years since *Place* was decided would itself be reason to call for reconsidering *Place*'s decision").

1. Sui Generis: ¹⁵⁰ A Limiting Descriptor now Used Expansively for Canine Sniffs

Prior to *Place*, it was believed that detection dogs did not make mistakes that resulted in invasions of privacy. In other words, when mistakes were made, they inured to the benefit of the suspect not the police. ¹⁵¹ In view of that era's background assumption concerning detection-dog accuracy, it is not surprising that the *Place* Court expressed complete confidence in the canine sniff technique; the Court's view was simply a reflection of what was accepted as true at the time. ¹⁵² Both *Place* and *Jacobsen* were premised, in large part, on the fact that the testing at issue—the canine sniff and the field testing of the white powder—was accurate. ¹⁵³ In language that has had important substantive ramifications for canine home-sniffs, the *Place* Court explained that the canine sniff is "sui generis" because the sniff was less intrusive than the traditional rummaging associated with a physical search and the sniff disclosed only limited information (the presence or absence of contraband). ¹⁵⁴ Therefore, accuracy and

¹⁵⁰ The term, "sui generis," is defined as: "Of its own kind or class; unique or peculiar." BLACK'S LAW DICTIONARY 1572 (9th ed. 2009).

¹⁵¹ Interestingly, several pre-*Place* lower courts specifically mentioned errors made by detection dogs, but viewed such mistakes as harmless since the mistakes were actually false *negatives* rather than false positives. *See*, *e.g.*, United States v. Beale, 674 F. 2d 1327, 1334 (9th Cir. 1982) (observing that "any mistake is one of omission, favoring the suspect"), *vacated*, 463 U.S. 1202 (1983) (vacating the judgment and remanding for further consideration in light of *United States v. Place*); *see also* United States v. Jodoin, 672 F.2d 232, 236 (1st Cir. 1982) (quoting dog handlers as saying "dogs are not foolproof, they are less accurate on hot muggy days, and drug traffickers have found ways to mask the odors of contraband to fool detection efforts" (internal quotation marks omitted)); United States v. Bronstein, 521 F.2d 459, 463 (2d Cir. 1975) (observing that while a detection dog "may be in error[,] her mistake favors the suspect").

¹⁵² See Thomas H. Peebles, The Uninvited Canine Nose and the Right to Privacy: Some Thoughts on Katz and Dogs, 11 GA. L. REV. 75, 100 (1976) (describing the fact that "mistakes work in favor of the suspect" as the key difference between canine sniffs and other forms of surveillance); Max A. Hansen, Comment, United States v. Solis: Have the Government's Supersniffers Come Down with a Case of Constitutional Nasal Congestion?, 13 SAN DIEGO L. REV. 410, 417 (1976) (observing that "[w]here the use of drug detection dogs is concerned, the first objection [regarding canine reliability] is lessened because a detector dog's mistake usually benefits the criminal").

¹⁵³ United States v. Jacobsen, 466 U.S. 109, 123 (1984) (observing that "[i]t is probably safe to assume that virtually all of the tests conducted under circumstances comparable to those disclosed by this record would result in a positive finding; in such cases, no legitimate interest has been compromised"); *see also* United States v. Place, 462 U.S. 696, 707 (1983) (observing that such a sniff discloses only "limited" information because it "discloses only the presence or absence of narcotics, a contraband item").

¹⁵⁴ See Place, 462 U.S. at 707.

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the harmlessness of any potential canine sniff miscue was the background understanding of the *Place* era.

In reality, however, error rates for drug-detection dogs undermine the Court's accuracy justification for treating the canine sniff as a sui generis practice. As Justice Souter's Caballes dissent reflects, drugdetection dogs are wrong a surprising amount of the time. 155 Additionally, courts have accepted as "reliable" detection dogs with even higher error rates than the cases referenced in Justice Souter's Caballes dissent 156 Evaluating Place's justifications and determining whether time has borne them out is made more difficult by the Court's use of *sui generis* language, however. In practice, lower courts have seized on the sui generis label but have forgotten the justifications that led the Court to use the label. 157 substantive weight to the sui generis descriptor, lower courts effectively ignore the accuracy justifications of Place and Jacobson by injecting probably cause-based language into their analyses of whether a given drug-detection dog is sufficiently reliable. ¹⁵⁸ For these courts, the question then boils down to whether there is simply a

¹⁵⁵ See Illinois v. Caballes, 543 U.S. 405, 411 (2005) (Souter, J., dissenting) ("The infallible dog, however, is a creature of legal fiction."). Justice Souter documented cases in which dogs were accepted by a court as reliable with an accuracy rate of 71%, see United States v. Kennedy, 131 F.3d 1371, 1378 (10th Cir. 1997), an error rate of 8% over a dog's entire career, see United States v. Scarborough, 128 F.3d 1373, 1378 n.3 (10th Cir. 1997), and an error rate of between 7% and 38%, see United States v. Limares, 269 F.3d 794, 797 (7th Cir. 2001). Caballes, 543 U.S. at 411–12.

¹⁵⁶ See, e.g., United States v. Koon Chung Wu, 217 F. App'x 240, 246 (4th Cir.) (accepting as "reliable" a drug-detection dog with demonstrated field accuracy of 67% and observing that "[b]ecause the probable cause-standard does not require that the officer's belief be more likely true than false, . . . an accuracy rate of sixty percent is more than reliable enough for Cody's alert to have established probable cause" (internal quotation marks omitted) (citation omitted)), cert. denied, 551 U.S. 1110 (2007); United States v. Cantrall, 762 F. Supp. 875, 882 (D. Kan. 1991) (accepting as reliable any detection percentage over fifty percent, along with dog training and certification in narcotics detection).

¹⁵⁷ See, e.g., State v. Jardines, 9 So. 3d 1, 5 (Fla. 3d Dist. Ct. App. 2008) ("Dogs have been used to detect scents for centuries all without modification or 'improvement' to their noses. That, perhaps, is why the Supreme Court describes them as 'sui generis' in Place."), review granted, 3 So. 3d 1246 (Fla. 2009); People v. Jones, 755 N.W.2d 224, 228 (Mich. Ct. App. 2008) (describing Place's holding as a "general categorization of canine sniffs as nonsearches").

¹⁵⁸ See Koon Chung Wu, 217 F. App'x at 246 (4th Cir.) ("Probable cause only requires a 'fair probability' that contraband will be found in a certain place, . . . and Cody's positive alerts to the packages in both searches clearly established a fair probability that the packages contained controlled substances, given his training and certification as a drugdetection dog" (internal citation omitted)).

"fair probability" that a given drug-detection dog will be correct, making the accuracy justification essentially disappear. 159

While the accuracy of the information revealed was arguably only an implicit basis for approving the canine sniff procedure in *Place*, ¹⁶⁰ the Court expressly endorsed the canine sniff technique based on its accuracy in *United States v. Jacobsen*. ¹⁶¹ Perhaps that should be the end of the *sui generis* discussion. The *Place* Court's accuracy assumption has not withstood the test of time, and that alone, at a minimum, should be enough to limit the technique's applicability to the circumstances previously articulated in *Place* and *Caballes*. ¹⁶³ In fact, as Justice Souter argued in his *Caballes* dissent, the canine sniff accuracy questions that have emerged since *Place* provide sufficient grounds to reconsider the *Place* decision itself. ¹⁶⁴ Analysis of *Place*'s justifications has been made unnecessarily slippery, however, because of the Court's use of the *sui generis* descriptor. ¹⁶⁵ It is difficult to meaningfully criticize, or even critique, a doctrine when an ambiguous label has been used to describe it. ¹⁶⁶ Therefore,

¹⁵⁹ See id. It is enough for some courts that the detection dog has been trained and certified, without any consideration of the dog's track record in the field. See United States v. Sundby, 186 F.3d 873, 876 (8th Cir. 1999) (observing that "a search warrant based on a drug dog's alert is facially sufficient if the affidavit states the dog is trained and certified to detect drugs").

¹⁶⁰ See United States v. Place, 462 U.S. 696, 707 (1983) (observing that because the sniff revealed "only the presence or absence of narcotics . . . [t]his limited disclosure also ensures that the owner of the property is not subjected to the embarrassment and inconvenience entailed in less discriminate and more intrusive investigative methods").

 $^{^{161}}$ See supra note 75 and accompanying text (comparing field testing at issue to a canine sniff).

 $^{^{162}}$ See Place, 462 U.S. at 707 (applying the canine sniff technique to luggage located in a public place).

¹⁶³ See Illinois v. Caballes, 543 U.S. 405, 410 (2005) (applying the canine sniff technique to a lawfully stopped vehicle).

¹⁶⁴ See id. at 410 (Souter, J., dissenting).

¹⁶⁵ An analogous sort of confusion has been generated by the Latin phrase, "res ipsa loquitur." Creekmore v. United States, 905 F.2d 1508, 1510 (11th Cir. 1990) (quoting Professor Prosser as stating that res ipsa loquitur "has been the source of so much trouble to the courts that the use of the phrase itself has become a definite obstacle to any clear thought, and it might better be discarded entirely" (internal quotation marks omitted)); see also Ballard v. N. British Ry. Co., 1923 S.L.T. 219, 226 (Scot. 1923) (observing that "[i]f this phrase had not been in Latin, no one would have called it a principle").

¹⁶⁶ Cf. State v. Wiegand, 645 N.W.2d 125, 138–39 (Minn. 2002) (Page, J., concurring) ("The U.S. Supreme Court dismisses the intrusiveness of a dog search by labeling it 'sui generis.' . . . This is convenient, but lacks any persuasive force given that the dog is used to detect the very thing the officers would look for themselves if the Fourth Amendment did not limit their ability to do so." (citation omitted)).

it may prove helpful to gain a better understanding of the Court's use of the *sui generis* label in other cases, particularly in the Fourth Amendment context, to determine whether the label should imply any meaning other than a descriptive one.

The term "sui generis" appears in 105 U.S. Supreme Court opinions, most of which are simply descriptive of the unique factual circumstances at issue that warranted one-of-a-kind treatment by the Court.¹⁶⁷ In fact, the term "sui generis" often appears in dissenting opinions as a pejorative—used to suggest that the majority had sidestepped the real issue in the case and, therefore, created a rule of almost no value in future decision making. 168 Although some lower courts have used Place's sui generis label as an "open sesame," 169 sui generis terminology is actually intended to convey both a narrowly defined rule and the narrow circumstances under which the rule is applicable. For example, in Dunaway v. New York, also a Fourth Amendment case, the Court refused to interpret *Terry* ¹⁷⁰ expansively to allow custodial interrogation of a suspect at the station house on the basis of reasonable suspicion, rather than probable cause. 171 As the Dunaway Court explained, Terry created a "special category" of Fourth Amendment seizures that were substantially less intrusive than a traditional arrest because the detention involved a "brief, on-thespot stop on the street," which the Court viewed as reasonable under its balancing test. Although *Terry* did not use the term *sui generis*, the Court in *Dunaway* used the label to describe *Terry*, explaining that "[i]nstead [because the intrusion was less than that associated with a traditional arrest], the Court treated the stop-and-frisk intrusion as a *sui generis* rubric of police conduct." The *Dunaway* Court was

¹⁶⁷ See, e.g., Rice v. Cayetano, 528 U.S. 495, 520 (2000) (Bureau of Indian Affairs); Grove City Coll. v. Bell, 465 U.S. 555, 573 (1984) (student financial aid programs); Robertson v. Rosenthal, 132 U.S. 460, 464 (1889) (steel hair pins).

¹⁶⁸ See United States v. Santana, 427 U.S. 38, 47 (1976) (Marshall, J., dissenting). In Santana, the defendant was seen standing in the doorway of a house and retreated into the vestibule upon announcement of police. *Id.* at 40. Justice Marshall protested the Court's failure to consider the then-unresolved question of entry into a home to make a warrantless arrest, and instead, reached a decision that "appears *sui generis*, [in that it is] useful only in arresting persons who are 'as exposed to public view, speech, hearing, and touch' . . . as though in the unprotected outdoors." *Id.* (citation omitted).

¹⁶⁹ See supra note 157.

^{170 392} U.S. 1 (1968); see also supra note 61.

¹⁷¹ Dunaway v. New York, 442 U.S. 200, 212–13 (1979).

¹⁷² See Dunaway, 442 U.S. at 209–10 (stressing that Terry was "narrowly defined").

¹⁷³ See id. at 209 (internal quotation marks omitted) (quoting Terry, 392 U.S. at 20).

careful to emphasize, however, the narrow circumstances that made *Terry* reasonable. ¹⁷⁴

The *Dunaway* Court therefore required a close connection between a one-of-a-kind police practice (stop and frisk) and the justifications for departing from traditional Fourth Amendment requirements, and in doing so, concluded that custodial interrogation of a suspect at the station house on the basis of reasonable suspicion was not sufficiently close to Terry's justifications. In the canine sniff context, one-of-akind treatment of the canine sniff technique means that this practice, too, must be closely tied to the justifications that led the Court to conclude that a sniff was not a "search." Otherwise, the sui generis label would not simply be descriptive; it would convey substantive meaning on its own. The Court would likely reject such a view since it has disapproved of lower courts' attempts to "rope off" a legal issue through the use of the sui generis label in lieu of meaningful legal analysis. 175 Therefore, it is crucial to determine whether canine sniffs of the home are consistent with the narrow circumstances that the sui generis label is meant to describe. 176

2. Frozen in Time: Sui Generis Label Shields Drug-Detection Sniffs from Advances in Scientific Understanding

Courts that apply the *Place/Jacobsen* analysis describe their legal analysis as a "binary" inquiry. As Judge Moylan, on the Maryland Court of Special Appeals, writing for the majority explained:

¹⁷⁴ See id. at 210 (observing that "[b]ecause Terry involved an exception to the general rule requiring probable cause, this Court has been careful to maintain its narrow scope"). In the only other Fourth Amendment case that uses the term *sui generis* as a discussion point, the dissent used the label to argue for a more narrow interpretation of an earlier case than the one used by the plurality. See United States v. Harris, 403 U.S. 573, 597 (1971) (Harlan, J., dissenting) (protesting the Court's relaxation of the probable cause standard by its expansive interpretation of Brinegar v. United States, 338 U.S. 160 (1949), and explaining that an expansive reading was not proper because "Brinegar itself was very carefully limited to situations involving the arrest of those driving moving vehicles, . . . a problem that has typically been treated as sui generis by this Court" (internal citation omitted)).

¹⁷⁵ See Gateway Coal Co. v. United Mine Workers, 414 U.S. 368, 376 (1974) (disagreeing with the Third Circuit's assumption regarding the existence of a "public policy disfavoring compulsory arbitration of safety disputes," which the Third Circuit had viewed as "sui generis"); see also White v. Regester, 412 U.S. 755, 761–62 (1973) (disagreeing with the district court's suggestion that Abate v. Mundt, 403 U.S. 182 (1971), "in accepting total deviations of 11.9% in a county reapportionment[,] was sui generis").

