

COMMENT

GOING TO THE DOGS: EVALUATING THE PROPER STANDARD FOR NARCOTIC DETECTOR DOG SEARCHES OF PRIVATE RESIDENCES*

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“[A] man[']s house is his castle, et domus sua cuique est tutissimum refugium [and to everyone his house is his surest refuge].”¹

I. INTRODUCTION

There is no place as sacred and protected as a man’s home. The Supreme Court has recognized “the overriding respect for the sanctity of the home that has been embedded in our traditions since the origins of the Republic.”² Yet, within the context of drug dog searches, the Supreme Court’s decisions, or lack thereof, in *Illinois v. Caballes*³ and *Florida v. Rabb (Rabb I)*⁴ seem to have relegated the home to the same status as vehicles, luggage, and other items that have historically enjoyed lesser Fourth Amendment protection.⁵

Standards regarding the use of drug dog sniffs to the exterior of a private residence vary from jurisdiction to

1. EDUARDO COKE, THE THIRD PART OF THE INSTITUTES OF THE LAWS OF ENGLAND: CONCERNING HIGH TREASON, AND OTHER PLEAS OF THE CROWN, AND CRIMINAL CAUSES 161 (1797).

2. *Payton v. New York*, 445 U.S. 573, 601 (1980).

3. *Illinois v. Caballes*, 543 U.S. 405, 409 (2005) (holding that a canine sniff of the exterior of a vehicle does not infringe on the defendant’s Fourth Amendment rights).

4. *Florida v. Rabb (Rabb I)*, 544 U.S. 1028 (2005). The Court did not decide *Rabb I* on the merits, but rather vacated and remanded the case to the Florida court for reconsideration in light of *Caballes*. *Id.*; *State v. Rabb (Rabb III)*, 920 So. 2d 1175, 1177–78, 1203 (Fla. Dist. Ct. App. 2006). After the Florida court returned the same decision, *Rabb III*, 920 So. 2d at 1203, the Court refused to grant certiorari to consider the case further. *Florida v. Rabb (Rabb IV)*, 549 U.S. 1052 (2006).

5. See *United States v. Place*, 462 U.S. 696, 707 (1983) (determining that a canine sniff of luggage is not a search); *United States v. Quoc Viet Hoang*, 486 F.3d 1156, 1160 (9th Cir. 2007) (relying on *Place* and *Caballes* to find that a canine sniff of a package is not a search).

jurisdiction.⁶ Some jurisdictions consider dog sniffs to be searches under their state constitutions and require reasonable suspicion of wrongdoing before a sniff can be conducted.⁷ In fact, courts generally view narcotic detector dogs as reliable and as useful tools in the war on drugs, despite varying statistics on reliability.⁸ The Supreme Court had the opportunity to fully explore the issue of dog sniffs of the exterior of a house in *Rabb I*, but instead chose to remand the case to the Florida District Court of Appeals with instructions to consider the Court's opinion

6. See generally 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, 768–77 (2007) (discussing the use of narcotic detector dogs absent a showing of probable cause as a possible violation of the Fourth Amendment); Ken Lammers, *Canine Sniffs: The Search that Isn't*, 1 N.Y.U. J. L. & LIBERTY 845, 846–48 (2005) (discussing dog sniffs in general and suggesting that they are not particularly reliable and should be subject to greater Fourth Amendment protections); Emily L. Levenson, Note, *A Missed Opportunity to Protect the Individual's Right to Privacy in His Home Under the Maryland Declaration of Rights*, 65 MD. L. REV. 1068, 1068–71, 1078–79 (2006) (discussing the Court of Appeals of Maryland's decision in *Fitzgerald v. State*, 864 A.2d 1006 (Md. 2004), a case in which a narcotic detector dog was used to sniff the exterior of an apartment and suggesting that a different outcome might have been warranted under the Maryland state constitution); Milton Hirsch & David Oscar Markus, *Drugs, Dogs, and Cars: Oh, My!*, THE CHAMPION, June 2005, at 48, 48–50 (discussing the holding in *Caballes* and suggesting that it was wrongly decided).

7. See, e.g., *Pooley v. State*, 705 P.2d 1293, 1311 (Alaska Ct. App. 1985) (holding that reasonable suspicion was required for a dog sniff of luggage); *People v. Unruh*, 713 P.2d 370, 379 (Colo. 1986) (holding that under the Colorado constitution dog sniffs are searches and permissible only when reasonable suspicion exists); *State v. Torres*, 645 A.2d 529, 533–34 (Conn. 1994) (declining to address the issue of whether dog sniffs are searches under the state constitution because the court found reasonable suspicion sufficient to warrant a search); *People v. Cox*, 739 N.E.2d 1066, 1073 (Ill. App. Ct. 2000) (finding that a dog sniff is a search requiring reasonable suspicion under the Illinois constitution); *State v. Wiegand*, 645 N.W.2d 125, 132–35 (Minn. 2002) (holding that under both the Fourth Amendment and the Minnesota constitution a dog sniff was not a search but still required reasonable suspicion); *State v. Tackitt*, 67 P.3d 295, 302–03 (Mont. 2003) (holding that the Montana constitution required “particularized suspicion” for a dog sniff); *State v. Pellicci*, 580 A.2d 710, 716–17 (N.H. 1990) (holding that a dog sniff of a vehicle is a search under the state constitution and requires reasonable suspicion); *Commonwealth v. Johnston*, 530 A.2d 74, 79 (Pa. 1987) (holding that a dog sniff is a search under the state constitution requiring both reasonable suspicion and lawful police presence); see also *State v. Dearman*, 962 P.2d 850, 853 (Wash. Ct. App. 1998) (going one step further and holding that a dog sniff of a residence is a search and requires not just reasonable suspicion but also a search warrant under the Washington constitution).

8. See *Caballes*, 543 U.S. at 409 (finding a dog sniff “sufficiently reliable” despite questions regarding false alerts); *United States v. Limares*, 269 F.3d 794, 797 (7th Cir. 2001) (finding a dog with a false alert rate of between 7% and 38% reliable); *United States v. Kennedy*, 131 F.3d 1371, 1378 (10th Cir. 1997) (utilizing evidence obtained by a drug dog with a 71% reliability rate); *United States v. Scarborough*, 128 F.3d 1373, 1378 & n.3 (10th Cir. 1997) (reasoning that a dog with career false alert rate of 8% is reliable); *Laime v. State*, 60 S.W.3d 464, 476 (Ark. 2001) (reasoning that a dog with between 10 and 50 false alerts is reliable).

in *Caballes*.⁹ As a result, lower courts continue to struggle crafting the contours of the law.¹⁰

This Comment explores the subtleties of the use of drug dogs. Specifically, it attempts to shed light on factors that should be considered in evaluating the efficacy of drug dog searches. It further attempts to fashion a workable standard for the proper weight to be afforded a drug dog alert to the exterior of a residence.

Part II of this Comment begins the discussion of the current law by looking more closely at the most important Supreme Court decisions regarding the use of drug dogs. These cases include *Caballes* and *Rabb I*, as well as *United States v. Place*¹¹ and *Kyllo v. United States*.¹²

Part III examines the issues implicated in evaluating the drug dog's abilities and reliability, the core concerns in determining where a dog sniff fits into the framework of Fourth Amendment jurisprudence.

Part IV addresses the differences between private residences and other targets of dog sniffs. This Part endeavors to determine whether the heightened Fourth Amendment protection afforded to homes should require a separate and distinct standard for dog sniffs.

Finally, Part V revisits the various considerations applicable to dog sniffs of homes and addresses what evidentiary weight a dog alert should be afforded. The Comment concludes by proposing a new standard for dog sniffs of homes, suggesting that before a dog sniff of a home is warranted, a reasonable suspicion should be required, and that a dog alert, standing alone, is insufficient to establish probable cause in the limited context of the home.

II. THE CURRENT LAW: FROM *PLACE* TO *RABB*

Much of the discussion surrounding the controversial topic of drug dog searches focuses on two decisions handed down by the Supreme Court, *Place* and *Caballes*.¹³ Additionally, the Supreme

9. *Rabb I*, 544 U.S. at 1028.

10. See *supra* notes 7–8 and accompanying text (discussing the varying approaches lower courts employ to interpret the appropriate use of drug dogs).

11. *United States v. Place*, 462 U.S. 696 (1983).