¹⁷⁶ Cf. Dunaway, 442 U.S. at 209 n.11, 210 (requiring that the "intrusion must be carefully tailored to the rationale justifying it" and observing that the Court had been "careful to maintain [*Terry*'s] narrow scope").

The *raison d'etre* for treating a dog sniff as a non-search is that the binary nature of its inquiry, "contraband 'yea' or 'nay'?," precludes the possibility of infringing any expectation of privacy that society objectively considers to be legitimate. If the possession of narcotics in an automobile or a suitcase is illegitimate, so too is the possession of narcotics in a home. It is the criminal nature of the possession itself that takes the activity out from under the protection of the Fourth Amendment, not the place where the possession occurs.

These courts focus exclusively on the unlawfulness of contraband possession without any consideration of the circumstances under which the contraband is possessed. For example, in Fitzgerald v. State, the court distinguished Karo 178 and Kyllo 179 from a canine home-sniff because both Karo and Kyllo involved the tracking of noncontraband items (ether in Karo and excessive heat in Kyllo) once the item became a "detail of the home." The Fitzgerald court pointed out that ether, for example, was "a non-contraband item with many legitimate, as well as illegitimate, uses." The comparison to detection of methyl benzoate molecules in the canine sniff context is unavoidable. As discussed in Part I, scientific research has shown that detection dogs likely alert to the volatile methyl benzoate molecule, not to cocaine itself. 182 Methyl benzoate, like ether, has many legitimate uses and, unlike ether, is probably present in the ordinary household. 183 This scientific research therefore undermines these courts' reliance on the lawful/unlawful character of the substance or item being tracked as a distinguishing basis to support canine home-sniffs. Similar to the thermal imager's detection of excessive heat in Kyllo, detection of methyl benzoate allows police to infer that illegal contraband is also present. As Kyllo instructs, police inferencing about the contents of a home that is made possible by

¹⁷⁷ Fitzgerald v. State, 837 A.2d 989, 1030 (Md. Ct. Spec. App. 2003), *aff* d, 864 A.2d 1006 (Md. 2004).

¹⁷⁸ United States v. Karo, 468 U.S. 705 (1984).

¹⁷⁹ Kyllo v. United States, 533 U.S. 27 (2001).

¹⁸⁰ Fitzgerald, 837 A.2d at 1036 (quoting Kyllo, 533 U.S. at 38).

¹⁸¹ *Id.* (observing that "[e]ther is not contraband and its mere possession is entirely lawful. . . . Thus, *Karo* is factually distinct from both *Place* and *Jacobsen*, where the procedure disclosed only the presence or absence of a contraband item" (quoting United States v. Colyer, 878 F.2d 469, 474 n.5 (D.C. Cir. 1989)) (emphasis omitted) (omission in original)).

¹⁸² See supra notes 32-38 and accompanying text.

¹⁸³ See supra note 38 and accompanying text (discussing methyl benzoate as being present in insecticides, solvents, and perfumes).

sense-enhancing technology is a "search" under the Fourth Amendment.

The potential detection of noncontraband information was crucial to one federal court asked to consider a suspicionless canine sniff by an *explosives*-detection dog at a traffic stop. 184 Although the facts in United States v. Esparza are clearly analogous to those of Caballes, the judge distinguished the two sniffs on the fact that explosivesdetection dogs are "trained to detect ammonium nitrate, a chemical found in [ordinary] household items such as fertilizer and printer cartridges." Therefore, similar to the thermal imager at issue in Kyllo, the sniff by an explosives-detection dog was capable of detecting lawful activity and thereby violated the Fourth Amendment. 186 For purposes of drug-detection sniffs, on the other hand, the Court's use of the sui generis descriptor has crystallized understanding of such sniffs to the assumptions of the day in 1983, seemingly making impermissible what would otherwise be a clear analogy to Kyllo's ban on sense enhancement that might reveal noncontraband information.

As a further thought, reliance on the contraband/noncontraband character of the item being tracked is too simplistic from a legal perspective as well. As four members of the Court recently reminded, "[t]he Fourth Amendment does not seek to protect contraband, yet we have required suppression of contraband seized in an unlawful search." Therefore, courts that focus exclusively on the illegality of the item are missing the point. The Supreme Court requires

¹⁸⁴ United States v. Esparza, No. CR-07-14-S-BLW, 2007 U.S. Dist. LEXIS 66455, at *6 (D. Idaho Sept. 7, 2007) (finding a suspicionless sniff of a vehicle by an explosives-detection dog was a "search" because the dog detected both contraband and noncontraband items and because the facts did not raise any "special need" to sniff for explosives based on any imminent danger to national security).

¹⁸⁵ *Id.* at *6. Although not discussed in the case, the judge's findings on this issue appear to be borne out by the scientific literature concerning explosives-detection sniffs. Explosives-detection dogs "respond to the most-volatile compounds present in an explosive, not necessarily to the explosive species itself." *See Sniffers, supra* note 34, at 207 (explaining that when detecting plastic explosives, the dog is not responding to the explosive component RDX, "which has a very low vapor pressure," but instead "to compounds like cyclohexanone, a solvent used in RDX production").

¹⁸⁶ Esparza, 2007 U.S. Dist. LEXIS 66455, at *7.

¹⁸⁷ See Hudson v. Michigan, 547 U.S. 586, 621 (2006) (citing Kyllo v. United States, 533 U.S. 27, 40 (2001) (Breyer, J., dissenting)); see also United States v. Jeffers, 342 U.S. 48, 53–54 (1951) (explaining that "Congress, in abrogating property rights in [contraband drugs], merely intended to aid in their forfeiture and thereby prevent the spread of the traffic in drugs rather than to abolish the exclusionary rule formulated by the courts in furtherance of the high purposes of the Fourth Amendment").

determinations of whether an unlawful search has occurred and whether it is appropriate to apply an exclusionary remedy under the ⁸⁸ By categorizing *all* canine sniffs as permissible, circumstances.1 and focusing exclusively on the object of the sniff, these lower courts never analyze the lawfulness of the circumstances of the underlying sniff. Courts have never accepted such a simplistic model. For example, where a canine sniff of a person is contemplated, courts have routinely required suspicion, at least in nonborder situations. 189 While the courts in the schoolchild sniff cases focused on the fact that a person, rather than an unattended item, was being sniffed, 190 the key point is that these courts analyzed the circumstances under which the canine sniff was performed. In other words, these courts recognized that canine sniffs were not per se outside the boundaries of Fourth Amendment protections. By focusing on the context of the sniff, these courts concluded that the sniff of a schoolchild was too intrusive to be performed without individualized suspicion. 191 The school sniff cases demonstrate that considering the circumstances of a canine sniff is nothing new, and serve as a clear indicator that evaluating the intrusiveness of a canine sniff is appropriate in other privacy-sensitive circumstances as well. Refusing to consider the context of the canine sniff, in favor of focusing on the contraband for which the dog is sniffing, is therefore wrong.

¹⁸⁸ See Hudson, 547 U.S. at 599 (finding "knock-and-announce" violation but refusing to suppress evidence seized in a search pursuant to a search warrant because imposition of an exclusionary remedy was "unjustified").

¹⁸⁹ The Courts of Appeals for the Fifth and Ninth Circuits have concluded that a canine sniff of a schoolchild is a "search" that required a showing of individualized suspicion. See B.C. v. Plumas Unified Sch. Dist., 192 F.3d 1260, 1267–68 (9th Cir. 1999); Horton v. Goose Creek Indep. Sch. Dist., 690 F.2d 470 (5th Cir. 1982). But see Doe v. Renfrow, 631 F.2d 91 (7th Cir. 1980) (finding close contact sniff was not a search). For a further discussion of the issue, United States v. Kelly, 302 F.3d 291, 295 (5th Cir. 2002) (permitting the suspicionless canine sniff of a person at an international border).

¹⁹⁰ See Plumas Unified Sch. Dist., 192 F.3d at 1266 (distinguishing between the canine sniff of a person and unattended luggage); Horton, 690 F.2d at 478 (recognizing that "the interest in the integrity of one's person, and the fourth amendment applies with its fullest vigor against any intrusion on the human body").

¹⁹¹ See Plumas Unified Sch. Dist., 192 F.3d at 1266 (agreeing with the Fifth Circuit's analysis); Horton, 690 F.2d at 479 (observing that "[i]ntentional close proximity sniffing of the person is offensive whether the sniffer be canine or human").

3. "Remoteness" as a Justification for Excluding Canine Sniffs from Fourth Amendment Requirements: Possible Semantic and Temporal Interpretations and Their Impact on Canine Sniff Jurisprudence

To determine whether a canine home-sniff is tied closely enough to the justifications for treating the technique as a nonsearch, it is important to examine the Court's expectations and assumptions concerning the canine sniff technique. As the *Jacobsen* Court observed, "[h]ere, as in *Place*, the likelihood that official conduct of the kind disclosed by the record will actually compromise any legitimate interest in privacy seems *much too remote* to characterize the testing as a search subject to the Fourth Amendment." ¹⁹²

On the one hand, this discussion provides clear substantiation of an accuracy-based justification for the police investigative tool at issue. In other words, the Jacobsen Court, in its "remoteness" discussion, could be characterizing the testing involved, both the field testing and the canine sniff described in *Place*, as being so accurate that the odds of not finding contraband, and therefore instead finding private, noncontraband information in the ensuing search, are "much too remote" to view the police investigative tool as a "search." This semantic interpretation of "remoteness" is consistent with Place in that *Place*'s description of detection dogs as *sui generis* appeared to be based on both the dog's accuracy and the limited intrusiveness of the sniff itself. 193 Additionally, lower courts have explained remoteness in semantic terms as well. For example, in *Fitzgerald v*. State, the court viewed the likelihood that a drug-detection dog would alert on medically prescribed marijuana as too remote to be meaningful for purposes of *Place*. 194

On the other hand, "remoteness" could also be interpreted in a temporal sense. The idea here would be that the eventual search of the person's now-suspicious item should be severed analytically from

¹⁹² United States v. Jacobsen, 466 U.S. 109, 124 (1984) (emphasis added).

¹⁹³ See United States v. Place, 462 U.S. 696, 707 (1983) (observing that determining whether contraband is present through a canine sniff does not require opening the suitcase and implicitly assuming the accuracy of the technique); see also Illinois v. Caballes, 543 U.S. 405, 410 (2005) (Souter, J., dissenting) (observing that classification of the canine sniff technique as "sui generis" was based on the limited intrusiveness of the sniff and its accuracy).

¹⁹⁴ See Fitzgerald v. State, 837 A.2d 989, 1028 (Md. Ct. Spec. App. 2003) (observing that "[t]he marijuana in the *Place* case, for instance, might conceivably have been medically prescribed in a state such as California. The critical holding of the Court, however, was not to be foreclosed by a mere 'remote' possibility."), *aff'd*, 864 A.2d 1006 (Md. 2004).

the original sniff or field test that produced the suspicion toward the item. A temporal interpretation of remoteness would therefore allow the Court to disconnect the use of the police investigative tool from the inevitable consequences of that use—the search. By looking at these steps in isolation, the Court could ignore the consequences of a false-positive triggering event. In other words, the exposure of private, noncontraband information as a result of a false-positive canine alert would be "too remote" to reflect back, in some constitutional sense, on the search-triggering investigative tool.

The answer to the "remoteness" question has important implications for the ongoing vitality of the *Jacobsen* premise. If the semantic interpretation for "remoteness" is the proper one, then changes in our understanding of both the accuracy of drug-sniffing dogs, in general, and societal views on what is "contraband" take center stage. In other words, if drug-detection dogs are not as accurate as once assumed or if lawful citizens increasingly store prescription medications in their homes that detection dogs would interpret to be contraband, then the likelihood that legitimate interests in noncontraband information remaining undisturbed is, in fact, not "remote."

The Supreme Court may be pressing the temporal, rather than the semantic, view of remoteness, however. As the *Caballes* Court explained:

Although respondent argues that the error rates, particularly the existence of false positives, call into question the premise that drugdetection dogs alert only to contraband, the record contains no evidence or findings that support his argument. Moreover, respondent does not suggest that an erroneous alert, in and of itself, reveals any legitimate private information, and, in this case, the trial judge found that the dog sniff was sufficiently reliable to establish probable cause to conduct a full-blown search of the trunk.

It is not clear from this statement whether the majority concluded, in some definitional sense, that a *false* positive from a reliable detection dog, by itself, was incapable of revealing legitimate private information or, instead, that Caballes had simply failed to make this argument. Significantly, however, the context of the Court's discussion suggests the former and not the latter. Perhaps, the Court recognizes that an accuracy-based foundation for permissive use of canine sniffs is becoming increasingly shaky. To address the problem of false alerts and how such alerts undermine the canine sniff

technique's justifications, the Court may be willing to sever the connection between the canine sniff and the ensuing search.

Surgically separating the false-positive sniff (which Caballes claims reveals no "legitimate private information") from the eventual police rummaging in response to the erroneous alert (which apparently is also not a "search" so long as the dog that gave the false alert was "sufficiently reliable") 196 represents a genuine drift beyond the now-suspect accuracy and limited intrusiveness justifications expressed in Place. Further, it is inconsistent with the Court's earlier express refusal to sever the search and seizure issues in a case involving contraband drugs. 197 The Caballes Court's surprising statement concerning false positives represents an implicit acknowledgment that it needs to patch the hole in canine sniff jurisprudence that has become evident in the years following *Place*. "Reliable" drug-detection dogs make plenty of mistakes. 198 To suggest that a false-positive alert reveals no private information is an artificial conclusion, if ever there was one, because the alert leads directly and inevitably to police rummaging during which private, noncontraband items are uncovered. 199

This *Caballes* dicta may have a real impact on the home-sniff question. There is no data on the accuracy of drug-detection dogs asked to sniff the exterior of a person's home. The data presently available concern the accuracy of detection dogs that are asked to scent in close proximity to the container suspected of secreting contraband (e.g., luggage, a vehicle, or an interior room). It is far from clear that existing data concerning luggage and vehicle searches should be unquestioningly extended to establish "reliability" for canine sniffs of the home. First, the detection dog is not able to gain the same proximity to the contraband item as is typically the case

¹⁹⁶ *Id*.

¹⁹⁷ See United States v. Jeffers, 342 U.S. 48, 52 (1951); see also supra note 100.

¹⁹⁸ See supra notes 151–52, 155-56 and accompanying text.

¹⁹⁹ As Justice Souter explained, "[n]or is it significant that *Kyllo*'s imaging device would disclose personal details immediately, whereas they would be revealed only in the further step of opening the enclosed space following the dog's alert reaction; in practical terms the same values protected by the Fourth Amendment are at stake in each case." *Caballes*, 543 U.S. at 413 n.3 (Souter, J., dissenting).

 $^{^{200}}$ For a discussion of the fact that canine certification for drug detection is limited to testing for drugs hidden in vehicles or indoor, interior rooms, rather than perimeter searches of buildings, see *supra* notes 29–30 and accompanying text.

 $^{^{201}}$ See supra notes 29–30 and accompanying text.

during vehicle or luggage sniffs.²⁰² A dog that is "reliable" for purposes of sniffing luggage in close proximity at an airport may not be as effective in a residential setting.²⁰³ Significantly, however, no data exist to allow meaningful review of canine reliability in these newer factual situations.²⁰⁴

Second, home occupants have less control over the people who access their front door and associated curtilage areas. Although there are exceptions, ²⁰⁵ the front door is an open curtilage location where homeowners typically anticipate interacting with nonfamily members and others. The overall lack of control over who comes and goes from these curtilage areas creates the risk that a drug-detection dog could alert to contraband waste molecules ²⁰⁶ left behind by others—

²⁰² For a discussion of the "scanning" process that drug-detection canines use to locate the scent source of narcotics, see *supra* notes 43–50 and accompanying text. *See also* Fredric I. Lederer & Calvin M. Lederer, *Admissibility of Evidence Found by Marijuana Detection Dogs*, ARMY LAW., Apr. 1973, at 12, 12 (describing a pattern of properly conducted canine-assisted barracks searches). "While the dog *may* detect airborne scent and follow it to its source, more likely the dog will have to *smell the immediate proximity of an area to detect marijuana within it." Id.* (second emphasis added).

²⁰³ In fact, the scientific literature, discussed in Part I, reveals that proximity is an important consideration in both detecting the drug and properly identifying the scent source. *See supra* notes 43–50 and accompanying text.

²⁰⁴ See R v. Kang-Brown, [2008] 1 S.C.R. 456, 2008 1 S.C.C. 18 ¶ 15 (Can.); see also supra note 51. As the Canadian Supreme Court observed, little empirical research on the accuracy of detection dogs exists. Kang-Brown, 2008 1 S.C.C. ¶ 15. One study, conducted in Australia, was reported by the Privacy Ombudsman of New South Wales in 2004. The research revealed that seventy-three percent of those searched on the basis of a positive alert from a drug-detection dog were found not to be in possession of illegal drugs. NEW SOUTH WALES OMBUDSMAN, DISCUSSION PAPER: REVIEW OF THE POLICE POWERS (DRUG DETECTION DOGS) ACT 16 fig.3 (2004) [hereinafter NSW OMBUDSMAN 2004]. While sixty-one percent of the false positives were attributable to the "residual odour" thought to be related to the individual's admission of use or contact with others who had used drugs; thirty-nine percent of the false positives could not be explained. Id. at 23-24. In 2006, the Privacy Ombudsman issued a new report concerning the use of detection dogs. NEW SOUTH WALES OMBUDSMAN, REVIEW OF THE POLICE POWERS (DRUG DETECTION DOGS) ACT (2006) [hereinafter NSW OMBUDSMAN 2006]. Therein, it was determined that seventy-four percent of those searched did not possess illegal drugs. Id. at 53.

²⁰⁵ Many, if not most, homes and apartments lack gates, signage that forbids entry, locked vestibules (for apartments), or ironically, dogs that could be thought of as restricting public access to the front door. The issue of impeded access to the front door is an important consideration to lower courts asked to consider the home-sniff issue. *See*, *e.g.*, People v. Jones, 755 N.W.2d 224, 229 (Mich. Ct. App. 2008).

²⁰⁶ See United States v. Brooks, 589 F. Supp. 2d 618, 630–31 (E.D. Va. 2008) (observing that "drug dogs alert in the presence of an odor—even if the controlled substance is no longer present at the site of the alert"); State v. Cabral, 859 A.2d 285, 289 (Md. Ct. Spec. App. 2004) (detailing a canine handler's testimony that, based upon training, "residual odor of a drug can last up to 72 hours").

even a marijuana seed dropped from a visitor's pocket onto the doormat.²⁰⁷ This lack of control over the location combined with the dog's inability to gain proximity to the supposed contraband suggests that, at the very least, scientific data is needed to support the conclusion that dogs are sufficiently reliable when sniffing homes.

Additionally, Caballes's dicta concerning canine sniff error rates may generate other problems in the home-sniff context. The scope of the search generated by a false positive is far more expansive in the residential context.²⁰⁸ While any search based on a false-positive canine sniff reveals private, noncontraband information, this is especially troubling when the sniffed location is a private residence.²⁰⁹ The search of luggage based on a positive canine sniff is confined to the luggage, and the same is true of a vehicle. While the probable cause-based search of an item or vehicle might well be probing, 210 the scope of the search is defined by the size of the container to which the detection dog has alerted. An alert on a private residence creates suspicion toward a very sizeable container indeed.²¹¹ A search warrant, issued in reliance on a positive canine sniff, would permit a search that is significantly more intrusive than the searches in Place or Caballes because of both the size of the suspected contraband container and the fact that any search for drugs would likely involve a top-to-bottom perusal of the home's every

²⁰⁷ Cf. Fla. Dep't of Highway Safety & Motor Vehicles v. Jones, 780 So. 2d 949, 950 (Fla. Dist. Ct. App. 2001) (discussing a drug-detection dog's alert to marijuana "residue" consisting of stems and seeds of an estimated weight of less than one gram, which the Florida State Trooper testified was too small in amount to recover because "[i]t was embedded in the carpet and would have taken tweezers to recover") (internal quotation marks omitted).

²⁰⁸ Of course, absent exigent circumstances, a warrant is required to enter a home. *See* Payton v. New York, 445 U.S. 573, 587–88 (1980).

²⁰⁹ It is widely accepted that a positive canine alert can produce probable cause to support the ensuing search for contraband. *See, e.g., Jones,* 755 N.W.2d at 226 n.2 (observing that "[t]here is no dispute that a positive reaction by a properly trained narcotics dog can establish probable cause to believe that contraband is present"). *But see* United States v. Olivas, No. 3:09-CR-1402-KC, 2009 U.S. Dist. LEXIS 62270, at *12 n.5 (W.D. Tex. July 17, 2009) (finding "merit to the argument that an alert from a detector dog, even when that dog is well-trained, cannot by itself constitute probable cause to search under any circumstances").

²¹⁰ See generally Carroll v. United States, 267 U.S. 132 (1925) (permitting police to slash upholstery of a vehicle in a search for illegal alcohol supported by probable cause).

²¹¹ See State v. Rabb, 920 So. 2d 1175, 1190 (Fla. 4th Dist. Ct. App.) (observing that "[v]ehicles on public roadways and luggage in airports are simply different because the privacy to be invaded by government's prying eyes is necessarily limited by the size of the vehicle or bag, plus only the effects of one's traveling life chosen to appear outside the home and in public are at risk of exhibition"), cert. denied, 549 U.S. 1052 (2006).

nook and cranny.²¹² The intrusion on privacy from a false-positive alert would be vast, turning *Place*'s justification about limitations on the information revealed on its head.²¹³ In view of the size of the private residence "container," unblinking expansion of the *Caballes* dicta to canine home-sniffs does not make sense.

Additionally, drug-detection dogs have been known to alert on a wide variety of items, including: controlled, nonnarcotic medications; noncontraband medications; and various substances. In the school-sniff cases, while the issue generally

²¹² See United States v. Jackson, No. IP 03-79-CR-1H/F, 2004 WL 1784576, at *5 (S.D. Ind. Feb. 2, 2004) (stating that a search warrant issued on the basis of a positive canine sniff of a residence would allow "of course, a top-to-bottom search of a home for controlled substances, which can be concealed almost anywhere, can be an extremely thorough intrusion into a home").

²¹³ United States v. Place, 462 U.S. 696, 707 (1983) (observing that the canine sniff revealed "limited" information about the contents of luggage, which "ensures that the owner of the property is not subjected to the embarrassment and inconvenience entailed in less discriminate and more intrusive investigative methods").

²¹⁴ Cf. Fitzgerald v. State, 864 A.2d 1006, 1018 (Md. 2004) (refusing to consider the defendant's argument that a drug-detection dog was trained to alert on diazepam, the generic for Valium, because the issue was not raised at trial). For further discussion, see NSW OMBUDSMAN 2004, supra note 204, at 26, which documents a false-positive alert on a woman in Australia that was attributed to the fact that she was carrying her son's ADD medication in her purse, and NSW OMBUDSMAN 2006, supra note 204, at 52–53, which documents alerts on various prescription medicines, including flu medication, Valium, and methadone, and notes that "[a]lthough drug detection dogs are not trained to detect methadone or prescription drugs, we are not aware of any training performed to eliminate possible false positives with these drugs." Cf. John M. Dunn, Illinois v. Caballes: The Day the Supreme Court Lost Its Dog Kyllo, 76 OKLA. BAR J. 1791, 1794 (2005).

[I]t is important to note that there are several prescription drugs that contain an amphetamine as the active ingredient. Drug dogs are trained to smell amphetamines in order to detect methamphetamines. However, Ritalin, Dexedrine and Adderall are drugs commonly used to treat Attention Deficit Disorder/Attention Deficit Hyperactive Disorder which contain amphetamines as their active ingredient. . . . Since the prescription medications are not contraband, their owner should enjoy a legitimate expectation of privacy.

Id. (footnote omitted).

²¹⁵ See Jennings v. Joshua Indep. Sch. Dist., 877 F.2d 313, 317 (5th Cir. 1989); Horton v. Goose Creek Indep. Sch. Dist., 690 F.2d 470, 474 (5th Cir. 1982) (observing that the drug-detection dogs involved were "trained to alert their handlers to the presence of any one of approximately sixty different substances, including alcohol and drugs, both overthe-counter and controlled"). The plaintiff in *Jennings* argued that the detection canine was "capable of reacting to some nonprescription drugs and to residual scents lingering for up to four to six weeks." *Jennings*, 877 F.2d at 317. The dog alerted to, among other things, asthma medication and a Primatene inhaler. *Id.* at 318.

²¹⁶ See, e.g., Jennings, 877 F.2d at 318 (discussing the detection dog's alert to beer caps, empty beer bottles and cans, and the scent of previously vomited beer); Horton, 690 F.2d at 474 (discussing alcohol).

turned on the lawfulness of a canine sniff of a schoolchild²¹⁷ and the resulting searches in some of those cases were extremely troubling,²¹⁸ the *scope* of the search was limited to the person of the sniffed student and the student's on-campus possessions. Without minimizing the intrusiveness of a canine sniff of a person or the ensuing search that results from an alert, the search of a home on the basis of a positive canine sniff would be both probing and expansive. Therefore, because detection dogs have been known to alert on such ubiquitous substances as beer, asthma medication, and over-the-counter medications, a search on the basis of a positive canine sniff may result in a significant invasion of privacy when the sniffed location is a private home.²¹⁹

As a final observation, states are adopting, in increasing numbers, statutes related to medical marijuana, most of which allow possession of between one to eight ounces of marijuana by a qualified patient. For obvious reasons, it is preferable to have such patients store and use this medication in their homes rather than storing it in their vehicles, thus creating the temptation to use this medication while driving. Medical marijuana is in the unusual position of being a legal medication in these states, assuming the qualified patient satisfies the state's applicable laws, but it nevertheless remains a crime to manufacture or possess marijuana under the federal Controlled Substance Act (CSA). This unfortunate dual treatment of medical

²¹⁷ Horton, 690 F.2d at 473.

²¹⁸ See Doe v. Renfrow, 475 F. Supp. 1012, 1017 (N.D. Ind. 1979) (noting that the thirteen-year-old junior high school student, who was strip searched to look for drugs after a drug-detection dog alerted, had been playing with her own dog, which was in heat, prior to school).

 $^{^{219}}$ Cf. Katz & Golembiewski, *supra* note 38, at 754–55 (discussing the inability of a detection dog to distinguish between illicit substances and pharmaceutical substances and noting that pharmaceutical substances may release the same odor as illicit substances).

²²⁰ Thirteen States have legalized medical marijuana. *See* ALASKA STAT. §§ 11.71.090, 17.37.010 to 17.37.080 (2010); CAL. HEALTH & SAFETY CODE § 11362.5 (Deering 2010); COLO. CONST. art. XVIII, § 14; HAW. REV. STAT. ANN. §§ 329-121 to 329-128 (LexisNexis 2010); ME. REV. STAT. ANN. tit. 22, § 2383-B(5) (2009); MICH. COMP. LAWS ANN. § 333.26421 (LexisNexis 2010); MONT. CODE ANN. §§ 50-46-101 to -210 (2010); NEV. CONST. art. 4, § 38; N.M. STAT. ANN. §§ 26-2B-1 to -7 (West 2009); OR. REV. STAT. §§ 475.300 to 475.346 (2009); R.I. GEN. LAWS §§ 21-28.6-1 to -11 (2010); VT. STAT. ANN. tit. 18, §§ 4472-4474d (2009); WASH. REV. CODE ANN. §§ 69.51A.005 to 69.51A.080 (LexisNexis 2010).

²²¹ Pub. L. No. 91-513, 84 Stat. 1242 (codified as amended 21 U.S.C. §§ 801–971 (2006)). The Court held that the CSA's categorical prohibition of the manufacture and possession of marijuana would include even locally grown marijuana that was used for

marijuana creates real risks in the home-sniff context.²²² Even if the investigating officers, out of deference to a state's decision to decriminalize medical marijuana, wished to avoid home searches on the basis of a positive canine alert for marijuana, the drug-detection dog has no way to signal that it was "just" marijuana detected in the home.²²³

B. Should the Context of a Canine Sniff Be Determinative when the Sniffed Location Is a Private Residence?

As the Court's opinion states, "the Fourth Amendment protects people, not places." The question, however, is what protection it affords to those people. Generally, as here, the answer to that question requires reference to a "place."

Absent exigent circumstances, police cannot cross the threshold of a home to arrest a person inside or to search the location. With the canine sniff technique, however, police do not physically cross the threshold of a home but can nevertheless deduce information about the interior of the home that could not otherwise be verified by visual surveillance. Under the Fourth Amendment, the home is "ordinarily afforded the most stringent Fourth Amendment protection." Significant to the home-sniff question, the area immediately

medical purposes, and that the CSA did not exceed Congress's authority under the Commerce Clause. *See* Gonzales v. Raich, 545 U.S. 1, 15, 28 (2005).

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²²² Even the U.S. Department of Justice's recent clear signal to federal prosecutors, in states that have enacted medical marijuana laws, to avoid investigation and prosecution of medical users, does not in any way eliminate the risk that a detection dog will alert on medical marijuana and that a broad search of the home may result. Memorandum from David W. Ogden, Deputy Att'y Gen., U.S. Dep't of Justice, to Selected United States Attorneys (Oct. 19, 2009), http://www.justice.gov/opa/documents/medical-marijuana.pdf.