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

13. See Katz & Golembiewski, *supra* note 6, at 739–43, 746–50 (detailing the facts and analysis of both *Place* and *Caballes*); Ronen Morris, *James Otis, Paul Revere, a Routine Traffic Stop and the Massachusetts Supreme Judicial Court: When it Comes to Drug-Detection, It's Not Who Let the Dogs Out, It's Who Wouldn't?*, 12 SUFFOLK J. TRIAL &

Court's ruling in *Kyllo* has been an essential tool for defendants arguing that more stringent standards should apply to drug dog searches.¹⁴ In *State v. Rabb (Rabb II)*, the Florida District Court of Appeals considered each of the three previously mentioned cases in affirming its earlier ruling, which was vacated and remanded by the Supreme Court in *Rabb I*.¹⁵ These cases illustrate many of the legal issues that need to be considered when evaluating dog sniffs. More importantly, these cases fail to address a number of practical issues that should be considered in any judgment regarding dog sniffs.¹⁶

A. United States v. Place

In 1983, the U.S. Supreme Court held that a drug dog sniff was not "a 'search' within the meaning of the Fourth Amendment."¹⁷ This ruling was a significant victory for law enforcement even though the defendant's conviction was ultimately reversed on other grounds.¹⁸

In *Place*, the defendant, Raymond J. Place, purchased a ticket to travel from Miami International Airport to La Guardia Airport in New York. Place's behavior while waiting in line for the ticket aroused the suspicions of law enforcement officers in the airport, who stopped him as he headed to the gate for his flight. The officers questioned Place and he consented to a search of his luggage. However, the agents decided against the search because Place's flight was about to leave.¹⁹

APP. ADVOC. 121, 131–32 (2007) (examining the Supreme Court's failure to provide clear guidance regarding the reasonableness of extending traffic stops with the use of drug dogs); Richard E. Myers II, *Detector Dogs and Probable Cause*, 14 GEO. MASON L. REV. 1, 5–6 (2006) (discussing the Supreme Court's ruling in *Caballes* and its reliance on *Place*); Timothy C. Stone, Comment, *State v. Rabb: Dog Sniffs Close to Home*, 80 ST. JOHN'S L. REV. 1123, 1130–31 (2006) (noting the court's consideration and application of both *Place* and *Caballes* in the *Rabb* decision).

14. See, e.g., *United States v. Brock*, 417 F.3d 692, 695–96 (7th Cir. 2005) (discussing the defendant's reliance on the ruling in *Kyllo*); *State v. Rabb (Rabb II)*, 920 So. 2d 1175, 1182 (Fla. Dist. Ct. App. 2006) (concluding that *Kyllo* controlled the outcome of the case and granting the defendant's motion to suppress); *Rodriguez v. State*, 106 S.W.3d 224, 228 (Tex. App.—Houston [1st Dist.] 2003) (stating that the defendant relied on *Kyllo* in attacking his convictions for possession with intent to deliver methamphetamine and possession of marijuana).

15. *Rabb II*, 920 So. 2d at 1188–92 (distinguishing the facts of the case from *Caballes* and *Place* and reaffirming *Kyllo* as the controlling precedent).

16. See *infra* Part III (discussing how factors such as training methods, proper utilization of drug dogs, and statistical analyses of the reliability of drug dogs should affect law regarding dog sniffs).

17. *United States v. Place*, 462 U.S. 696, 707 (1983).

18. *Id.* at 710.

19. *Id.* at 698.

After Place's departure, the officers conducted further investigation that strengthened their suspicion that Place might be carrying contraband. The Miami officers then communicated the information about their encounter with Place and their subsequent investigation to Drug Enforcement Agency (DEA) agents at La Guardia Airport in New York.²⁰

Two DEA agents waited for Place at the airport gate in New York. The agents told Place that they suspected he might be carrying narcotics and asked for consent to search his luggage. This time, Place refused. The agents informed Place that they were seizing his luggage and offered him the opportunity to accompany them, but Place declined and continued on his trip.²¹

Roughly ninety minutes after seizing the luggage, the agents had a trained narcotic detector dog conduct a sniff of the unopened luggage. The dog alerted to one piece of Place's luggage. Because it was late on a Friday afternoon, the agents decided to hold the luggage until Monday morning, at which time they obtained a search warrant for the bag to which the detector dog alerted. The agents then opened the bag and discovered 1,125 grams of cocaine.²² Place pleaded guilty to possession of cocaine with intent to distribute.²³

In considering Place's appeal, Justice O'Connor, writing for the Court, reasoned that the ninety-minute delay between the seizure of the luggage and the dog sniff was unreasonable, and the conviction was therefore overturned.²⁴ She went on to discuss the dog sniff of the luggage at length. She found that because the dog sniff "does not expose noncontraband items" and "the sniff discloses only the presence or absence of narcotics[,] . . . the canine sniff is *sui generis*."²⁵ Justice O'Connor found that a dog sniff was not a search due in part to the limited information obtained by the sniff.²⁶ Her discussion of the dog sniff established important precedent that has been widely applied.²⁷ Because the

20. *Id.*

21. *Id.* at 698–99.

22. *Id.* at 699. A dog alert indicates the presence of the odor of a controlled substance. *See infra* Part III.A (distinguishing between detection of narcotics and detection of the odor of narcotics).

23. *Id.* at 700.

24. *Id.* at 710.

25. *Id.* at 707. "Sui generis" is a Latin term meaning "[o]f its own kind or class; unique or peculiar." BLACK'S LAW DICTIONARY 1475 (8th ed. 2004).

26. *Place*, 462 U.S. at 707.

27. *See Illinois v. Caballes*, 543 U.S. 405, 409 (2005) (citing *Place* and finding that a dog sniff of a vehicle legally stopped by police was not a search); *United States v. Jacobsen*, 466 U.S. 109, 122–24 (1984) (holding that *Place* "dictated" that a field test of suspected cocaine was not a search); *United States v. McDonald*, 100 F.3d 1320, 1325 (7th

reversal of the conviction in *Place* was based on the unreasonable detention of the luggage, the analysis of the dog sniff and subsequent finding that it was not a search were technically dicta.²⁸ However, Justice O'Connor's analysis has been given the force of law.²⁹ As the Ninth Circuit stated in *United States v. Beale*, "Whether or not the statement in *Place* was a holding or dictum, the Supreme Court has clearly directed the lower courts to follow its pronouncement."³⁰

Justice Brennan filed a concurring opinion in *Place*, but expressed his belief that any discussion regarding the Fourth Amendment status of a dog sniff was best saved for another day.³¹ Justice Blackmun likewise concurred in the judgment but stated that "[t]he Court's resolution of the status of dog sniffs under the Fourth Amendment is troubling."³² Both concurring opinions noted that *Place* did not raise the issue of the dog sniff's validity and found deciding the matter unnecessary.³³

B. *Kyllo v. United States*

The Supreme Court's decision in *Kyllo* did not involve a dog sniff. Rather, the case addressed the use of a thermal imaging device to reveal infrared radiation emitted from a residence.³⁴ Justice Scalia, writing for the majority, reasoned that because the thermal imager was capable of detecting intimate details,

Cir. 1996) (applying the *Place* dog sniff analysis to physical manipulation of luggage); *United States v. Rodriguez-Morales*, 929 F.2d 780, 788 (1st Cir. 1991) ("The force and import of this language [in *Place*] cannot seriously be questioned."); *United States v. Riley*, 927 F.2d 1045, 1048 n.4 (8th Cir. 1991) (commenting in a footnote that while the *Place* dog sniff analysis was dicta, it still suggested that a dog sniff was not a search); *United States v. Morales-Zamora*, 914 F.2d 200, 204 (10th Cir. 1990) (applying the *Place* reasoning in the context of dog sniffs during roadblocks); *United States v. Hardy*, 855 F.2d 753, 759 (11th Cir. 1988) (applying the *Place* reasoning to a dog sniff of a vehicle); *United States v. Alpert*, 816 F.2d 958, 961 (4th Cir. 1987) (holding that detention of luggage for a dog sniff was not a violation of the Fourth Amendment under *Place*); *United States v. Beale*, 736 F.2d 1289, 1290–91 (9th Cir. 1984) (relying on *Place* for the proposition that a dog sniff of luggage is not a search); *United States v. Alvarez*, No. 92-8541, 1993 WL 261146, at *3 (5th Cir. July 9, 1993) (unpublished opinion) (citing *Place* for the proposition that a dog sniff is not a search); *United States v. Cook*, No. 89-5947, 1990 WL 70703, at *3 (6th Cir. May 29, 1990) (unpublished table decision) (citing *Place* for the proposition that a dog sniff is not a search).

28. *Place*, 462 U.S. at 710–11 (Brennan, J., concurring).

29. See *Jacobsen*, 466 U.S. at 123–24 ("[T]he Court held [in *Place*] that subjecting luggage to a 'sniff test' . . . was not a 'search' within the meaning of the Fourth Amendment" (emphasis added)).

30. *Beale*, 736 F.2d at 1291.

31. *Place*, 462 U.S. at 720 (Brennan, J., concurring).

32. *Id.* at 723 (Blackmun, J., concurring).

33. *Id.*; *Id.* at 719 (Brennan, J., concurring).