²²³ But see Fitzgerald v. State, 837 A.2d 989, 1028 (Md. Ct. Spec. App. 2003) (dismissing concerns that a canine sniff of a home might reveal medically prescribed marijuana as a "mere 'remote' possibility," and observing that the marijuana in *Place* could "conceivably have been medically prescribed in a state such as California" (internal quotation marks omitted)), aff'd, 846 A.2d 1006 (Md. 2004). In reality, the idea that the *Place* Court predicted the future and factored medically prescribed marijuana into its two-paragraph canine sniff discussion, as the *Fitzgerald* court asserts, is the true "remote possibility."

²²⁴ Katz v. United States, 389 U.S. 347, 361 (1967) (Harlan, J., concurring).

²²⁵ See Payton v. New York, 445 U.S. 573, 586 (1980) ("It is a basic principle of Fourth Amendment law that searches and seizures inside a home without a warrant are presumptively unreasonable." (internal quotation marks omitted)).

²²⁶ See United States v. Martinez-Fuerte, 428 U.S. 543, 561 (1976); *Payton*, 445 U.S. at 590 (observing that "the Fourth Amendment has drawn a firm line at the entrance to the house").

surrounding and associated with a private home, the curtilage, is also afforded Fourth Amendment protection.²²⁷ While the Court has clearly extended Fourth Amendment protection to the curtilage, ²²⁸ the Court has yet to clarify the degree of protection afforded to the curtilage as compared to the home itself. Further, the front door area, where most canine sniffs are performed, is usually accessible to the public and therefore enjoys some degree of traffic from nonoccupants of the home. So, while the front door area is likely encompassed within a home's curtilage, 230 the home's occupants have little expectation of privacy in items that the public could observe while standing at the front door.²³¹ With that said, in cases involving surveillance of a private home's curtilage, the Court has been careful to emphasize that the information gained about the curtilage was limited to visual observation. 232 As the Court has explained, visual observation is simply less intrusive than an inspection that requires a physical invasion.²³³

The Supreme Court's emphasis in earlier cases on the fact that police curtilage observations were made with the naked eye suggests

²²⁷ Oliver v. United States, 466 U.S. 170, 180 (1984) (observing that "[a]t common law, the curtilage is the area to which extends the intimate activity associated with the 'sanctity of a man's home and the privacies of life'" (quoting Boyd v. United States, 116 U.S. 616, 630 (1886))).

 $^{^{228}}$ Id. (discussing that curtilage "has been considered part of the home itself for Fourth Amendment purposes").

²²⁹ *Id.* at 180 n.11 (observing that it was unnecessary under *Oliver*'s facts "to consider the scope of the curtilage exception to the open fields doctrine or the degree of Fourth Amendment protection afforded the curtilage, as opposed to the home itself").

²³⁰ For example, in *Ciraolo*, the Court noted that the small, fenced-in backyard at issue "would appear to encompass this small area within the curtilage." California v. Ciraolo, 476 U.S. 207, 213 (1986).

²³¹ Cf. United States v. Titemore, 437 F.3d 251, 258–59 (2d Cir. 2006) (finding that a homeowner had no reasonable expectation of privacy in a patch of front lawn visible from the road). The court observed that "it is possible that an area might fall within the curtilage of the home, as that concept was defined at common law, but the owner or resident may fail to manifest a subjective expectation of privacy in that area." *Id.* at 258.

²³² See United States v. Dunn, 480 U.S. 294, 304 (1987) (explaining that in *California v. Ciraolo*, "we held that warrantless naked-eye aerial observation of a home's curtilage did not violate the Fourth Amendment. We based our holding on the premise that the Fourth Amendment has never been extended to require law enforcement officers to shield their eyes when passing by a home or public thoroughfares." (internal quotation marks omitted)).

²³³ Bond v. United States, 529 U.S. 334, 337 (2000) (distinguishing *California v. Ciraolo* and *Florida v. Riley* from a probing palpation of a suspect's luggage because the aerial surveillance cases "involved only visual, as opposed to tactile, observation. Physically invasive inspection is simply more intrusive than purely visual inspection.").

that other, unenhanced sensory determinations would likely also be permissible, assuming that the officer was in a curtilage location, like the front door, that the home's occupant would reasonably anticipate the public to access. The Court's focus in its curtilage discussions has been on the *lack* of sense enhancement, however. Therefore, it is a stretch to conclude that because an officer, during a lawfully conducted "knock and talk" encounter²³⁴ with a home's occupant, can use the officer's own nose to detect contraband, that the officer could instead use a detection dog, whose sense of smell is more than eight times sharper than a human's, to do the sniff work.

Because the front door is a location that lower courts have generally permitted human police officers to access in order to engage in consent-based "knock and talk" interaction with a home's occupants, to distinguish the introduction of a police dog from that of the human police officer courts must examine: (1) whether there are additional intrusions associated with introducing a police dog into the curtilage area of a private home that would make the practice unreasonable under the Fourth Amendment, and (2) whether the heightened expectations of privacy associated with the home would make the warrantless use of a natural form of technology, such as a canine sniff, to deduce information about the interior of a home unreasonable under the Fourth Amendment.

²³⁴ Consent-based police/resident encounters arise when a police officer approaches a private home, knocks on the door, and attempts to engage the resident in a consensual discussion or a consent-based search of the premises. *See, e.g.*, United States v. Ray, 199 F. Supp. 2d 1104, 1110–12 (D. Kan. 2002) (observing that a "knock and talk" encounter is normally consensual unless coercive circumstances, such as unreasonable persistence, a display of weapons, multiple police officers questioning the occupant, or questioning conducted in unusual places or at unusual times, transform the encounter into a "seizure" under the Fourth Amendment).

²³⁵ See, e.g., Duhig v. State, 171 S.W.3d 631, 636 (Tex. App. 2005) (allowing officers to proceed to an unfenced backyard after receiving no answer to a knock at the front door but hearing movement inside the home; officers smelled marijuana coming from an air conditioning vent); see also United States v. Charles, 29 F. App'x 892 (3d Cir. 2002) (discussing an officer who smelled "growing" marijuana); Traylor v. State, 817 N.E.2d 611, 614 (Ind. Ct. App. 2004) (finding that during "knock and talk" at a mobile home, officers smelled the strong odor of ether, a chemical commonly used in the manufacture of methamphetamine).

²³⁶ See, e.g., United States v. Beale, 674 F.2d 1327, 1333 (9th Cir. 1982) (observing that "[a] trained canine's sense of smell is more than eight times as sensitive as a human's"), vacated, 463 U.S. 1202 (1983) (remanding for further consideration in light of *United States v. Place*).

²³⁷ Cf. State v. Guillen, 213 P.3d 230, 240 n.11 (Ariz. Ct. App. 2009) (questioning whether an implied invitation of public access to curtilage would include implicit consent for a visitor to use intrusive equipment to probe the residence).

Of central importance to courts that conclude that a canine homesniff is not a "search" is the fact that the sniff is performed while the detection dog is standing on a location that is accessible to the public. While public location may be important, it should not be presumed to be determinative. After all, prior to *Kyllo*, the public location from which thermal-imaging scans were conducted was essential to courts in concluding that thermal scans were insulated from the Fourth Amendment's warrant requirement. *Kyllo* informed us differently. Therefore, as a threshold matter, it is important to consider whether the location of the dog's paws makes a constitutional difference in the canine sniff analysis or, instead, whether the focus should be on the intrusiveness of introducing a potentially dangerous and, to some, unclean animal into the curtilage area of a private home.

The intrusiveness of police behavior cannot be considered in the abstract, since this would amount to nothing more than a subjective "vote" about whether the practice "felt" unreasonable. As the *Rakas v. Illinois* Court explained: "[I]egitimation of expectations of privacy by law must have a source outside of the Fourth Amendment, either by reference to concepts of real or personal property law or to understandings that are recognized and permitted by society."²⁴¹ Toward that end, the Court has looked to a number of factors in

²³⁸ See, e.g., Stabler v. State, 990 So. 2d 1258, 1259 (Fla. Dist. Ct. App. 2008) (allowing a canine sniff at the front door of the defendant's apartment because the front door was "open to public access and to a common area"); Nelson v. State, 867 So. 2d 534, 535 (Fla. Dist. Ct. App. 2004) ("Areas outside of a hotel room, such as hallways, which are open to use by others may not be reasonably considered as private."); supra note 99. The front door has not always been required as the permissible sniff location, however. See United States v. Tarazon-Silva, 960 F. Supp. 1152, 1163 (W.D. Tex. 1997) (permitting the canine sniff of a dryer vent because the vent was accessible by standing on a paved driveway and the area both was not enclosed and "appears to be readily accessible to neighbors, visitors, repairmen, salesmen, utility workers, and/or members of the public"), aff'd, 166 F.3d 341 (5th Cir. 1998).

²³⁹ Brief for the United States at 15 n.4, Kyllo v. United States, 533 U.S. 27 (2001) (No. 99-8508) (observing that the Courts of Appeals had "uniformly held" that the use of a thermal imager from a public location to observe the exterior of a dwelling was not a "search" within the meaning of the Fourth Amendment, and listing applicable cases).

²⁴⁰ See Kyllo v. United States, 533 U.S. 27, 33 (2001) (requiring a search warrant to perform a thermal-imaging scan of a private home and observing that "[t]he present case involves officers on a public street engaged in more than naked-eye surveillance of a home").

²⁴¹ Rakas v. Illinois, 439 U.S. 128, 143 n.12 (1978); *see also* Georgia v. Randolph, 547 U.S. 103, 111 (2006) (emphasizing "the great significance given to widely shared social expectations" in assessing reasonableness under the Fourth Amendment in consent cases).

examining the intrusiveness of police behavior to determine whether a warrant is required.²⁴² The Court has "given weight to such factors as the intention of the Framers of the Fourth Amendment,"²⁴³ "the uses to which the [person] has put a location,"²⁴⁴ "and our societal understanding that certain areas deserve the most scrupulous protection from government invasion."²⁴⁵

1. Intrusiveness Based on Intimidation

Although we might prefer to visualize a drug-detection dog as being a member of the U.S. Agricultural Department's "Beagle Brigade". a Labrador retriever, like most explosives-detection dogs, 247 such is not the case. Drug-detection dogs are often selected for the intimidation factor that they produce. The intimidation is, therefore, intentional. When asked, and sometimes when not asked, these dogs can be dangerous. Unlike an ordinary weapon, which obviously lacks a mind of its own, the potential exists for a dog, even a well-trained dog, to be disobedient. Courts that refuse

²⁴² See Oliver v. United States, 466 U.S. 170, 177 (1984) (observing that "[n]o single factor determines whether an individual legitimately may claim under the Fourth Amendment that a place should be free of government intrusion not authorized by warrant").

²⁴³ *Id.* at 178 (citing United States v. Chadwick, 433 U.S. 1, 7–8 (1977)).

²⁴⁴ Id. (citing Jones v. United States, 362 U.S. 257, 265 (1960)).

²⁴⁵ *Id.* (citing Payton v. New York, 445 U.S. 573 (1980)).

²⁴⁶ See supra note 18 (discussing the U.S. Agricultural Department's choice of beagles for detection purposes, in part, because they are "nonaggressive" dogs).

²⁴⁷ See supra note 22 (discussing the ATF's choice of Labrador retrievers, in part, because they "possess a gentle disposition" that allows them to be used in crowds and around children).

²⁴⁸ See, e.g., Danelle Aboud, *Dog Lends City Police a Paw*, DETROIT FREE PRESS, Apr. 10, 2003, at 6 (observing that police dogs have the "intimidation factor," causing ""[p]eople [to] react differently when they are stopped and see or hear the barking dog in the back of the police car"" (quoting Madison Heights Police Officer David Koehler)); Matt Lait, *Role Over for Veteran Police Dog*, L.A. TIMES, Jan. 5, 1991, at B3 (noting that although fear is "the handler's first line of defense," the genesis of that defense is that "[t]he dogs are used more frequently for mere presence and intimidation and searching than they are for biting" (internal quotation marks omitted)).

²⁴⁹ See, e.g., Horton v. Goose Creek Indep. Sch. Dist., 690 F.2d 470, 479 (5th Cir. 1982) (observing that a representative from the security services firm hired to conduct campus sniffs testified that "Doberman pinschers and German shepherds were used precisely because of the image maintained by the large dogs"). Those breeds of dog were selected "to maintain an image of strength and ferocity," *id.* at 482, although the security firm actually chose individual animals on the basis of their docility. *Id.*

²⁵⁰ See Merrett v. Moore, 58 F.3d 1547, 1549 (11th Cir. 1995) (noting that during a roadblock for narcotics detection, "one person was bitten by a dog"); Doe v. Renfrow, 475

to apply *Kyllo* in the home-sniff context on the basis that dogs are not technological devices cannot *also* avoid consideration of the intrusiveness that arises *because* dogs are not mechanical devices. Simply stated, drug-detection dogs produce fear, intentionally so, in the ordinary person.²⁵¹ There is a societal cost associated with introducing intimidating dogs into the curtilage of a private home, and the Court has instructed that societal "understandings" are an appropriate consideration in determining reasonableness under the Fourth Amendment.²⁵²

2. Intrusiveness Based on Historical Oppression

While the courts that refuse to apply *Kyllo* emphasize our societal recognition that dogs are familiar and have been used by law enforcement for tracking purposes for centuries, these courts ignore the fact that dogs have also been used as tools of institutional oppression for perhaps even longer. Although dogs have long been used by military forces, as early as 2500 BC, Egyptians used dogs on civilians for purposes of crowd control to protect the pyramids. The Spanish conquistadors used dogs to kill and subdue the native

F. Supp. 1012, 1017 (N.D. Ind. 1979) (noting that the thirteen-year-old female schoolchild, who was strip searched to look for drugs after a drug-detection dog alerted, had been playing with her own dog, which was in heat, prior to school); see also Matthew Pleasant, Police Dog Suspended During Attack Investigation, DAILYCOMET.COM, July 23, 2009, http://www.dailycomet.com/article/20090723/ARTICLES/907239926/1212?Title=Police -dog-suspended-during-attack-investigation (reporting that the detection dog, a Belgian malinois, was taken out of service following allegations that the dog escaped its kennel and attacked a woman and noting that one of the handler's previous dogs, also a Belgian malinois, mauled a seventy-seven-year-old bicyclist in 2007 after the dog was unleashed).

²⁵¹ As Justice Ginsburg noted in her *Caballes* dissent, "[a] drug-detection dog is an intimidating animal." Illinois v. Caballes, 543 U.S. 405, 421 (2005) (Ginsburg, J., dissenting); *see also id.* at 411 n.2 (Souter, J., dissenting) (agreeing with Justice Ginsburg in finding that the introduction of a narcotics-detection dog into routine stop "can in fact be quite intrusive").

²⁵² See Rakas v. Illinois, 439 U.S. 128, 143 n.12 (1978).