34. *Kyllo v. United States*, 533 U.S. 27, 29–30 (2001).

such as “at what hour each night the lady of the house takes her daily sauna and bath,” its use constituted an invasion of the home and was therefore a search under the Fourth Amendment.³⁵ Justice Scalia believed that a thermal imager was capable of revealing information beyond mere detection of the presence of contraband or illegal activity.³⁶

The majority’s opinion in *Kyllo* neither discusses nor cites a single case involving a dog sniff.³⁷ However, *Kyllo* has been used by analogy to argue that a dog sniff is a sense-enhancing technology and should be considered a search.³⁸ The holding in *Kyllo* stressed that what made the invasion at issue a search was the nature of the protected privacy interest at stake, not the information obtained by the intrusion.³⁹

The dissent in *Kyllo* would have allowed the use of the thermal imager because the information obtained was infrared radiation escaping from the residence.⁴⁰ Justice Stevens, writing for the dissent, stressed that the collection of this sort of information “did not accomplish ‘an unauthorized physical penetration into the premises.’”⁴¹ He further argued that the use of the thermal imager was analogous to a search of property in plain view.⁴² Also, the dissent recognized the possibility that the *Kyllo* holding might be extended to scent detection.⁴³ Justice Stevens suggested that the *Kyllo* standard might be broadly read as applying to “mechanical substitutes for dogs trained to react when they sniff narcotics.”⁴⁴ He seemed content that the *Kyllo* standard would not be applied to dog sniffs themselves but rather to *technology* that might accomplish a similar result.⁴⁵

35. *Id.* at 38–40.

36. *See id.*

37. *Id.* at 29–40.

38. *See* United States v. Brock, 417 F.3d 692, 695–96 (7th Cir. 2005) (discussing the defendant’s reliance on the ruling in *Kyllo* in challenging a dog sniff of his bedroom door); State v. Rabb (*Rabb II*), 920 So. 2d 1175, 1182 (Fla. Dist. Ct. App. 2006) (holding that *Kyllo* controlled the outcome of the case and granting the defendant’s motion to suppress); Rodriguez v. State, 106 S.W.3d 224, 228 (Tex. App.—Houston [1st Dist.] 2003) (stating that the defendant relied on *Kyllo* in attacking his convictions for possession with intent to deliver methamphetamine and possession of marijuana).

39. *See Kyllo*, 533 U.S. at 39–40 (emphasizing the heightened protection of the home).

40. *See id.* at 43–44 (Stevens, J., dissenting) (differentiating between details inside the home and those that escape the home).

41. *Id.* at 43 (quoting *Silverman v. United States*, 365 U.S. 505, 509 (1961)).

42. *See id.* at 42 (noting that what a person exposes to the public is not subject to Fourth Amendment protection).

43. *See id.* at 46–47.

44. *Id.* at 47.

45. *See id.* at 47–48 (citing mechanical substitutes for dog sniffs, devices that detect

C. Illinois v. Caballes

In *Illinois v. Caballes*, the Supreme Court held that “[a] dog sniff conducted during a concededly lawful traffic stop that reveals no information other than the location of a substance that no individual has any right to possess does not violate the Fourth Amendment.”⁴⁶ The majority opinion in the case was authored by Justice Stevens and joined by Justices O’Connor, Scalia, Kennedy, Thomas and Breyer. Justices Ginsburg and Souter filed dissenting opinions.⁴⁷

In *Caballes*, Illinois State Trooper Daniel Gillette stopped Roy Caballes for speeding. Trooper Craig Graham, a narcotic detector dog handler, overheard Gillette’s radio transmissions and immediately drove to the scene with his canine partner. While Gillette was issuing Caballes a warning ticket, Graham walked his dog around Caballes’s vehicle. The dog alerted to the trunk, and the following search resulted in the discovery of marijuana.⁴⁸ Caballes was subsequently “convicted of a narcotics offense and sentenced to 12 years’ imprisonment and a \$256,136 fine.”⁴⁹ The Illinois Supreme Court reversed the conviction, concluding that because the troopers had no more than a “vague hunch” that Caballes was involved with narcotics, the dog sniff impermissibly enlarged the scope of the traffic stop into a drug investigation.⁵⁰

The question before the U.S. Supreme Court in *Caballes* was seen as very narrow: “Whether the Fourth Amendment requires reasonable, articulable suspicion to justify using a drug-detection dog to sniff a vehicle during a legitimate traffic stop.”⁵¹ The Illinois Supreme Court “characterized the dog sniff as the cause rather than the consequence of a constitutional violation.”⁵² Justice Steven noted, however, that the dog sniff could not change the nature of the otherwise lawful traffic stop unless the dog sniff itself “infringed respondent’s constitutionally protected interest in privacy.”⁵³ Furthermore, he stressed that there is no “legitimate” interest in possessing contraband and a dog sniff

deadly bacteria, and devices that detect explosives as sense-enhancing equipment that might be encompassed by the “far too broad” holding of *Kyllo*).

46. *Illinois v. Caballes (Caballes II)*, 543 U.S. 405, 410 (2005).

47. *Id.* at 405. Chief Justice Rehnquist did not participate in the decision.

48. *Id.* at 406.

49. *Id.* at 407.

50. *People v. Caballes (Caballes I)*, 802 N.E.2d 202, 205 (Ill. 2003).

51. *Caballes II*, 543 U.S. at 407 (citations omitted).

52. *Id.* at 408.

53. *Id.*

“that *only* reveals the possession of contraband ‘compromises no legitimate privacy interest.’”⁵⁴

While Justice Stevens’s majority opinion was a mere five pages, the two dissenters, Justices Souter and Ginsburg, wrote separate dissents totaling fifteen pages.⁵⁵ Justice Souter cited the characterization of dog sniffs in *Place* as “*sui generis*” and questioned whether such a characterization was valid.⁵⁶ He further noted that the decision in *Place* was based in part on the premise that drug dogs do not err and suggested the decision should be reconsidered given “[w]hat we have learned about the fallibility of dogs in the years since *Place* was decided.”⁵⁷ According to Justice Souter, “The infallible dog . . . is a creature of legal fiction.”⁵⁸ In support of this position, he cited cases where accuracy rates for drug dogs varied from 62% to 92% and mentioned the commonly held belief that a large percentage of U.S. currency is tainted with illegal narcotics.⁵⁹ For Justice Souter, this possibility for error “ends the justification claimed in *Place* for treating the sniff as *sui generis* under the Fourth Amendment.”⁶⁰

Justice Ginsburg, writing separately, questioned the majority’s holding not on the basis of the dog’s reliability, but rather on the scope of the investigation.⁶¹ She relied on the principles set forth in *Terry v. Ohio* regarding the reasonableness and scope of a police stop.⁶² Her main concern was the possibility of “suspicionless, dog-accompanied drug sweeps of parked cars along sidewalks and in parking lots” that might occur if dog sniffs were free of Fourth Amendment scrutiny.⁶³

D. Florida v. Rabb

In *Florida v. Rabb (Rabb I)*,⁶⁴ the U.S. Supreme Court reviewed a decision by the Florida District Court of Appeal, which affirmed a trial court’s suppression of marijuana and other

54. *Id.* (quoting *United States v. Jacobsen*, 466 U.S. 109, 123 (1984)).

55. *See id.* at 405–10; *id.* at 410–17 (Souter, J., dissenting); *id.* at 417–25 (Ginsburg, J., dissenting).

56. *Id.* at 410 (Souter, J., dissenting).

57. *Id.*

58. *Id.* at 411.

59. *Id.* at 412.

60. *Id.*

61. *See id.* at 419–21 (Ginsburg, J., dissenting) (analyzing the holding in light of *Terry v. Ohio*, 392 U.S. 1 (1968)).

62. *See id.*

63. *Id.* at 422.