²⁵³ See, e.g., Fitzgerald v. State, 837 A.2d 989, 1037 (Md. Ct. Spec. App. 2003) ("The use of the sense of smell generally is a familiar tool of perception much older than the common law or the Bill of Rights. Indeed, [the Kentucky Supreme Court] stated that bloodhound evidence 'was looked upon with favor as early as the twelfth century" (internal citation omitted)), aff'd, 864 A.2d 1006 (Md. 2004).

²⁵⁴ The ancient Romans used war dogs, training Mastiffs to attack the legs of their enemies, who would then "lower their shields." U.S. War Dogs Ass'n, *War Dogs in the Marine Corps in World War II*, http://www.uswardogs.org/id187.html (last visited May 4, 2010).

²⁵⁵ James W. Golden & Jeffery T. Walker, *That Dog Will Hunt: Canine-Assisted Search and Seizure*, in POLICING AND THE LAW 71, 71 (Jeffery T. Walker ed., 2002).

populations upon their arrival in America. Dogs were used to attack Native Americans and to chase down runaway slaves. During the Civil War, dogs were used to intimidate and injure African-American soldiers fighting for the North. Following Pearl Harbor, dogs were used to intimidate Japanese Americans residing in Hawaii. Hawaii.

In more modern times, police dogs have been used for crowd control, even on nonviolent civil rights demonstrators.²⁶¹ The passage of time may not have healed these wounds.²⁶² Recent events

In Case of meeting a Party of the Enemy, the Dogs are then to be all turn'd loose and set on. They will be fresher and fiercer for having been previously confin'd, and will confound the Enemy a good deal, and be very serviceable. This was the Spanish Method.

Letter from Benjamin Franklin to James Read (Nov. 2, 1755) (on file with the Historical Society of Pennsylvania), available at http://franklinpapers.org/franklin/framed Volumes.jsp?vol=6&page=234a (last visited Nov. 7, 2009); see also J. Robert Lilly & Michael B. Puckett, Social Control and Dogs: A Sociohistorical Analysis, 43 CRIME & DELINQ. 123, 135 (1997).

²⁵⁸ See, e.g., Brister v. State, 26 Ala. 107, 118 (1855) (observing that "[t]he defendants are slaves . . . [and] were taken into custody by sixteen or seventeen white men, who went on the place armed with double-barreled guns, negro whips and sticks, and accompanied by a pack of negro dogs, known to be such by defendants"); Benjamin v. Davis, 6 La. Ann. 472 (1851). The court in *Benjamin* observed that "the defendants came to the house of witness early in the morning with their negro dogs, and said they were going to hunt runaway negroes." *Benjamin*, 6 La. Ann. at 472. The overseer "had a right to use the dogs in his attempt to make such capture, such means being customary among the planters of the parish." *Id.* at 474.

²⁵⁶ In 1513, Bartolomé de Las Casas, a missionary and conquistador, described Spanish tactics in the conquest for gold and land. The Conquistadors slaughtered native peoples, and even "taught their Hounds, fierce Dogs, to teare [natives] in peeces at the first view." Bartolomé de Las Casas, SPANISH ATROCITIES IN THE WEST INDIES (1513), *reprinted in* EYEWITNESS TO HISTORY 82, 83 (John Carey ed., Harvard Univ. Press 1987) (1987).

²⁵⁷ As Benjamin Franklin wrote to James Read:

²⁵⁹ Lilly & Puckett, supra note 257, at 129.

²⁶⁰ Id. at 130.

²⁶¹ See David Benjamin Oppenheimer, Kennedy, King, Shuttlesworth and Walker: The Events Leading to the Introduction of the Civil Rights Act of 1964, 29 U.S.F. L. REV. 645, 646 (1995) (observing that in Birmingham, Alabama, in 1963, television cameras captured "black children kneeling in prayer or singing spirituals" who were attacked by "vicious police dogs").

²⁶² See Carlos Campos, Alpharetta Putting 2 Canine Cops on the Beat, ATLANTA J. CONST., Nov. 24, 1994, at G34 (observing that despite the passage of time, "some people may associate police-trained German shepherds with the black-and-white news footage of vicious dogs cut loose on civil rights activists during the 1960s"). As a further illustration, prior to his confirmation hearings, Justice Thomas described the "bitterness and nostalgia" of his childhood in Savannah, Georgia: "I remember being excluded from certain parks, stadiums and movie theaters. I saw the Klan marches, the riots, the police dogs and water

have again brought intimidating dogs to the forefront of our national consciousness. While the German shepherds used at Abu Ghraib prison were military trained, the fact remains that our country has an unfortunate history of using dogs to target people of color for oppression by both military forces and civilian police agencies. This sad legacy cannot be ignored in assessing the intrusiveness of introducing a police dog into the curtilage of a private home or using a dog for suspicionless screening of multidwelling residential complexes.

3. Intrusiveness Based on Religious Objections

Americans love dogs. It may therefore be hard for the ordinary American to fathom that many Muslims view dogs as unclean and that contact with dogs, especially canine saliva, is so offensive that it necessitates a purification ritual. Our increasingly multicultural

hoses." Timothy M. Phelps, Nominee a Puzzle: A Look at the Pieces on Eve of Hearings on Confirmation, NEWSDAY, Sept. 9, 1991, at 7.

263 In 2004, photographs emerged that depicted military-trained German shepherds that were used to intimidate prisoners at Abu Ghraib prison in Afghanistan as an interrogation strategy. See Bob Deans & Mike Williams, 'Disgust and Disbelief': Bush Views Prison Abuse Photos, ATLANTA J. CONST. May 11, 2004, at 1A ("The Washington Post, which last week first published photos of a female U.S. soldier holding a leash attached to the neck of a naked Iraqi prisoner, printed a picture in Monday's editions of a naked detainee pinned against cell bars as a pair of guard dogs stood threatening him from both sides.").

²⁶⁴ Islamic law, known as *Shari'a*, is derived primarily from the Qur'an and various collections of oral tradition of the Prophet Muhammad documented in the hadith. See generally RICHARD C. MARTIN, ISLAMIC STUDIES: A HISTORY OF RELIGIONS APPROACH (2d ed. 1996). While there are no statements concerning dogs in the Qur'an, numerous references to dogs appear in the hadith. Various of the hadith report that Allah's messenger, the prophet Muhammad, commanded that dogs were to be killed, except for those used for hunting and protecting herds and farmland. See, e.g., SAHIH BUKHARI, Vol. 4, Book 54, Nos. 531, 539-42; SAHIH MUSLIM, Book 10, Nos. 3814-24. Due to their uncleanliness, the hadith warn that angels will not enter a home where a dog is kept, see, e.g., SAHIH BUKHARI, Vol. 4, Book 54, No. 448, that the proximity of a dog to a praying person annuls the person's prayers, see, e.g., SAHIH BUKHARI, Vol. 1, Book 9, No. 490, and that keeping a dog as a pet results in a reduction of the keeper's heavenly rewards, see, e.g., SAHIH BUKHARI, Vol. 3, Book 39, No. 516. For more discussion, see M. Muhsin Khan's translation of Sahih Bukhari at http://www.usc.edu/schools/college/ crcc/engagement/resources/texts/muslim/hadith/bukhari/, and Abdul Hamid Siddiqui's translation of Sahih Muslim at http://www.usc.edu/schools/college/crcc/engagement/ resources/texts/muslim/hadith/muslim/. Important to the canine home-sniff issue, an item that has become impure due to contact with a dog must be purified by washing the item seven times, and then by rubbing it with earth the eighth time. See, e.g., SAHIH MUSLIM, Book 2, No. 0551; Evan Thomas, Into Thin Air, NEWSWEEK, Sept. 3, 2007, at 24 (observing that American soldiers "continually make cultural blunders, like using canine units to search people's homes [in view of the fact that] dogs are considered unclean in Muslim culture").

society requires societal recognition that contact with dogs is offensive to many Muslims, however, and perhaps to followers of other religions as well. In other parts of the world, these objections are taken seriously. In the United Kingdom, for example, guidelines are being considered that would require detection dogs to wear rubber-soled "bootees" when searching a Muslim's home or a mosque. The point of this discussion is not to suggest that special rules should apply to any particular group, but rather to illustrate that contact with dogs, or contamination from dogs, is highly objectionable to some. Therefore, suspicionless entry of dogs into the curtilage of a home, or dragnet use of detection canines, must be carefully reconsidered.

4. Even Surreptitious Canine Sniffs of the Home Violate the Fourth Amendment

At present, there are few cases that document face-to-face encounters between the occupant of a home and a drug-detection dog. For now, it seems that police officers are trained to avoid introducing a drug-detection dog while making initial contact in a "knock and talk" encounter, in order to avoid creating a coercive atmosphere that would render the occupant's consent to talk or search involuntary. In a sense then, law enforcement's own apparent practice of eschewing dogs during the initial stages of a "knock and talk" is an implicit acknowledgment that dogs are intimidating and offensive and, therefore, intrusive.

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²⁶⁵ See, e.g., Sniffer Dogs Unclean, N.Z. HERALD (Mar. 6, 2006) ("Hindu priests cleansed a shrine to Indian independence leader Mahatma Gandhi after a visit by [President George W.] Bush, the Hindustan Times reported yesterday. It wasn't the US leader who offended them, but the sniffer-dogs that scoured the area ahead of his visit.").

²⁶⁶ See Stuart MacDonald, Sniffer Dogs to Wear 'Muslim' Bootees, SUNDAY TIMES (London), July 6, 2008, at 1. The use of such "bootees," of course, fails to address the primary concern to many Muslims, which is the canine's saliva. Cf. Richard Peppiatt, It's P.C. Madness; Muslim Raid Dog Bootees, DAILY STAR (U.K.), July 7, 2008, at 25.

²⁶⁷ Cf. Langley v. State, 735 So. 2d 606, 607 (Fla. Dist. Ct. App. 1999) (finding that a reasonable person would not feel free to leave a "knock-and-talk" encounter when confronted by six officers and a "K-9 dog").

²⁶⁸ See, e.g., GEORGE S. STEFFEN & SAMUEL M. CANDELARIA, DRUG INTERDICTION: PARTNERSHIPS, LEGAL PRINCIPLES, AND INVESTIGATIVE METHODOLOGIES FOR LAW ENFORCEMENT 67 (2003) ("The knock and talk team should not take the dog with them to the door when making contact with the suspect. This creates an intimidating and coercive environment. If a drug canine is available, it should be kept out of sight while the consent is obtained by the officers.").

the other hand, drug-detection dogs are often used surreptitiously as a means to establish probable cause to obtain a search warrant or, on a dragnet basis, to isolate homes or apartments for the officers to target for "knock and talks." While it could be argued that surreptitious use of drug-detection dogs is not intimidating or offensive because the home's occupants are unaware that their home has been sniffed, this is, in reality, beside the point. First, the home's occupants may have been aware of the sniff, but chose to avoid direct confrontation with the law enforcement team. Second, for some such canine contact would likely be offensive on religious grounds, regardless of whether it was discovered at the time the contact was originally made.²⁶⁹ Third, the *potential* for discovery, 270 and therefore intimidation, offense, and even embarrassment, ²⁷¹ exists and cannot be predicted in advance. Fourth, unrestricted police discretion allows for arbitrary selection of sniff locations; in other words, police targeting of individuals or neighborhoods for canine sniff screening without objective antecedent justification.²⁷²

As a further thought, there is presently no information about property damage to the home of the sort that detection dogs have been known to produce in other contexts.²⁷³ Property damage of even the most de minimis sort has not gone unnoticed by the Court, at least in the seizure context. For example, even such de minimis intrusions as the destruction of a minute amount of white powder by the field

²⁶⁹ For discussion of the purification necessary under Islamic law to cleanse an item or area that has been contaminated by contact with a dog, see *supra* note 264.

²⁷⁰ This "potential for discovery" is distinguishable from the reference to a "potential for an invasion of privacy" made by the *Karo* Court in discussing whether the installation of a beeper constituted a seizure. *See* United States v. Karo, 468 U.S. 705, 712 (1984) (emphasis omitted). In *Karo*, the "potential" privacy invasion was entirely within the discretion of the police because the police could decide to turn the beeper on, or not. Here, the intrusiveness that arises either from religious offense or discovery of the canine-sniff police unit involves circumstances beyond the officer's control.

²⁷¹ See, e.g., State v. Guillen, 213 P.3d 230, 238 (Ariz. Ct. App. 2009) (finding that a canine home-sniff violated the Arizona Constitution and describing canine sniffs of the exterior of a home as "intimidating, embarrassing, distressing, and worrisome encounters").

²⁷² See supra note 6.

²⁷³ See Merrett v. Moore, 58 F.3d 1547, 1549 (11th Cir. 1995) (noting that "the dogs scratched several cars" at a roadblock set up to detect narcotics); see also United States v. Cota-Lopez, 358 F. Supp. 2d 579, 584 (W.D. Tex. 2002) (stating that a drug-detection dog alerted "by barking and scratching at the door").

testing in *Jacobsen*²⁷⁴ or the paint scrapings taken from the exterior of the vehicle in *Cardwell v. Lewis*²⁷⁵ required justification under the Court's reasonableness analysis.²⁷⁶ Important to the Court was the fact that the property at issue, the white powder in *Jacobsen* and the automobile in *Cardwell*, had already been lawfully seized at the time these additional de minimis intrusions occurred.²⁷⁷ For canine homesniffs, on the other hand, no lawful seizure of the home is required. Therefore, even relatively minor property damage to the home may be viewed as unreasonable.²⁷⁸ Since it is impossible to know in advance whether doors will be scratched, cats will be chased,²⁷⁹ or occupants will be frightened or bitten, all canine sniffs of the home should be supported by, at a minimum, reasonable suspicion.²⁸⁰

While the drug-detection dogs presently in service are often of the intimidating sort, ²⁸¹ the intrusiveness that arises from a dangerous

²⁷⁴ United States v. Jacobsen, 466 U.S. 109, 124 (1984). The Court observed that, even though the amount of tested powder was so minute that its loss was undetectable, *id.* at 125 n.27, the field testing "did affect [Jacobsen's] possessory interests protected by the [Fourth] Amendment, since by destroying a quantity of the powder it converted what had been only a temporary deprivation of possessory interests into a permanent one." *Id.* at 124-25.

²⁷⁵ 417 U.S. 583, 591–92 (1974).

²⁷⁶ See Jacobsen, 466 U.S. at 125 (observing that "[t]o assess the reasonableness of [the field testing], [we] must balance the nature and quality of the intrusion on the individual's Fourth Amendment interests against the importance of the governmental interests alleged to justify the intrusion" (internal quotation marks omitted) (third alteration in original)).

²⁷⁷ See, e.g., id. (observing that "since the property had already been lawfully detained, the 'seizure' could, at most, have only a *de minimis* impact on any protected property interest").

 $^{^{278}}$ Id. at 125 n.28 (cautioning that although the destruction of the white powder in Jacobsen was reasonable, "[w]e do not suggest, however, that any seizure of a small amount of material is necessarily reasonable").

²⁷⁹ While the idea of cats being chased is introduced, in part, to provide a bit of levity to the discussion, it should be noted that even *inconveniences* with respect to property must be supported by a lawful initial seizure. For example, the *Jacobsen* Court observed that the seizure of the luggage in *Place* became unreasonable because the bags were kept too long. *Id.* at 124 n.25. Again, the key point with respect to these additional investigative activities (field testing in *Jacobsen* and the canine sniff in *Place*) is the fact that both were supported by a lawful initial seizure of the item involved. No such lawful initial seizure of a private home is required to conduct a canine home-sniff that would otherwise support inconveniences, such as runaway pets or trodden landscaping.

²⁸⁰ Cf. id. at 125 n.28 (noting that "where more substantial invasions of constitutionally protected interests are involved, a warrantless search or seizure is unreasonable in the absence of exigent circumstances").

²⁸¹ See supra notes 15, 20-21 and accompanying text (discussing the fact that potentially dangerous breeds are generally selected as drug-detection dogs both for an

dog's presence in a home's curtilage could be mitigated by reliance on more "people-friendly" dogs, like the members of the U.S. Department of Agriculture's Beagle Brigade. Therefore, this Article does not propose that reliance on any particular *type* of drugsniffing dog, by itself, justifies treating canine home-sniffs as a "search." With that said, it is nevertheless important to emphasize that the drug-detection dogs presently in service *are* intimidating and that this fact must not be ignored by courts asked to consider the home-sniff question. When the practice of introducing threatening, and potentially offensive, police dogs into the protected curtilage of a private home is viewed in conjunction with the heightened expectation of privacy associated with the home, then the canine sniff issue comes into sharper focus.

5. Heightened Expectation of Privacy Associated with the Home

The conclusion that a canine sniff of the home is a "search" within the meaning of the Fourth Amendment can be traced to *United States v. Thomas.* ²⁸⁴ *Thomas* involved the criminal trial of multiple defendants for their operation of a large "narcotics ring run by a governing body called the 'Council.'" In *Thomas*, the U.S. Court of Appeals for the Second Circuit concluded that the warrantless sniff under the apartment door of one of the defendants violated the Fourth Amendment:

[A] practice that is not intrusive in a public airport may be intrusive when employed at a person's home. Although using a dog sniff for narcotics may be discriminating and unoffensive relative to other detection methods, and will disclose only the presence or absence of narcotics, . . . it remains a way of detecting the contents of a private, enclosed space. With a trained dog police may obtain information about what is inside a dwelling that they could not derive from the

[&]quot;intimidation" factor and because these dogs are often cross-trained for apprehension, or "bite," capabilities).

²⁸² See supra note 18.

²⁸³ Significantly, however, even people-friendly dogs would remain offensive to those who objected to dogs on religious grounds. See supra notes 264-66 and accompanying text. Further, dogs may produce property damage, like scratched doors or other inconveniences.

²⁸⁴ 757 F.2d 1359 (2d Cir. 1985).

²⁸⁵ *Id.* at 1362. The story of this vast and highly organized drug operation is depicted in "American Gangster," a movie starring Denzel Washington as drug kingpin Frank Lucas and Cuba Gooding, Jr., as Leroy "Nicky" Barnes. AMERICAN GANGSTER (Universal Studios 2007). Barnes is described as a "co-conspirator" to the defendants in the *Thomas* opinion. *See Thomas*, 757 F.2d at 1362.

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use of their own senses. Consequently, the officers' use of a dog is not a mere improvement of their sense of smell, as ordinary eyeglasses improve vision, but is a significant enhancement accomplished by a different, and far superior, sensory instrument. Here the defendant had a legitimate expectation that the contents of his closed apartment would remain private, that they could not be "sensed" from outside his door. Use of the trained dog impermissibly intruded on that legitimate expectation.

The Second Circuit's conclusions on this issue were viewed as unsound, however, and have been rejected by all federal circuits and district courts that have considered the canine home-sniff issue.²⁸⁷ Only one court has followed *Thomas*'s privacy-based analysis and found that a canine home-sniff is a "search" under the Federal Constitution.²⁸⁸ The *State v. Rabb* court, in reliance on *Thomas* and *Kyllo*'s concerns about protecting the privacy of the home from government intrusions, explained:

Likewise, it is of no importance that a dog sniff provides limited information regarding only the presence or absence of contraband, because as in *Kyllo*, the quality or quantity of information obtained through the search is not the feared injury. Rather, it is the fact that law enforcement endeavored to obtain the information from inside the house at all, or in this case, the fact that a dog's sense of smell crossed the "firm line" of Fourth Amendment protections at the door of [the] house.²⁸⁹

While federal courts, other than the Second Circuit, have refused to extend Fourth Amendment protection to canine home-sniffs, a number of states have interpreted their own constitutions to provide

²⁸⁶ Thomas, 757 F.2d at 1366-67 (citation omitted).

²⁸⁷ See supra note 7 (listing courts that found a canine home-sniff is not a "search" under the Federal Constitution); see also Fitzgerald v. State, 837 A.2d 989, 1031 (Md. Ct. Spec. App. 2003) (observing that *Thomas* had met with "universal disapprobation"), aff'd, 864 A.2d 1006 (Md. 2004). The Second Circuit recently distinguished *Thomas*, but did not reject it or signal that it would reject *Thomas* if given the opportunity on appropriate facts. See United States v. Hayes, 551 F.3d 138, 145 (2d Cir. 2008) (finding *Thomas* "clearly distinguishable" because the detection dog sniffed a brushy area approximately sixty-five feet from the back door of the residence, not inside the home itself).

²⁸⁸ See generally State v. Rabb, 920 So. 2d 1175 (Fla. 4th Dist. Ct. App.), cert. denied, 549 U.S. 1052 (2006). One district court clearly accepted *Thomas*'s reasoning, but its holding appears distinguishable because the canine sniff at issue was performed at the back door of the private home, a location that the court concluded was not a "public place." See United States v. Jackson, No. IP 03-79-CR-1H/F, 2004 WL 1784756, at *4 (S.D. Ind. Feb. 2, 2004).

²⁸⁹ Rabb, 920 So. 2d at 1184.

protection under a variety of canine sniff circumstances.²⁹⁰ Although not determinative of the Fourth Amendment search issue, ²⁹¹ these cases are strong evidence that states routinely consider the circumstances of a canine sniff, and when privacy concerns are implicated, states provide protection. In a sense, the sheer number of states that consider the circumstances of a canine sniff in determining whether it is a "search" suggests that "time has set its face against" a categorical rule that sniffs are per se nonsearches.²⁹² Further, these states' practice is evidence that the canine sniff technique can be viewed as a "search" when used in privacy-sensitive circumstances without burdensome disruption of police investigative efforts. In view of the heightened expectation of privacy associated with the home and the intrusiveness of bringing a drug-detection dog into the protected curtilage area of a private residence, it is appropriate to characterize a canine home-sniff as a "search" under the Fourth Amendment.

²⁹⁰ See McGahan v. State, 807 P.2d 506, 509-11 (Alaska Ct. App. 1991) (finding that a canine sniff of the exterior of a warehouse was a "search" under the Alaska Constitution); State v. Guillen, 213 P.3d 230, 239 (Ariz. Ct. App. 2009) (finding that a canine sniff of the exterior of a home violated the Arizona Constitution); People v. Haley, 41 P.3d 666, 672 (Colo. 2001) (finding that canine sniffs are "searches" requiring reasonable suspicion under the Colorado Constitution); Hoop v. State, 909 N.E.2d 463, 470 (Ind. Ct. App. 2009) (finding that a canine sniff of a front door of a residence required reasonable suspicion under the Indiana Constitution); State v. Baumann, 759 N.W.2d 237, 239 (Minn. Ct. App. 2009) (finding that a canine sniff of a common hallway of an apartment building was a "search" under the Minnesota Constitution, which must be supported by reasonable suspicion); State v. Tackitt, 67 P.3d 295, 302-03 (Mont. 2003) (requiring "particularized suspicion" under the Montana Constitution); State v. Ortiz, 600 N.W.2d 805, 811 (Neb. 1999) (finding a legitimate expectation of privacy under the Fourth Amendment and the Nebraska Constitution, which required "reasonable, articulable suspicion" to conduct a canine sniff, although the Nebraska Supreme Court never expressly stated that a canine sniff of the threshold of the apartment was a "search"); State v. Pellicci, 580 A.2d 710, 716-17 (N.H. 1990) (finding that a canine sniff of a vehicle was a "search" requiring reasonable suspicion under the New Hampshire Constitution); People v. Dunn, 564 N.E.2d 1054, 1058 (N.Y. 1990) (holding that a sniff outside an apartment door was a "search" under the New York Constitution); State v. Woljevach, 828 N.E.2d 1015, 1018 (Ohio Ct. App. 2005) (finding that a canine sniff was a "search" under the Ohio Constitution); Commonwealth v. Martin, 626 A.2d 556, 560 (Pa. 1993) (finding that a canine sniff of a person was a "search" under the Pennsylvania Constitution requiring probable cause); State v. Dearman, 962 P.2d 850, 854 (Wash. Ct. App. 1998) (finding that a canine sniff of a garage was a "search" under the Washington Constitution).

 $^{^{291}}$ Cf. Mapp v. Ohio, 367 U.S. 643, 652–53, 660 (1961) (discussing the states' decision to adopt the exclusionary rule despite the fact that the Court had not required them to do so and observing that "the experience of the states is impressive . . . [and] [t]he movement towards the rule of exclusion has been halting but seemingly inexorable").

 $^{^{292}}$ Cf. id. at 653 (discussing, among other things, the states' voluntary movement toward adopting the exclusionary rule).

6. Reasonable Suspicion or Probable Cause?

If the Court were to conclude that a canine home-sniff is, in fact, a "search" under the Fourth Amendment, as this Article proposes, the essential remaining question would be what quantum of suspicion is required to support the practice; reasonable suspicion or probable cause?²⁹³ Certainly, the suspicion standard is an issue over which reasonable minds could disagree. New York, Arizona, and Indiana, for example, have concluded that a canine home-sniff is a "search" under their state constitutions but that reasonable suspicion is sufficient to support the sniff-search.²⁹⁴ On the other hand, Washington and Ohio have interpreted their state constitutions to require a search warrant supported by probable cause.²⁹⁵ The *Rabb* court also found the canine home-sniff to be a search but based its conclusion on the Fourth Amendment, which Rabb also interpreted to require a warrant supported by probable cause.²⁹⁶ In view of the divergent approaches on the suspicion standard, a few observations seem appropriate.

Absent exigent circumstances, a warrant is required to search a person's home or person. While the Court has refused to allow increased law enforcement efficiency to serve as a basis for bypassing

²⁹³ As the New York Court of Appeals observed, "[o]ur conclusion that there was a search, however, does not end the inquiry." *Dunn*, 564 N.E.2d at 1058.

²⁹⁴ *Id.* (deciding that a canine sniff "may be used without a warrant or probable cause, provided that the police have a reasonable suspicion that a residence contains . . . contraband"); *Guillen*, 213 P.3d at 239 (finding that a canine sniff of the "seams of a residence" was a "search" under the Arizona Constitution, which must be supported by reasonable suspicion); *Hoop*, 909 N.E.2d at 470 (finding that a canine sniff of the front door of a residence required reasonable suspicion under the Indiana Constitution); *see also Ortiz*, 600 N.W.2d at 811 (requiring "reasonable, articulable suspicion" to conduct a canine sniff without expressly finding that the canine sniff of the threshold of the apartment was a "search").

²⁹⁵ Dearman, 962 P.2d 850, 854 (Wash. Ct. App. 1998) (concluding that a canine sniff of a garage was a "search" under the Washington Constitution and that a search warrant based upon probable cause was required); *Woljevach*, 828 N.E.2d 1015, 1018 (Ohio Ct. App. 2005) (interpreting the Ohio Constitution to require same); *cf. Martin*, 626 A.2d 556, 560 (Pa. 1993) (concluding that a canine sniff of a person was a "search" under the Pennsylvania Constitution, which required a showing of probable cause).

²⁹⁶ State v. Rabb, 920 So. 2d 1175, 1192 (Fla. 4th Dist. Ct. App.), *cert. denied*, 549 U.S. 1052 (2006). In fact, Florida's district courts of appeal are presently split on the homesniff issue, with the Fourth District Court of Appeal finding a "search" under the Fourth Amendment and the Third District Court of Appeal finding that it was not a search. *Compare Rabb*, 920 So. 2d 1175, *with* State v. Jardines, 9 So. 3d 1 (Fla. 3d Dist. Ct. App.), *review granted*, 3 So. 3d 1246 (Fla. 2009).

²⁹⁷ McDonald v. United States, 335 U.S. 451, 456 (1948).

the warrant requirement.²⁹⁸ the Court does consider the real-world pressures of law enforcement when police are asked to make splitsecond decisions involving unfolding events in the field.²⁹⁹ In most cases involving canine home-sniffs, however, the police decision to perform the sniff does not involve the sort of split-second calculation that was present in *Terry*. Similar to the use of a thermal imager, in most cases there is time for police to resort to the warrant process.³⁰⁰ Some courts faced with the home-sniff question have suggested that probable cause would be an illogical requirement because a showing of probable cause would allow officers to obtain a search warrant to conduct a physical search of the premises in any event.³⁰¹ While this argument may seem intuitively plausible, it is incorrect. In fact, the same argument could be made for the thermal-imaging device at issue in Kyllo: if police have probable cause to perform a thermal scan on a private home, then, the argument goes, police would also have probable cause to physically search the home for contraband, thereby rendering the need for the thermal scan irrelevant. The years since Kyllo have disproved this argument, however. The focus of post-Kyllo thermal-imaging warrant applications has been on whether there is probable cause to conduct the scan, not on whether there is probable cause to physically search the premises. 302

²⁹⁸ Mincey v. Arizona, 437 U.S. 385, 393 (1978) ("The investigation of crime would always be simplified if warrants were unnecessary. But the Fourth Amendment reflects the view of those who wrote the Bill of Rights that the privacy of a person's home and property may not be totally sacrificed in the name of maximum simplicity in enforcement of the criminal law.").

²⁹⁹ Terry v. Ohio, 392 U.S. 1, 20 (1968) (observing that "we deal here with an entire rubric of police conduct—necessarily swift action predicated upon the on-the-spot observations of the officer on the beat—which historically has not been, and as a practical matter could not be, subjected to the warrant procedure").

 $^{^{300}}$ See Brigham City v. Stuart, 547 U.S. 398, 402 (2006) (discussing warrantless entry by law enforcement in an emergency).

³⁰¹ See, e.g., Fitzgerald v. State, 837 A.2d 989, 1039 n.6 (Md. Ct. Spec. App. 2003) ("A requirement for either a probable-cause-based warrant or even probable cause without a warrant as justification for a dog sniff would be an exercise in redundancy. The probable cause to conduct a dog sniff would *ipso facto* make the dog sniff unnecessary. The probable cause would in and of itself justify the issuance of the search warrant and the dog sniff would be superfluous."), aff'd, 864 A.2d 1006 (Md. 2004).