64. *Florida v. Rabb (Rabb I)*, 544 U.S. 1028 (2005).

narcotics recovered from James Rabb's home pursuant to the execution of a search warrant.⁶⁵ In light of *Caballes*, the Supreme Court, without discussion, vacated and remanded the case to the Florida court for reconsideration.⁶⁶

James Rabb was arrested and charged with possession of 3, 4-methylenedioxymethamphetamine (MDMA or ecstasy), alprazolam (Xanax), and marijuana.⁶⁷ The Broward County Sheriff's Office received an anonymous tip that Rabb was growing marijuana inside his residence. Sheriff's detectives began surveillance and eventually conducted a traffic stop of Rabb's vehicle as it left the residence, resulting in Rabb's arrest for possession of marijuana. Detectives also found books and videos on the subject of marijuana cultivation inside the vehicle. Rabb stated that he only had an interest in cultivation. Following his arrest, he requested an attorney.⁶⁸

Detectives used a narcotic detector dog to conduct a sniff of Rabb's residence, resulting in an alert at the front door. Detectives then drafted a search warrant detailing their investigation, including the dog alert and the fact that they could smell marijuana emanating from the residence. After the search warrant was issued, detectives recovered marijuana, ecstasy, and Xanax from inside the residence.⁶⁹

Rabb filed a motion to suppress the recovered narcotics alleging that the dog sniff of the exterior of his residence was an illegal search and that in the absence of the dog alert there was no probable cause for a search warrant.⁷⁰ The trial court granted the motion to suppress, finding that the dog sniff was an unlawful search in violation of the Fourth Amendment.⁷¹ The State appealed, and the Florida District Court of Appeals for the Fourth District affirmed the suppression.⁷² The appellate court reasoned that *Kyllo* applied to this case because of the heightened protection afforded to the home under the Fourth Amendment. The court distinguished the case from *Place* by noting that luggage was afforded less protection than the home.⁷³ The court also stated that the case was similar to *Kyllo* in that

65. State v. Rabb (*Rabb II*), 881 So. 2d 587, 588 (Fla. Dist. Ct. App. 2004).

66. *Rabb I*, 544 U.S. at 1028.

67. *Rabb II*, 881 So. 2d at 588, 590.

68. *Id.* at 588–89.

69. *Id.* at 589–90.

70. *Id.* at 590.

71. *Id.*

72. *Id.* at 588.

73. *Id.* at 591–92.

law enforcement agents detected emanations from the residence through the use of “sense-enhancing technology.”⁷⁴ The court expressly equated the use of the drug dog to the use of the thermal imager in *Kyllo*. The appellate court also noted that the amount of information revealed by the dog sniff was superfluous because the injury lay in the nature of the intrusion, not “the quality or quantity of information obtained.”⁷⁵

On remand from the Supreme Court, the Florida District Court of Appeals again affirmed the motion to suppress and reiterated that *Kyllo*, not *Caballes*, controlled.⁷⁶ The court distinguished the search of Rabb’s home from the facts in *Caballes*, noting that the protection afforded to a vehicle on a public highway and that afforded to the home are greatly divergent.⁷⁷ The court noted that the home “stands strong and alone, shrouded in a cloak of Fourth Amendment protection.”⁷⁸ A subsequent petition for writ of certiorari was denied by the Supreme Court.⁷⁹

The discussion of the proper standards to be applied to detector dog searches necessarily must look to the span of cases from *Place* to *Rabb*. However, the courts in these decisions have not discussed many factors that are relevant to the analysis. Given the current application of the Fourth Amendment to the use of narcotic detector dogs, the Court should take a fresh look at the analysis in light of these additional factors.

III. HOW NARCOTIC DETECTOR DOGS WORK AND HOW TO EVALUATE THEIR EFFECTIVENESS

As discussed in Part II, one of the most important aspects of the Supreme Court’s approval of drug dog searches involves the limited aspect of their intrusion.⁸⁰ Justice O’Connor characterized a dog sniff as “*sui generis*” because it could reveal only contraband.⁸¹ However, as noted in Justice Souter’s dissent in *Caballes*, if the reliability of the drug dog is questioned, rather than assumed, the nature of the dog sniff might drastically

74. *Id.* (quoting *Kyllo v. United States*, 533 U.S. 27, 34 (2001)).

75. *Id.* at 592–93.

76. *State v. Rabb (Rabb III)*, 920 So. 2d 1175, 1188–90 (Fla. Dist. Ct. App. 2006).

77. *See id.* at 1189 (noting that focus was not on a stop of Rabb’s car, but rather a sniff of his home).

78. *Id.*

79. *Florida v. Rabb (Rabb IV)*, 549 U.S. 1052 (2006).

80. *See, e.g., United States v. Place*, 462 U.S. 696, 707 (1983) (noting that dog sniffs do not require an intrusion into the item searched).

81. *Id.*

change.⁸² Some scholars have criticized the Court's assumption that dogs are reliable and have called for more stringent evaluations of results in the field.⁸³ While it is prudent to subject each dog and handler team to some scrutiny regarding their reliability, suggestions that field utilizations should be the primary measure of the dog's reliability are misguided.

A. *Alerts, False Alerts, and the Language of Drug Dogs*

Any discussion of drug dogs and their searches will inevitably use the terms alert and false alert.⁸⁴ An alert by a drug dog is nothing more than the dog's signal to its handler that it has detected an odor it has been trained to locate. A dog can accomplish this by either a passive or aggressive alert. A passive alert generally consists of the dog merely sitting and looking at the area where it detects the source of the odor. An aggressive alert, as the name suggests, generally consists of the dog scratching or using some other active indication to the area where it detects the odor.⁸⁵

A false alert is a term that means different things to different people.⁸⁶ What exactly the expression means will likely depend on what side of a case one is arguing. A false alert to a drug dog handler is an alert to an area where there is no odor of a controlled substance. To a handler, a false alert only occurs in training because a controlled environment is the only place where a false alert can be confirmed. In contrast, those wishing to discredit drug dogs argue that a false alert is an alert to an area where no narcotics are recovered, whether in training or in the field.⁸⁷

82. See *Illinois v. Caballes*, 543 U.S. 405, 412–13 (2005) (Souter, J., dissenting) (suggesting that if dogs alert to legal items then the nature of the intrusion is not limited).

83. See Katz & Golembiewski, *supra* note 6, at 757–58 (citing Justice Souter's dissent in *Caballes* and suggesting that detector dogs are not extremely accurate); Myers, *supra* note 13, at 12–14 (highlighting Justice Souter's dissent in *Caballes* and suggesting that error rates are not the only relevant statistic).

84. See Interview with R. C. Smith, Former Head Narcotic Detector Dog Trainer, Houston Police Dep't, in Houston, Tex. (Nov. 21, 2007) (on file with Houston Law Review). R. C. Smith was a police officer with the Houston Police Department for more than 30 years. Officer Smith was a dog handler for more than 28 years and trained more than 100 detector dogs. In 2001, Officer Smith and his dog, Bronco, won the National Narcotic Detector Dog Association narcotics detection competition held in Houston, Texas. *Id.*

85. *Id.*

86. *Id.*

87. See *id.* (stating that the term is misleading and used by some to discredit detector dogs and noting that a true false alert can only occur in training).

Two other terms must be understood to fully explore the issues related to dog searches: contamination and residual odor.⁸⁸ Contamination occurs when the odor of a controlled substance, or a small, unseen amount of the substance, is left behind, thereby causing the dog to alert without the substance itself being recovered. The handlers may or may not find the source of the odor. They may discover evidence of the substance that created the alert, such as digital scales, packaging materials, dilutants, and other items commonly used in the drug trade.⁸⁹ In cases such as these, the controlled substance has left behind a residual odor.⁹⁰

Those who defend the reliability of the dog point out that alerts that do not result in discovery of narcotics are very difficult to interpret due to factors like contamination, residual odors, and various other issues.⁹¹ In order to resolve this conflict, one must look at what the dog is trained to find and understand both how the dog is used and the factors that affect its accuracy.

B. *What Narcotic Detector Dogs Are Trained to Do*

It is no secret that the nose of a dog is far more sensitive than the nose of a human.⁹² It should likewise be no surprise that dogs can detect very faint residual odors.⁹³

88. See *id.* (citing residual odor and contamination as causes of false alerts).

89. See Interview with Richard M. Corrales, Senior Police Officer/Narcotic Detector Dog Handler, Houston Police Dep't, in Houston, Tex. (Nov. 20, 2007) (on file with Houston Law Review). Officer Corrales has been with the Houston Police Department for more than seventeen years, spending the last fourteen years in the Narcotics Division working as an investigator, undercover officer, and dog handler. Officer Corrales has either conducted or observed hundreds of dog sniffs and searches during his tenure. *Id.*

90. See *id.* (discussing items that are often contaminated with the scent of narcotics).

91. See Telephone Interview with Tony Viator, Lieutenant, Narcotic Detector Dog Handler/Investigator, Jefferson County Sheriff's Office, Jefferson County, Tex. (Jan. 3, 2008) (on file with Houston Law Review) ("In the field there are far too many unknown factors that come into play, and it is impossible to classify an alert where no narcotics are found as a false [alert]."); see also Interview with Richard M. Corrales, *supra* note 89 ("There are too many unknowns [in the field] that make evaluating a non-productive alert difficult."); Interview with R. C. Smith, *supra* note 84 (stating that "dogs are trained to find odor" and listing residual odors, contamination, and errors made by searchers as reasons why dogs may alert to areas where narcotics are not found). Lieutenant Viator is a narcotic detector dog handler with seventeen years experience handling detector dogs. Lieutenant Viator has extensive experience training and handling detector dogs and is currently the First Vice President of the National Narcotic Detector Dog Association. Interview with Tony Viator, *supra*.