³⁰² See, e.g., United States v. Kattaria, 553 F.3d 1171, 1175 (8th Cir. 2009) (finding probable cause to issue a thermal-imaging warrant, therefore the results of the thermal scan were properly used to obtain a warrant to physically search the premises); United States v. Henry, 538 F.3d 300, 301 (4th Cir. 2008) (observing that police first obtained a search warrant to perform a thermal scan, then used the results of the thermal scan as well as other information to obtain a "conventional search warrant" to physically search the property).

Similar to the thermal-imaging warrants required after *Kyllo*, a canine sniff of a private home should be supported by a warrant issued on the basis of probable cause to perform the *sniff*, not probable cause to physically search the premises. The requirement of a dog-sniff warrant would thereby ensure that canine sniffs of private residences would be limited to circumstances in which police had conducted an investigation and established an objectively reasonable basis for performing the sniff—to the satisfaction of a neutral and detached magistrate. Examination of the facts by a magistrate would provide the steadying balance that is essential to ensure that canine sniffs of the home are conducted only under appropriate circumstances. ³⁰³

C. Are There Limitations in Kyllo that Argue Against Its Applicability to the Canine Home-Sniff Issue?

tech•nol•o•gy...1a: the practical application of knowledge esp. in a particular area . . . b: a capability given by the practical application of knowledge <a car's fuel-saving ~> 2: a manner of accomplishing a task esp. using technical processes, methods, or knowledge 304 . 3: the specialized aspects of a particular field of endeavor[.]

As the *Kyllo* oral argument reflects, the Court clearly anticipates the eventual intersection of the canine home-sniff question and *Kyllo*'s limitations on sense-enhancing technology directed at the home. ³⁰⁵ *Kyllo*'s relevancy to this question may turn on whether a detection dog is sense-enhancing "technology" and, if so, whether that technology could be considered "advancing" technology, to which *Kyllo* would apparently be applicable, or instead "routine" technology, to which *Kyllo* would apparently be inapplicable.

³⁰³ See, e.g., Johnson v. United States, 333 U.S. 10, 14 (1948).

The point of the Fourth Amendment, which often is not grasped by zealous officers, is not that it denies law enforcement the support of the usual inferences which reasonable men draw from evidence. Its protection consists in requiring that those inferences be drawn by a neutral and detached magistrate instead of being judged by the officer engaged in the often competitive enterprise of ferreting out crime.

Id. at 13-14.

³⁰⁴ MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 1283 (11th ed. 2007).

³⁰⁵ Transcript of Oral Argument at 19–20, 22, 33, Kyllo v. United States, 533 U.S. 27 (2001) (No. 99-8508), *available at* http://www.supremecourtus.gov/oral_arguments/argument_transcripts/99-8508.pdf.

1. Dogs as Natural Technology

Dogs are familiar fixtures in American society. Many of us have one sleeping on our sofa, guilt-free, at any given time. It is important not to allow our fondness for personal pets color the legal analysis of whether a trained detection dog, when used to discover information about the interior of a home, should be viewed as "technology" for purposes of *Kyllo*. Lower courts that refuse to apply *Kyllo* to canine home-sniffs do so, in part, based on our overall familiarity with dogs and their superior sense of smell ³⁰⁷ and, as they argue, because the canine sense of smell is not a "rapidly advancing technology" of the sort warned about in *Kyllo*. ³⁰⁸

Interestingly enough, the White House's Office of National Drug Control Policy discusses detection dogs and lists them as "Non-Intrusive Technology," and as is discussed below, the government describes detection dogs as "technology" in other project materials as well. Therefore, the government may find itself in the uncomfortable position of both defining and treating drug-detection dogs as "technology" in its own project literature and *also* arguing to courts that such dogs are not sense-enhancing "technology" for purposes of criminal suppression hearings. Understanding why the government treats drug-detection dogs as technology is therefore essential in determining whether these dogs are "advancing technology" for *Kyllo* purposes.

As a threshold matter, it is helpful to consider more thoroughly the government's treatment of drug-detection dogs in its own project literature. For example, a program is presently in place that is intended to enhance the drug-detection dog gene pool. In its "Nonintrusive Inspection" discussion, the White House's Office of National Drug Control Policy described the program's intended goal of creating a "worldwide gene pool" for substance-detection canines:

³⁰⁶ But cf. Fitzgerald v. State, 864 A.2d 1006, 1015 (Md. 2004) ("[A] dog is not technology—he or she is a dog. A dog is known commonly as 'man's best friend.' Across America, people consider dogs as members of their family.").

³⁰⁷ See supra note 253.

³⁰⁸ See Fitzgerald v. State, 837 A.2d 989, 1037 (Md. Ct. Spec. App. 2003) (observing that "[t]he investigative use of the animal sense of smell, human or canine, cannot even be defined as a technology. It is, a fortiori, not an unfamiliar or rapidly advancing technology that 'is not in general use.'"), aff'd, 864 A.2d 1006 (Md. 2004); see also State v. Bergmann, 633 N.W.2d 328, 334 (Iowa 2001) (observing that, in a vehicle-sniff context, "a drug sniffing dog is not technology of the type addressed in Kyllo").

 $^{^{309}}$ See infra notes 310–11 and accompanying text.

In conjunction with the U.S. Customs Service, the graduates of a breeding strategy for substance detecting canines are now working at U.S. ports of entry. Based on quantitative genetic principles proven by the Australian Customs Service, initial results indicate the potential to establish a worldwide gene pool for substance detection canines. . . . Scientists at Auburn University are analyzing functional olfaction characteristics to improve our understanding of the biological and behavioral processes in substance detection with canines. A dynamic three-dimensional model has been constructed of the olfactory laminar flow, recovery, and adaptation. Further study will verify the mechanisms of the particle filtration process. Findings are being disseminated to all substance detection canine training agencies. ³¹⁰

Additionally, the 2002 Counterdrug Research and Development Blueprint Update (Blueprint) includes "substance detection canines" in the "Technology" section of its brief. Even the placement of the detection-dog technology discussion in the Blueprint is revealing. There, the discussion of the "worldwide gene pool" is flanked by a neutron-based probe that can be used to "provide a characterization of the [searched and] imaged object based on its elemental composition," and a handheld device that can be used "to identify drugs in solid mixtures (e.g., pills) and aqueous solutions" through a "near infrared Raman spectroscopy method." "111

While a drug-detection dog is obviously not a gadget, these dogs are the object of meaningful scientific study and development; study both for the purpose of improved training and to scientifically enhance the dog's capabilities. The canine sniff technique is being

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³¹⁰ THE WHITE HOUSE, NATIONAL DRUG CONTROL STRATEGY: COUNTERDRUG RESEARCH AND DEVELOPMENT BLUEPRINT UPDATE, at C-1 (2002) [hereinafter COUNTERDRUG RESEARCH], available at http://www.whitehousedrugpolicy.gov/ctac/ctac02/blueprint2002.pdf.

Genetics research is also being conducted by the U.S. Transportation Security Administration (TSA) to enhance the capabilities of explosives-detection dogs. *See* Zack Phillips, *The Sniff Test*, GOV'T EXECUTIVE, Dec. 1, 2006 (quoting Scott Thomas, breeder for TSA program), http://www.govexec.com/features/1206-01/1206-01s2.htm ("'We'll be custom-designing dogs for purposes of detection We call them Labrador retrievers; there may come a day we call them Labrador detectors.""). The TSA breeding program has produced "a new custom breed," the Vinzslador, in the hope of producing detection dogs with the best qualities of both Labrador retrievers and vizslas. *Id.* ("'Let's not think of a dog as an old tool that can't be improved on It can, with current technology."").

³¹¹ COUNTERDRUG RESEARCH, *supra* note 310, at 6 & app. at C-1. Appendix C classifies canines as a "nonintrusive inspection technolog[y]," *see id.* app. at C-1, while Appendix D includes the canine breeding program as a type of "narcotics detection technolog[y]." *See id.* app. at D-1, D-3.

enhanced (and, therefore, advanced) through scientific research, ³¹² breeding programs, ³¹³ scientifically validated training programs, ³¹⁴ and cloning technology. ³¹⁵ Just because a dog is not a gadget is not determinative of whether detection dogs have been trained and developed such that they represent a form of sense-enhancing technology. As the definition of "technology" suggests, the term describes "practical application of knowledge especially in a particular area." Because detection dogs receive careful training using "technical processes, methods, or knowledge," ³¹⁶ and are the subject of scientific study that is intended to enhance their capabilities, ³¹⁷ these dogs satisfy the definition of "technology." Certainly, the government's own treatment of drug-detection dogs is a clear indication that, true to the label the government has attached to them, these specially trained canines are a form of technology, and

³¹² Russia, for example, has created a new breed of "super sniffer" dogs by crossbreeding Siberian huskies with jackals. *See* Ben Aris, *Russians Breed Superdog with a Jackal's Nose for Bombs and Drugs*, TELEGRAPH.CO.UK, Dec. 15, 2002, http://www.telegraph.co.uk/news/worldnews/europe/russia/1416227/Russians-breed-superdog-with-a-jackals-nose-for-bombs-and-drugs.html. The "super sniffer dog" has an "enhanced sense of smell" and was the product of a scientific research project that lasted twenty-seven years. *Id.*

³¹³ See supra note 310 and accompanying text.

³¹⁴ For example, in the civil forfeiture context, concerns about currency contamination have led some courts to require a "sophisticated dog alert" on money that the government seeks to seize because of its connection to drug trafficking. *See* Sumareh v. Doe (*In re* \$80,045.00 in U.S. Currency), 161 F. App'x 670, 671 (9th Cir. 2006); *see also supra* note 40

³¹⁵ See supra note 310 and accompanying text (discussing the creation of a "worldwide gene pool" for substance-detection canines). Additionally, South Korea has used cloning technology to create "the world's first cloned drug-sniffing dogs." South Korea to Use Cloned Sniffer Dogs, ASSOCIATED PRESS, Apr. 24, 2008, available at http://www.msnbc.msn.com/id/24296334/ ("'We came up with the idea of dog cloning after thinking about how we can possess a superior breed at a cheaper cost." (quoting Hur Yong-suk, head of the Korean Customs Service)). These cloned dogs are touted as possessing superior drug-detection capabilities. See Clone Ranger Sniffs Out Airport Drugs, PHYSORG.COM, Aug. 12, 2009, http://www.physorg.com/news169283100.html (stating that the cloned drug detector's "achievement [in locating three grams of narcotics in a tightly zipped bag] shows cloned dogs are much better than ordinary dogs at detecting narcotics").

³¹⁶ See supra note 304.

³¹⁷ See, e.g., Waggoner et al., supra note 37, at 216 (observing that "[t]he following laboratory study of dogs' detection of cocaine hydrochloride and its degradation product methyl benzoate were conducted as part of the ongoing efforts of Auburn University's Institute for Biological Detection Systems to enhance canine detection technology" (emphasis added)); see also supra note 315 (discussing the development of a "super sniffer" dog).

that substantial scientific attention has been directed toward "advancing" this technology.

Additionally, from a practical perspective, it makes sense to treat a canine home-sniff as "technology," and therefore subject to Kyllo. If dogs are permitted to sniff homes for drug-detection purposes, there would be no principled way to distinguish between canines and mechanical devices that revealed only the presence or absence of controlled or other illegal substances. The only distinguishing differences between these two varieties of "sniffers" would be that a dog is animate and perhaps less accurate than any mechanical sniffer that might ultimately be used in the field. While some might argue that the lack of precise accuracy of the canine sniff, as compared to a mechanical sniffer, makes the canine sniff less intrusive, this argument makes little sense in the home-sniff context because the ensuing search on the basis of a false-positive alert would be so extraordinarily intrusive. 320 Furthermore, basing any distinction on Kyllo's expressed concerns about "advancing technology" seems premature in the canine sniff context because genetics-based breeding programs with the intended goal of enhancing drug-detection dog capabilities are in place, 321 and a so-called "super sniffer" dog has

³¹⁸ Cf. Kyllo v. United States, 533 U.S. 27, 47–48 (2001) (Stevens, J., dissenting) (arguing that the *Kyllo* majority's analysis would apparently be applicable to "mechanical substitutes" for detection dogs, even if the device was similarly limited to the type of information revealed by a canine sniff—"illegal activity"—and that therefore the majority's opinion would necessarily bar the use of such devices).

³¹⁹ The Georgia Institute of Technology has developed a mechanical sniffer, which has been referred to as an electronic "dog-on-a-chip." The vapor sensor, also known as an "electronic nose," is said to be more sensitive than a drug-detection dog; dogs can detect molecules in the part-per-billion range, while the dog-on-a-chip at "a few trillionths of a gram." Press Release, Ga. Inst. of Tech., "Dog-on-a-Chip" Could Replace Drug-Sniffing Canines (Nov. 7, 2003) (reporting results from D.D. Stubbs et al., *Investigation of Cocaine Plumes Using Surface Acoustic Wave Immunoassay Sensors*, 75 ANALYTICAL CHEMISTRY 6231 (2003)); *see also* Paige Bowers, *How to Put a Police Dog on a Chip*, TIME, Jan. 4, 2004, *available at* http://www.time.com/time/magazine/ article/0,9171,570268,00.html. As discussed in Part I, canine detectors have a natural advantage over electronic detectors based on the dog's mobility and agility, which allows the dog to get close to the suspected contraband source. *See supra* note 46 and accompanying text. The canine's natural ability to get close to the scent source was not a consideration in this scientific research, however. The need for proximity to the suspected contraband source for detection purposes, while obviously desirable, remains unstudied in the canine home-sniff context.

³²⁰ See supra notes 208–18 and accompanying text (discussing the intrusiveness of a search of the home both because of the size of the home in comparison to other containers and because police would be permitted to examine any container or location capable of secreting drugs).

³²¹ See supra notes 310, 312, 315.

been produced by crossbreeding Siberian huskies with jackals.³²² Therefore, the only remaining distinction is that dogs are animate sensing devices and mechanical sniffers are not. While this is admittedly a way to distinguish the two varieties of "sniffers," the distinction appears to be the *only* way to distinguish them in a principled manner. As the *Rabb* court observed:

At the end of the analysis, the Fourth Amendment remains decidedly about "place," and when the place at issue is a home, a firm line remains at its entrance blocking the noses of dogs from sniffing government's way into the intimate details of an individual's life. If that line should crumble, one can only fear where future lines will be drawn and where sniffing dogs, or even more intrusive and disturbing sensory-enhancing methods, will be seen next. 323

Accordingly, drug-detection dogs represent a "natural" technological aid to law enforcement and should therefore be subject to *Kyllo*. ³²⁴ Similar to the thermal imager in *Kyllo*, detection dogs do not actually detect contraband in most cases; their alert to the methyl benzoate molecule instead allows police to *infer* that contraband is also present. Therefore, drug-detection dogs are a sense-enhancing technology that implicate the same concerns expressed in *Kyllo*: (1) "advancing technology," in view of the potential for technology-based enhancement of the canine sniff technique (through science-based breeding programs, cloning technology, and innovative training tactics), and (2) the disclosure of noncontraband information.