92. See MILO D. PEARSALL & HUGO VERBRUGGEN, SCENT: TRAINING TO TRACK, SEARCH, AND RESCUE 5-12 (1982) (discussing the function and anatomy of the canine nose and noting that "[t]he dog can smell some odors at as much as one part per trillion").

93. See *id.* at 5 (detailing the ability of a dog to detect extremely small

1. *Residual Odor—Finding an Invisible Target.* A residual odor is an odor of a substance that itself is no longer physically present.⁹⁴ A good example of this phenomenon is cigarette smoke.⁹⁵ The cigarette itself might be long gone, but the evidence of its use or possession (its smell) remains. The same is true for illegal narcotics. While the human nose probably will not detect these lingering odors, the dog's does so with ease.⁹⁶

A trained drug dog's sensitivity to residual odor means that there will be alerts that seemingly are incorrect.⁹⁷ This is caused not necessarily by the inaccuracy of the dog, but often by the limitations of their human handlers.⁹⁸ It is common for observers of a drug dog sniff to question the dog's reliability because they see an alert with no corresponding seizure of illegal narcotics.⁹⁹ It is exactly this fact that necessitates a fuller understanding of what the dog is trained to do.

2. *Odor Detection and Contamination.* A drug dog, also called a narcotic detector dog, suffers from a misconception as to its role. The dog's title and the results of its searches lead to this confusion. The title implies that the dog is trained to find narcotics, but this is not the case. A drug dog is in fact trained to find the odor of a controlled substance, not the drug itself.¹⁰⁰

This false impression occurs all too frequently. For example, one scholar cites a traffic stop during which a narcotic detector dog failed to alert to the stopped vehicle, showed interest in the driver, and alerted to the vehicle's passenger.¹⁰¹ Officers eventually located narcotics in the vehicle and on the driver, but failed to locate any narcotics on the passenger.¹⁰² However, the author criticized the results, claiming "the dog alerted when no drugs were present, failed to alert when they were, and, the one time the dog responded accurately, its handler misinterpreted

concentrations of odor over a large area).

94. Interview with R. C. Smith, *supra* note 84.

95. *Id.*

96. See PEARSALL & VERBRUGGEN, *supra* note 92, at 5 (comparing the ability of humans to detect small concentrations of a substance to that of canines).

97. Interview with R. C. Smith, *supra* note 84.

98. *Id.*

99. Interview with Richard M. Corrales, *supra* note 89.

100. Interview with R. C. Smith, *supra* note 84.

101. See Lammers, *supra* note 6, at 845–46 (discussing the author's skepticism about the reliability of detector dogs).

102. *Id.*

the dog's actions."¹⁰³ The article mistakenly equated the dog's success to finding the actual controlled substance, not the odor.¹⁰⁴

Consider that the passenger to whom the dog alerted was inside the vehicle where narcotics were eventually recovered.¹⁰⁵ This would likely explain why the odor of those narcotics was present on the passenger. It is also possible that just prior to the stop the passenger might have discarded narcotics that had been on his person or hidden them inside the vehicle. This is a common practice among narcotics users and dealers alike.

Another example of the misunderstanding of what the dog is trained to do is seen in Robert C. Bird's article.¹⁰⁶ Bird explains that "[a] dog that falsely alerts where narcotics were once present represents a less severe failure than a canine alert which reveals a harmless substance, or worse, no drug-related items at all."¹⁰⁷ The article takes a common situation, where no drugs are currently present but have been in the recent past, and asserts that the dog's alert to such an area is a "failure."¹⁰⁸ The scholar, like many people who misunderstand the dog's mission, confuses finding a recoverable quantity of narcotics with the true goal of the dog: finding the odor of narcotics.¹⁰⁹

It is important to realize that a dog often performs its job correctly even if narcotics are not recovered. This occurs, for instance, when the dog finds an empty secret compartment in a vehicle.¹¹⁰ Secret compartments are very common in the business of transporting narcotics, but they are not always filled with drugs.¹¹¹ These compartments are used on a regular basis and in

103. *Id.* at 846.

104. *Id.*

105. *Id.* at 845–46.

106. Robert C. Bird, *An Examination of the Training and Reliability of the Narcotics Detection Dog*, 85 KY. L.J. 405, 426 (1997).

107. *Id.* (citations omitted).

108. *Id.*

109. Interview with R. C. Smith, *supra* note 84.

110. See Interview with Tony Viator, *supra* note 91 (discussing alerts where no recoverable narcotics are found).

111. See, e.g., *United States v. Portes*, 505 F.3d 21, 22 (1st Cir. 2007) (explaining the methods used by a heroin distribution organization); *United States v. Cuellar*, 478 F.3d 282, 285 (5th Cir. 2007) ("Contraband is often transported in gas tanks and in secret compartments behind fender walls."); *United States v. Estrada*, 459 F.3d 627, 628–29 (5th Cir. 2006) (discussing 68 kilograms of marijuana found in a secret compartment in a gas tank); *United States v. Payne*, 119 F.3d 637, 640 (8th Cir. 1997) (detailing a dog alert to an empty secret compartment in a vehicle belonging to defendants found in possession of more than 20 kilograms of cocaine); *United States v. Lake*, 233 F. Supp. 2d 465, 467 (E.D.N.Y. 2002) (considering a motion to suppress evidence related to a seemingly empty secret compartment in the vehicle belonging to a defendant arrested for possession of cocaine and marijuana).

all likelihood contain trace amounts of drugs. More importantly, they are contaminated with the odor of whatever drug has been previously transported.¹¹² Therefore, although the officer searching such a compartment might find nothing, the dog may have correctly alerted.¹¹³ This of course means that a dog's perceived accuracy is actually diminished because of the dog's extreme sensitivity to residual odor.¹¹⁴

These examples illustrate that a detector dog is trained to find the odor of narcotics. It is then the job of the dog's handler or other law enforcement officers to use this information to locate and recover hidden narcotics.¹¹⁵

3. *Dogs as Screening Devices.* It has been suggested that law enforcement officials want ultra-sensitive dogs that alert more frequently, thus allowing the greatest number of searches.¹¹⁶ This argument misunderstands the role of the dog.¹¹⁷ While in many cases officers use drug dogs to establish probable cause, dog handlers and other law enforcement officials want dogs that are accurate.¹¹⁸ Because the dog is used as a screening device, an accurate dog will present officers with the best chance of conducting productive searches.¹¹⁹ It stands to reason that officers prefer to avoid possibly fruitless searches and use a dog to identify those searches with the highest probability of uncovering illegal narcotics.¹²⁰

112. See *Portes*, 505 F.3d at 22 (stating that a heroin distribution organization made weekly trips using a Buick with a secret compartment to transport currency and heroin); *United States v. Infante*, 404 F.3d 376, 382–83 (5th Cir. 2005) (discussing evidence that drug couriers used vehicles with secret compartments to transport marijuana on numerous occasions); *Burton v. United States*, 237 F.3d 490, 492 (5th Cir. 2000) (noting that defendants convicted of conspiracy to distribute cocaine had used car batteries and vehicles with secret compartments to transport crack cocaine more than 100 times).

113. See Interview with R. C. Smith, *supra* note 84.

114. See *id.*

115. See *id.* (noting that the dog and handler are a team and each has a role to perform).

116. See Myers, *supra* note 13, at 26–27 (“[T]he incentive for law enforcement is to get the most hypersensitive dog that passes constitutional muster.”).

117. See Interview with Richard M. Corrales, *supra* note 89 (stating that police officers use dogs as a sort of screening device).

118. See Interview with Richard M. Corrales, *supra* note 89 (discussing the importance of accuracy when conducting searches with dogs); Telephone Interview with Gray Smith, Lieutenant, Narcotics Division/Narcotic Detector Dog Unit, Houston Police Dep't, in Houston, Tex. (Nov. 15, 2007) (on file with Houston Law Review) (stating that drug dogs are “incredibly accurate and wonderful tools”); Interview with R. C. Smith, *supra* note 84 (stating dogs are very accurate if properly trained).

119. See Interview with Tony Viator, *supra* note 91 (discussing the reasons police officers want accurate dogs).

120. *Id.*

C. *The Dog's Environment—The Search and Search Area*

Understanding the role of drug dogs is but one step in the process of evaluating the dog's job and how well they do it.¹²¹ Another factor that greatly affects the dog's reliability is the context in which the dog is used.¹²² For example, handling a dog in a rural environment is different than working with a dog in an urban environment.¹²³

1. *How the Dog Is Deployed.* The nature of the dog's deployment makes a significant difference in evaluating its use and reliability. A drug dog used primarily in an urban setting will most often be used to search houses and vehicles belonging to lower level drug dealers.¹²⁴ The dog's targets are more often than not those who sell or transport small quantities of drugs, many times, on a day to day basis.¹²⁵

A drug dog deployed in a more rural setting is often used to conduct highway interdiction investigations or to target drug couriers.¹²⁶ Drug couriers are more likely to be transporting larger quantities of illegal narcotics, often over long distances.¹²⁷ Rarely do these couriers conduct their activities on a daily basis; instead they carry drugs only sporadically.¹²⁸ Unlike urban drug dealers, who often use the same vehicle to transport their drugs every day, couriers drive different vehicles or even rental vehicles.¹²⁹

These differences are significant and should not be overlooked. Vehicles, and even homes, in an urban setting are more likely to be contaminated with the odor of the illegal substances that their owners sell, store, or transport.¹³⁰ Although the vehicles used by couriers in rural settings often contain large quantities of illegal substances, the amount of time that the

121. See Interview with R. C. Smith, *supra* note 84 (noting that there are multiple factors that affect a dog's reliability).

122. Interview with Tony Viator, *supra* note 91; see also Interview with Richard M. Corrales, *supra* note 89 (discussing how large cities such as Houston present contamination issues); Interview with R. C. Smith, *supra* note 84 (discussing the differences between a dog's training in a sterile environment and its actual field deployment).

123. Interview with R. C. Smith, *supra* note 84.

124. Interview with Richard M. Corrales, *supra* note 89.

125. *Id.*

126. Interview with R. C. Smith, *supra* note 84.

127. See Interview with Richard M. Corrales, *supra* note 89.

128. *Id.*

129. *Id.*

130. See Interview with R. C. Smith, *supra* note 84 (suggesting that residual odor is likely more common in urban settings).

drugs are present in those vehicles is short and inconsistent.¹³¹ Thus, the likelihood of contamination in most rural searches is reduced.¹³²

These factors may seem inconsequential with regard to drug dog searches of homes, but they are nonetheless significant. Vehicle searches generally comprise a large percentage of the total searches conducted by any given drug dog.¹³³ Therefore, understanding the factors that affect the results of vehicle searches leads to a better understanding of just how reliable the particular dog has been.¹³⁴ This understanding allows for better evaluation of drug dog searches of homes.

2. *Primary v. Secondary Searches.* In addition to the setting of the search, another important element regarding the context in which the dog is used is the nature of the search conducted.¹³⁵ It is important to consider whether the dog conducts a primary search or a secondary search.¹³⁶ A primary search occurs when the dog conducts the first or initial search of the target.¹³⁷ A secondary search is simply when the dog conducts a search subsequent to an initial human search.¹³⁸ In cases where the dog conducts the primary search, the accuracy of the dog should be greater because the search area will be more pristine.¹³⁹ Because the dog searches for an odor, it is important that air currents be undisturbed.¹⁴⁰ If the search area is disturbed, the air currents may be altered, and the odor of the substance can be diverted from the source of the odor.¹⁴¹ The dog can still locate the source, but the job of both dog and handler is complicated, thus making errors more likely.¹⁴²

131. Interview with Richard M. Corrales, *supra* note 89.

132. *See id.*

133. Interview with R. C. Smith, *supra* note 84; *see also* Interview with Richard M. Corrales, *supra* note 89 (noting the case of a particular drug dog and explaining that a majority of its searches are of vehicles).

134. *See* Interview with Richard M. Corrales, *supra* note 89 (discussing the various factors that affect reliability).

135. *See* Interview with R. C. Smith, *supra* note 84 (explaining that drug dogs perform differently in different types of searches); Interview with Tony Viator, *supra* note 91 (describing the effect that different types of searches have on the performance of a drug dog).

136. Interview with Tony Viator, *supra* note 91; *see also* Interview with R. C. Smith, *supra* note 84.

137. Interview with R. C. Smith, *supra* note 84.

138. *Id.*

139. Interview with Tony Viator, *supra* note 91; *see also* Interview with R. C. Smith, *supra* note 84.

140. Interview with R. C. Smith, *supra* note 84.

141. *Id.*

142. *Id.*

Another consideration with regard to primary versus secondary searches is contamination.¹⁴³ In cases where law enforcement searches an area and then requests a drug dog, there is always a possibility that the search area has been contaminated.¹⁴⁴ When officers conduct the initial search, there is a chance that those officers have handled illegal narcotics very recently.¹⁴⁵ The officers may have even removed narcotics from the search area, making it more likely that the officers left residual odor in their wake.¹⁴⁶ This can cause an alert to seem erroneous.¹⁴⁷ Thus, it is imperative that the context and nature of the dog's search be considered when attempting to evaluate the dog's performance.¹⁴⁸

D. Alerts to Innocent Odors

Another factor that critics suggest decreases the reliability of drug dogs is the possibility that dogs may alert to odors of legal substances.¹⁴⁹ This argument has some merit in cases where dogs are trained to locate the odor of substances that are legal to possess, such as prescription drugs or alcohol.¹⁵⁰ However, for dogs trained to find only the odor of controlled substances, the argument loses its traction.

Take, for example, methyl benzoate, a chemical commonly found in illicit cocaine, but that is also used in a number of legal substances. Some have suggested that substances containing methyl benzoate, like many perfumes, might trigger a drug dog alert.¹⁵¹ However, none of the handlers interviewed for this Comment had ever experienced unexplained alerts to perfumes or colognes.¹⁵² One dog trainer and handler stated that he had searched thousands of pieces of luggage over the years and had never observed a pattern of alerts to bags that contained

143. Interview with Richard M. Corrales, *supra* note 89.

144. *Id.*

145. *Id.*

146. Interview with R. C. Smith, *supra* note 84.

147. *Id.*

148. *See* Interview with Richard M. Corrales, *supra* note 89 (stating that context must be considered when evaluating a dog's performance in the field); Interview with R. C. Smith, *supra* note 84 (same); Interview with Tony Viator, *supra* note 91 (same).

149. *See* Katz & Golembiewski, *supra* note 6, at 754–56 (suggesting that there are several situations where detector dogs might in fact alert to legal substances rather than contraband).

150. *Id.* at 754–55.

151. *See id.* at 755–56 (suggesting that detector dogs might falsely alert to many legal products containing methyl benzoate).

152. Interview with Richard M. Corrales, *supra* note 89; Interview with R. C. Smith, *supra* note 84; Interview with Tony Viator, *supra* note 91.

perfumes alone, without any illegal narcotics.¹⁵³ Another handler stated that his dog had repeatedly passed up bottles of perfume without even the slightest interest.¹⁵⁴ Therefore, it appears that this criticism may be unfounded.

In addition, there has been some scientific experimentation that contradicts the notion that dogs alert to perfumes because of their methyl benzoate concentration.¹⁵⁵ One article, published in 2002, included an experiment that tested narcotic detector dogs on various cocaine byproducts.¹⁵⁶ One of the samples tested was a perfume containing methyl benzoate.¹⁵⁷ In that experiment, none of the detector dogs alerted to the perfume sample.¹⁵⁸ The same experiment yielded consistent alerts to nonperfume samples with concentrations of methyl benzoate above ten micrograms.¹⁵⁹

This study also found that “methyl benzoate readily forms in cocaine formulations over a period of time . . . but does not form to any appreciable extent in pharmaceutical-grade cocaine.”¹⁶⁰ This suggests that any concerns of dogs alerting to prescribed cocaine, as suggested by some, are unwarranted or at least overstated.¹⁶¹

While there are suggestions that detector dogs might alert to legal substances, these propositions are based on conjecture and have no evidentiary basis.¹⁶² Critics in support of this argument cite the notion that dogs often alert to areas where no narcotics are recovered. However, this suggestion ignores the fact that drug dogs are trained to find the odor of a controlled substance and not the substance itself.¹⁶³

153. Interview with R. C. Smith, *supra* note 84.

154. Interview with Richard M. Corrales, *supra* note 89.

155. See generally Kenneth G. Furton et al., *Identification of Odor Signature Chemicals in Cocaine Using Solid-Phase Microextraction-Gas Chromatography and Detector-Dog Response to Isolated Compounds Spiked on U.S. Paper Currency*, 40 J. CHROMATOGRAPHIC SCI. 147, 147–55 (2002) (summarizing the results of several experiments using narcotic detector dogs and various substances).

156. *Id.*

157. *Id.* at 151–55.

158. *Id.* at 153.

159. *Id.* Ten micrograms is the equivalent of ten millionths of a gram. DORLAND'S ILLUSTRATED MEDICAL DICTIONARY 1153 (30th ed. 2003) (defining a microgram as “a unit of mass, being one millionth (10⁻⁶) of a gram”).

160. Furton et al., *supra* note 155, at 153–54.

161. See Katz & Golembiewski, *supra* note 6, at 755 (noting that cocaine can be legally possessed and expressing concern that drug dogs cannot distinguish between legal and illegal cocaine).