2. "Routineness" of Technology Directed at the Home

As *Kyllo* clearly indicated, not all sense-enhancing technology is barred from use in gathering information about the interior of the home. The *Kyllo* Court specified that whether technology was in "general public use," which *Kyllo* explained to mean "routine," may be a factor in determining whether the police surveillance tactic at

³²² See supra note 312.

³²³ State v. Rabb, 920 So. 2d 1175, 1192 (Fla. 4th Dist. Ct. App.), cert. denied, 549 U.S. 1052 (2006).

³²⁴ While the *Kyllo* Court also referenced "hi-tech measurement of emanations from a house," the opinion does not suggest that this comment was intended to *exclude* from *Kyllo*'s reach natural technological aids that implicate *Kyllo*'s concerns about advancing technologies in general. *See* Kyllo v. United States, 533 U.S. 27, 37 n.4 (2001) (responding to the dissent's argument that the thermal imager at issue simply allowed police to infer what was going on inside Kyllo's house).

issue amounts to a "search." Therefore, it is worthwhile to consider whether dogs could be viewed as sufficiently "routine" to merit treatment as technology that is in "general public use." In other words, even if dogs are viewed as sense-enhancing technology within the meaning of *Kyllo*, the canine sniff might be sufficiently "routine" that society would lack a reasonable expectation of privacy in the information revealed by the sniff.

While the Kyllo Court did not specify how "routineness" was to be determined, 326 guidance on this issue can be found in Kyllo's treatment of earlier cases in which technology was used to gain information about the home or its uncovered curtilage areas. Kyllo expressly endorsed earlier Supreme Court decisions that permitted the use of technology to facilitate the ordinary perceptions of police officers. 327 In the aerial surveillance cases, Florida v. Riley 328 and California v. Ciraolo, 329 the technology of air flight enabled the officers to observe marijuana plants growing in uncovered curtilage areas of private residences. Neither case involved optical magnification of a human's ordinary eyesight, however. The Riley and Ciraolo cases focused on the lawfulness of air flight at the elevations involved and the fact that no intimate details concerning the home were discovered during the aerial surveillance. 330 Although Kyllo clearly accepted the validity of the Riley and Ciraolo

³²⁵ Id. at 39 n.6.

³²⁶ In fact, Justice Stevens, in his *Kyllo* dissent, protested the majority's failure both to analyze the "general public use" factor and to remand for an evidentiary hearing on this issue. *See id.* at 47 n.5 (Stevens, J., dissenting) (arguing that there are thousands of thermal imagers presently in use and that they are "readily available to the public").

³²⁷ See id. at 33. The majority noted that the Court had concluded on two different occasions that aerial surveillance of private homes and their surrounding areas was not a "search." See Florida v. Riley, 488 U.S. 445, 450–51 (1989); California v. Ciraolo, 476 U.S. 207, 213–14 (1986) (majority opinion).

 $^{^{328}}$ Riley, 488 U.S. at 448 (observing that "[w]ith his naked eye, [the officer] was able to see through the openings in the roof . . . to identify what he thought was marijuana growing in the structure").

³²⁹ Ciraolo, 476 U.S. at 215 (observing that "[t]he Fourth Amendment simply does not require the police traveling in the public airways at this altitude to obtain a warrant in order to observe what is visible to the naked eye").

³³⁰ Riley, 488 U.S. at 451 (observing that "it is of obvious importance that the helicopter in this case was *not* violating the law"); *Ciraolo*, 476 U.S. at 213 (noting that "[t]he observations by [the officers] in this case took place within public navigable airspace"). Also important to the *Riley* Court was the fact that "no intimate details" about the home or curtilage were observed and the fact that "there was no undue noise . . . and no wind, dust, or threat of injury." *Riley*, 488 U.S. at 452.

decisions,³³¹ it reoriented their justification to make those decisions consistent with *Kyllo*'s reasoning. The *Kyllo* Court deemphasized the earlier decisions' reliance on the nonintimacy of the information discovered and instead focused on the routineness of the air flight technology that made the naked-eye observations possible.³³²

After *Kyllo*, all "details" concerning the home are private, regardless of the intimacy of that information. Significantly, however, while intending protectiveness, *Kyllo* may have injected a more damaging categorization issue into the technology discussion. By characterizing air flight as "routine" and therefore available for gathering information about the home, *Kyllo* completely severed the technology, in a definitional sense, from the context in which it was used. As Justice O'Connor pointed out in her *Riley* concurrence, the *circumstances* under which technology is used should determine whether expectations of privacy are reasonable. 334

After *Riley*, the Court seemed to embrace Justice O'Connor's more situation-sensitive analysis in *Bond v. United States*. ³³⁵ *Bond* is a pre-Kyllo decision that considered the reasonable societal expectations of bus passengers concerning how their luggage would be manipulated by other passengers on a bus. Rather than follow a more categorical

³³¹ *Kyllo* cites these cases favorably, in part, because of our long history of permitting nontrespassory visual surveillance. *See Kyllo*, 533 U.S. at 31–33 (observing that "[v]isual surveillance was unquestionably lawful because 'the eye cannot by the laws of England be guilty of a trespass'" (quoting Boyd v. United States, 116 U.S. 616 (1886) (quoting Entick v. Carrington, 19 How. St. Tr. 1029 (K.B. 1765)))).

³³² *Id.* at 38 n.5 ("We think the [*Ciraolo*] Court's focus in this second-hand dictum [from the California Supreme Court] was not upon intimacy but upon otherwise-imperceptibility, which is precisely the principle we vindicate today."). The majority explained that limiting "searches" to those that revealed only intimate details "would not only be wrong in principle; it would be impractical in application." *Id.* at 38.

³³³ *Id.* at 40 (observing that "[w]here, as here, the Government uses a device that is not in general public use, to explore details of the home that would previously have been unknowable without physical intrusion, the surveillance is a 'search' and is presumptively unreasonable without a warrant").

³³⁴ See Riley, 488 U.S. at 455 (O'Connor, J., concurring) (disagreeing with the plurality's focus on the fact that the helicopter remained within navigable air space and, alternatively, arguing that "we must ask whether the helicopter was in the public airways at an altitude at which members of the public travel with sufficient regularity that Riley's expectation of privacy from aerial observation was not one that society is prepared to recognize as reasonable" (internal quotation marks omitted)).

³³⁵ See Bond v. United States, 529 U.S. 334, 338–39 (2000) (finding that an officer's probing palpation of Bond's soft-side luggage located in a bus's overhead bin violated the Fourth Amendment).

approach, like the one used by the *Riley* plurality, ³³⁶ the *Bond* Court instead found that the Fourth Amendment had been violated based on a context-sensitive analysis: while any passenger could have squeezed Bond's luggage in attempting to place their own luggage in the overhead bin, the Court concluded that passengers do not reasonably anticipate that other passengers will manipulate their luggage in the probing manner used by the officer. ³³⁷ The *Kyllo* Court's shorthand reference to air flight as "routine" without any reference to the *context* of the air flight suggests that "routineness" may be analyzed under the categorical approach of the *Riley* plurality, rather than the context-sensitive approach articulated in *Bond*. If this is the case, then once a given technology is deemed to be "routine," courts might no longer consider the *way* in which the technology was used.

For canine home-sniffs, *Kyllo*'s apparent blueprint for analyzing "routineness" creates risks beyond the obvious ones³³⁸: where a category of excluded surveillance tactics (i.e., one excluded from Fourth Amendment scrutiny because it is "routine") collides with another category of excluded surveillance tactics (i.e., a canine sniff), the risk of unreasonably narrowing *Katz*'s privacy-based Fourth Amendment analysis becomes real. In allowing canine sniffs of the home, lower courts have emphasized our overall familiarity with dogs and our societal recognition that dogs have an excellent sense of smell that has long benefited law enforcement. In other words, dogs are "routine," which sets the stage for the conclusion that, even if

³³⁶ If the *Riley* plurality approach had been applied, then police would have been permitted to conduct a probing palpation because any passenger *could* have probed Bond's luggage while placing a bag in the overhead bin.

 $^{^{337}}$ See Bond, 529 U.S. at 338–39 (observing that while "a bus passenger clearly expects that his bag may be handled . . . [h]e does not expect that other passengers or bus employees will, as a matter of course, feel the bag in an exploratory manner").

³³⁸ The obvious hazard that *Kyllo*'s exception for routine technology creates was described by Justice Stevens in his dissent: "[P]utting aside its lack of clarity, this criterion is somewhat perverse because it seems likely that the threat to privacy will grow, rather than recede, as the use of intrusive equipment becomes more readily available." *Kyllo*, 533 U.S. at 47 (Stevens, J., dissenting).

³³⁹ See, e.g., Fitzgerald v. State, 837 A.2d 989, 1037 (Md. Ct. Spec. App. 2003), aff'd, 864 A.2d 1006 (Md. 2004). As the Maryland Court of Special Appeals observed in Fitzgerald:

The investigative use of the animal sense of smell, human or canine, cannot even be defined as a technology. It is, *a fortiori*, not an unfamiliar or rapidly advancing technology that "is not in general use." Bloodhounds have been chasing escaping prisoners and other fugitives through the swamps for hundreds of years

detection dogs are viewed as "technology" for *Kyllo* purposes, they should be viewed as routine technology.

The convergence between two categorical exclusions from *Katz*'s privacy analysis simply goes too far. After *Place* and *Caballes*, unless the *context* of the canine sniff (here, the home) is viewed as being too intrusive for Fourth Amendment purposes, the validity of the warrantless canine sniff must be upheld. If routineness is also a factor (assuming for now, as some lower courts have, that a detection dog could be viewed as "routine"), then no meaningful examination of the *context* of the sniff would be available even under *Kyllo*. Such a model makes no sense. Even assuming the ongoing vitality of the canine sniff doctrine, adding another layer of insulation from review in the form of "routineness" would render judicial evaluation of canine sniffs of the home unreachable.

In addition to the "routineness" factor for Kyllo's applicability, Riley and Ciraolo are important for another reason. In fact, these cases are important for what they do not say. Riley and Ciraolo turned on society's acceptance of modern air travel and the assumption that items may be viewable by air travelers when looking out airplane windows. The Court in both cases noted, and perhaps even emphasized, that the observations had been made with the naked eye. 341 To be clear, the issue of optical magnification was not before the Court in either Riley or Ciraolo, only the warrantless use of technology (air flight) to gain a better vantage point. 342 The Riley and Ciraolo Courts' analysis was based on a generalized lack of privacy in observations made during the course of air travel, not on the more specific assertion that individuals lack an expectation of privacy in contraband—even when that contraband is located in their homes or uncovered curtilage areas. Significantly, however, if the more specific assertion, the *Jacobsen* premise, controlled the legal question, then the fact that the observations in Riley and Ciraolo were made with the naked eye would have been irrelevant. If Jacobsen

³⁴⁰ Cf. Peebles, supra note 152, at 86 ("[F]ailure to reach the question of reasonableness of a search has meant that many types of governmental intrusions are taken out of the domain of judicial control altogether. To hold that no reasonable expectation of privacy existed and that no search occurred permits the judiciary, in effect, to wash its hands of its normal supervisory role over a given type of governmental investigative activity.").

³⁴¹ See supra notes 328-29.

³⁴² However, the lack of optical magnification was an important fact, even to the *Kyllo* Court. *See Kyllo*, 533 U.S. at 33 (observing that, unlike *Riley* and *Ciraolo*, "[t]he present case involves officers on a public street engaged in more than naked-eye surveillance of a home").

controlled, use of optical magnification would be permissible since the observations would not be physically intrusive and society has come to accept that the vantage point for the observation (air flight) is routine. The *Riley* and *Ciraolo* Courts did not so much as hint that the use of optics would have been permissible, however. Instructive to the canine home-sniff question is the fact that nowhere in *Riley* and *Ciraolo* does the Court rely on the *Jacobsen* premise.

IV THE PATH AHEAD

[W]e cannot forgive the requirements of the Fourth Amendment in the name of law enforcement. This is no formality that we require today but a fundamental rule that has long been recognized in . . . America. While "[t]he requirements of the Fourth Amendment are not inflexible, or obtusely unyielding to the legitimate needs of law enforcement," . . . it is not asking too much that officers be required to comply with the basic command of the Fourth Amendment before the innermost secrets of one's home or office are invaded. 343

It is reasonable and appropriate to consider the context in which a police investigative tool is used to determine whether it is a "search" for Fourth Amendment purposes. Canine sniffs are not per se beyond the reach of the Fourth Amendment when the sniff is performed under intrusive circumstances or in a location that implicates stringent Fourth Amendment privacy concerns. A canine sniff of the home is problematic both because of its intrusiveness and because it implicates the privacy concerns expressed in *Kyllo*. Therefore, a canine home-sniff is a "search" under the Fourth Amendment and must be treated accordingly.

Moreover, treatment of canine sniffs as searches would not unduly hamper law enforcement efforts. While dragnet use of canine sniffs would be prohibited under the Federal Constitution, this practice is already impermissible under a number of state constitutions, seemingly without adverse law enforcement consequences. Resort to the warrant process appropriately places a neutral magistrate in the decision-making role for determining whether this privacy-sensitive surveillance tactic should be used. Similar to the thermal-imaging warrants required after *Kyllo*, a dog sniff warrant application would consider whether there was probable cause to conduct the *sniff*, not whether there was probable cause to physically search the premises.

³⁴³ Berger v. New York, 388 U.S. 41, 62-63 (1967) (citation omitted).

When viewed in this light, a dog-sniff warrant would not involve an unreasonably burdensome showing and would provide the objectivity of a magistrate in considering whether this potentially intrusive police technique was appropriate.

As a final thought, the Court's recent reminder in *Arizona v. Gant*³⁴⁴ that extensions of constitutional rules must be supported by the rule's underlying justifications has clear applicability to the canine home-sniff issue. Extending *Place* to include canine sniffs of the home cannot be justified by *Place*'s accuracy and limited-intrusiveness justifications. A canine sniff of a home is not the minimally intrusive law enforcement tool that a sniff of luggage at an airport or a lawfully stopped vehicle at the roadside would represent. Therefore, mechanically concluding that canine sniffs are per se nonsearches on the basis of *Place* and *Caballes* is unreasonable.

³⁴⁴ 129 S. Ct. 1710, 1723–24 (2009) (refusing to extend *Belton* to allow for the search of a vehicle after an arrestee had been secured and therefore could not access the interior of the vehicle because *Belton*'s safety rationale was not satisfied).

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