162. See *id.* at 755–56 (suggesting that dogs might alert to legal substances but presenting no evidence of actual instances of such behavior).

163. See *supra* Part III.B.2.

Additionally, the experience of dog handlers, along with scientific experimentation, indicates that properly trained dogs do not alert to noncontraband odors.¹⁶⁴

E. What Does a Dog Alert Mean?

Apart from the possibility that dogs might err in the field, some commentators have also insinuated that a dog alert actually does not significantly increase the odds that narcotics are present.¹⁶⁵

1. *Bayes' Theorem and Dog Alerts.* One manner in which the reliability of narcotic detector dogs has been questioned is through the use of statistical analysis. One recently published article applies Bayes' Theorem, a formula used in the scientific community to evaluate the value of new information, to dog alerts, concluding that a 90% accurate detector dog will actually result in recovery of narcotics only 16% of the time.¹⁶⁶ The rationale behind this conclusion is that if only one in fifty cars contains narcotics, then a 90% accurate dog will indicate narcotics only 16% of the time because officers stop a predominantly innocent population.¹⁶⁷ The article places greater importance on false positives as opposed to false negatives, or cases where the dog fails to alert in the presence of narcotics, and deals with 90% accuracy with regard to false positives.¹⁶⁸

Replication of these calculations is outside the scope of this Comment, but one need only consider the premise and not the actual calculations to see the fallacy of this argument. The article itself explains that 90% accuracy in regard to false positives means the dog "alerts when drugs are not present ten percent of the time."¹⁶⁹ This definition immediately dooms the evaluation. Accuracy with regard to a narcotic detector dog is measured based on the total number of alerts in relation to the number of

164. Interview with Richard M. Corrales, *supra* note 89; Interview with R. C. Smith, *supra* note 84; Interview with Tony Viator, *supra* note 91. See generally Furton et al., *supra* note 155, at 154–55 (noting that although some fragrances contain methyl benzoate, the chemical responsible for alerting detector dogs to cocaine, the dogs tested did not alert to the fragrances themselves).

165. See Myers, *supra* note 13, at 12–15 (using Bayes' Theorem to evaluate the value of a dog alert).

166. *Id.* at 13–15.

167. *Id.* at 15 ("Because there are more cars without drugs in them, the gross number of searches that result from the error rate will be higher than the gross number of searches that result from correct alerts.").

168. *Id.*

169. *Id.* at 13–14.

alerts that yield narcotics.¹⁷⁰ The definition given for purposes of the Bayesian analysis mistakenly shifts this to mean that the dog will alert in 10% of the total searches when drugs are not present.¹⁷¹ The end result of these flawed calculations indicates far more innocent, rather than guilty, people would be searched by the 90% accurate dog.¹⁷²

Another scholar likewise misconstrues the proper evaluation of accuracy with regard to dog searches.¹⁷³ In his article, Bird assumes a dog that is 98% accurate with regard to both false negatives and false positives.¹⁷⁴ The article then proposes a random sniff of 10,000 objects by the dog.¹⁷⁵ The article then further assumes “that 0.5% of the population at large has drugs on their possession.”¹⁷⁶ This means that of the 10,000 objects only 50 will in fact possess narcotics.¹⁷⁷

This seems to be a correct beginning for using Bayes’ Theorem, as the calculations require that one know the test’s rate of false negatives (sensitivity), the rate of false positives (specificity), and the probability of the condition in the general population.¹⁷⁸ However, in the medical community, Bayes’ Theorem is used to evaluate medical screening tests, using clinical observations to set the values for sensitivity and specificity.¹⁷⁹ In the case of a detector dog, the accuracy figures are not determined in a laboratory but in the field.¹⁸⁰ Dog alerts and their results in the field are recorded, but the results of each sniff or search are not.¹⁸¹ This is because in the field a dog might

170. Interview with Richard M. Corrales, *supra* note 89.

171. See Myers, *supra* note 13, at 13–14.

172. See *id.* at 15 (“[T]he gross number of searches that result from the error rate will be higher than the gross number of searches that result from correct alerts.”).

173. See Bird, *supra* note 106, at 427–28 (explaining that a 98% accurate detector dog will alert in error in 2% of the total searches of objects that do not contain narcotics).

174. *Id.* (asserting that 98% accuracy for a detection dog “means that whenever drugs are present, the dog will alert 98% of the time” and “whenever drugs are absent, the dog team will not alert 98% of the time”).

175. *Id.* at 428.

176. *Id.*

177. *Id.*

178. See James Joyce, *Bayes’ Theorem*, in THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N. Zalta ed., 2008), available at <http://plato.stanford.edu/archives/fall2008/entries/bayes-theorem> (indicating that the listed data are often used by physicians when applying Bayes’ Theorem).

179. See *id.* (“[P]hysicians often screen for diseases of known prevalence using diagnostic tests of recognized *sensitivity* and *specificity*.”); see also Richard Lowry, *Bayes’ Theorem: Conditional Probabilities*, <http://faculty.vassar.edu/lowry/bayes.html> (last visited Mar. 6, 2009) (describing how Bayes’ Theorem could be applied to a hypothetical medical test).

180. See Interview with Richard M. Corrales, *supra* note 89.

181. See *id.*

search a car or house that contains dozens, or even hundreds of individual items.¹⁸² Each item the dog sniffs is in fact a test.¹⁸³ Unfortunately, the only information one can gather with any reliability in the field is the number of times the dog alerts and the results of the search of the item to which the dog alerted.¹⁸⁴ Therefore, the rate of false negatives is completely unknown.¹⁸⁵ In the field, if a dog fails to alert, there is generally no search and therefore the results of the non-alert can be neither verified nor contradicted.¹⁸⁶ Likewise, the results of a positive alert where no narcotics are recovered cannot be said to be definitively false, as the prior discussion has illustrated.

The measure of a dog's accuracy derived from training exercises is more precise, but it also fails to account for the total number of tests, or sniffs, the dog conducts.¹⁸⁷ Bayes' Theorem deals with the number of false positives and negatives out of the total number of tests.¹⁸⁸ Dog training measures only the number and accuracy of alerts.¹⁸⁹

In addition to using improper measures of accuracy, these calculations ignore the fact that law enforcement often deals with subsets of the population that are far more likely to possess illegal narcotics or other contraband.¹⁹⁰ Bird's analysis assumes a population with a probability of a mere 0.5% incidence of drug possession.¹⁹¹ This might be true of certain populations, but law enforcement officers, especially those in narcotics enforcement positions, are trained to recognize signs of drug use or sales.¹⁹²

182. *See id.*

183. *See id.* (suggesting that a dog may be tested multiple times during a deployment due to the fact they may be required to search multiple items).

184. *Id.*

185. *See id.* (stating that deployment records include "each alert and the results" without any mention of including information regarding potential false negatives).

186. *See* Interview with Tony Viator, *supra* note 91 (noting that if a dog does not alert during a vehicle search, the police "send the violator on their way").

187. *See* Interview with Richard M. Corrales, *supra* note 89 (explaining that training accuracy is based on correct alerts versus total alerts, not the total number of tests conducted, thus suffering from the same inaccuracy as field records).

188. *See* Lowry, *supra* note 179 (explaining that 99% accuracy relates to 99% of all positive samples testing positive, a measure based on the total number of tests).

189. *See* Interview with Richard M. Corrales, *supra* note 89 (explaining that a dog's accuracy is measured by looking to the total number of alerts versus the number of alerts that result in a finding of narcotics or a verifiable odor of narcotics).

190. *See id.* ("[I]f you are a narcotics officer and know your business, then the percentage [of the population you investigate that is in possession of narcotics] will be very high.").

191. Bird, *supra* note 106, at 428. The article goes on to note that if the percentage of drug possession within the population investigated is increased to 50% due to law enforcement's experience, the dog's accuracy remains at 98%. *Id.* at 430.

192. Interview with Richard M. Corrales, *supra* note 89.

Additionally, many narcotics enforcement units are deployed in the highest crime areas with extremely high rates of narcotics activity.¹⁹³ Ignoring these factors further skews any attempted statistical analysis based on Bayes' Theorem or similar formulas.¹⁹⁴

Despite having no measures of accuracy that truly reflect the dog's abilities, Bird calculates that of 10,000 sniffs a dog will correctly alert to forty-nine of fifty objects that contain narcotics. The article then suggests that a 98% accurate dog will alert to 199 of the remaining 9,950 objects. This yields a total of 248 alerts with only 49 resulting in the recovery of narcotics. Based on these calculations, such a dog would have "a detection rate of less than 20%."¹⁹⁵ Thus, this method of statistical analysis misconstrues the measure of the dog's accuracy.¹⁹⁶

2. *A More Accurate Look at Accuracy.*¹⁹⁷ In order to effectively evaluate a dog's performance, one must understand how the results of training and field searches are kept and what they actually measure.

A dog handler records every utilization of his dog.¹⁹⁸ These records indicate whether or not there was an alert and the results of any search subsequent to an alert.¹⁹⁹ However, they do not take into account the actual amount of work the dog does in searching an area.²⁰⁰ For instance, one utilization might include multiple items for the dog to sniff. Measures that do not consider this can be misleading.²⁰¹

Consider Gruffy, a recently retired narcotic detector dog that I handled for roughly six years as a narcotic detector dog handler for the Houston Police Department. Gruffy's deployment records suffer from the same inaccuracies as any other dog, as the contents of items to which there was no alert are unknown and

193. *Id.*

194. *See id.* (stating that statistical analysis is difficult because of the numerous uncontrolled factors involved in dog searches).

195. Bird, *supra* note 106, at 428.

196. *See* Interview with Richard M. Corrales, *supra* note 89 (explaining that statistical analysis is often skewed regarding a dog's accuracy because it does not include the total number of items searched or properly account for police training).

197. This Section contains personal observations of the Author based on his experience as a police officer and dog handler and will contain references in the first person.

198. Interview with Richard M. Corrales, *supra* note 89.

199. *Id.*

200. *Id.*

201. *See id.* (discussing how field data can skew accuracy figures by understating the number of searches performed by the dog).

the true reason for alerts where no narcotics were recovered remains subject to debate.²⁰²

From July 2000 until his retirement in October 2006, Gruffy and I conducted 2,107 “searches.”²⁰³ This does not reflect the actual number of items searched, but rather the number of utilizations. There were 869 alerts observed. Of the 869 alerts, 612 resulted either in the recovery of narcotics or the discovery of verifiable but unrecoverable amounts of narcotics. That means that only 70.4% of Gruffy’s alerts led directly to a recovery or the verified existence of narcotics.²⁰⁴ The records do not contain enough information to evaluate the 257 alerts not accompanied by a seizure. However, my experience was that a great many of those alerts were to areas where narcotics had previously been recovered during the primary search or to areas where there were scales, packaging materials, ledgers, and other evidence of narcotics activity. These types of items are likely to be contaminated with the odor of narcotics.²⁰⁵

Gruffy’s accuracy percentage as measured in the field may not seem extremely high, but consider that if the total number of items searched was included, the accuracy percentage would be considerably increased. Gruffy conducted 762 searches of houses, apartments, other residences, and commercial buildings.²⁰⁶ These searches often involve hundreds of items for the dog to sniff and evaluate; yet for record keeping purposes, each utilization is merely designated as one search.²⁰⁷ If one assumes for the purpose of illustration that each search area contained a fairly modest number of twenty items, then Gruffy’s actual number of searches would jump to 42,140.²⁰⁸ By subtracting the number of correct alerts from this number and then adding the 257 alerts that could not be verified, a new accuracy percentage can be figured. The new accuracy percentage would be approximately 99.4%.²⁰⁹

202. See HOUSTON POLICE DEP’T, CANINE HANDLER ACTIVITY REPORT FOR HANDLER M. E. SMITH AND CANINE “GRUFFY” FOR PERIOD JULY 20, 2000 TO OCT. 31, 2006 (2007) (hereinafter GRUFFY ACTIVITY REPORT) (on file with Houston Law Review) (demonstrating that items to which a dog does not alert are not tracked and no justifications are recorded for alerts that do not result in a seizure).

203. *Id.*

204. *See id.*

205. See Interview with Richard M. Corrales, *supra* note 89 (explaining that these sorts of items “are often around the narcotics on a consistent basis and pick up residual odor or contamination”).

206. GRUFFY ACTIVITY REPORT, *supra* note 202.

207. The Author has conducted more than 1,000 searches of residences in his law enforcement career.

208. See GRUFFY ACTIVITY REPORT, *supra* note 202.

209. This method of determining accuracy would be based on 42,140 total searches,

The only practical way to measure the accuracy of a detector dog is to look at the number of alerts where narcotics are recovered versus the number of alerts where no narcotics are recovered.²¹⁰ Keeping track of literally thousands of individual items the dog sniffs and evaluates during its career is simply not feasible given the time and effort such accounting would entail.²¹¹

F. Cuing as a Training Issue

Another factor cited by some as negatively affecting detector dog reliability is the problem of cuing.²¹² It is suggested that dogs learn to recognize, and subsequently alert to, behavioral changes their handlers exhibit when the handler believes narcotics to be present.²¹³ Cuing is a concern given the amount of time dog and handler spend together, but with proper training it can be avoided.²¹⁴

Training methods can and should eliminate this problem if handlers conduct training searches without knowing where the narcotics are hidden.²¹⁵ If the handler does not know the location of the controlled substance, it is less likely that the handler will exhibit any behavioral changes that could cue the dog.²¹⁶ Instead, the handler learns both to recognize the dog's behavioral changes as it pinpoints the odor and better understand the dog's response.²¹⁷

G. Training Records

There are numerous factors that affect the evaluation of a detector dog's performance in an uncontrolled environment.

612 correct alerts, and 257 alerts without seizures. 42,140 minus 612 equals 41,528 non-alerts to (presumably) innocent items. 41,528 plus 257 (alerts to innocent items) equals 41,785 searches of innocent items. 41,528 divided by 41,785 equals 99.4% accuracy in total searches.

210. See Interview with Richard M. Corrales, *supra* note 89 (showing the potential difficulty in tracking the number of individual items searched).

211. See *id.* (stating that "you don't have any way of knowing" exactly how many items a dog has sniffed during a search and suggesting that if one was to try and account for this information, one would encounter difficulties).

212. See Myers, *supra* note 13, at 23–24 ("[Cuing may make it] objectively difficult to tell in a particular case if the dog is responding to the odor of drugs . . . or to his handler's belief that . . . this person probably has drugs.").

213. See *id.* at 22–23 (detailing cases where handler behavior might have contributed to the dog alert).

214. Interview with R. C. Smith, *supra* note 84.

215. See *id.* (explaining that allowing a handler to know where the drugs are hidden during a training exercise is an improper training technique).

216. See *id.*

217. See *id.* (explaining that a handler should not micromanage the search).

Training provides a situation where many extraneous factors can be controlled and some eliminated.²¹⁸ This does not render deployment records and field results superfluous but rather points to the importance of understanding the role of the dog and the context of its performance.

Unfortunately, even the training records of detector dogs do not tell the entire story.²¹⁹ There are no national standards for such training, so evaluation of training records is difficult.²²⁰

It is only by considering training and deployment records together, along with testimony about training methods and each handler's evaluation of his dog, that an accurate picture of a dog's reliability is formed.²²¹

H. Conclusions About Reliability

A review of cases involving dog alerts shows that detector dogs generally do a good job of finding illegal narcotics.²²² While several theories suggest that narcotic detector dogs may not be as reliable as courts have presumed, there is little evidence that supports these concerns.²²³ Given these facts, and despite suggestions to the contrary, it appears likely that most detector dogs alert only to controlled substances. This supports Justice O'Connor's assertion in *Place* that drug dogs alert only to contraband and thus represent a limited intrusion.²²⁴ It also distinguishes a detector dog search from the more intrusive thermal imager searches of *Kyllo*. The question is whether this

218. *See id.*

219. *See id.*

220. Interview with Tony Viator, *supra* note 91 (explaining that while a national certification standard for detector dogs would be helpful, the current disagreements among experts in the field make such a standard unlikely).

221. *Id.*; *see also* Interview with R. C. Smith, *supra* note 84.

222. *See Illinois v. Caballes*, 543 U.S. 405, 406 (2005) (noting that a dog alert led to recovery of marijuana from a vehicle's trunk); *United States v. Place*, 462 U.S. 696, 699 (1983) (stating that a dog alert led to the recovery of more than a kilogram of cocaine); *United States v. Rodriguez-Morales*, 929 F.2d 780, 783 (1st Cir. 1991) (stating that a dog alert led to the recovery of two kilograms of cocaine from the door of a vehicle); *United States v. Riley*, 927 F.2d 1045, 1047 (8th Cir. 1991) (stating that a dog alert led to the recovery of more than 250 grams of cocaine from inside a suitcase); *United States v. Morales-Zamora*, 914 F.2d 200, 201 (10th Cir. 1990) (stating that a dog alert led to the recovery of 126 pounds of marijuana).

223. *See Katz & Golembiewski*, *supra* note 6, at 754–57 & n.77 (suggesting that well-trained narcotic detector dogs do not alert only to contraband but citing no examples of an alert to a legal substance and noting that their tests indicated that dogs had no interest in hemp products); Myers, *supra* note 13, at 22–23 (stating that cuing is a problem but failing to cite any confirmed cases of such behavior).

224. *See Place*, 462 U.S. at 707 (finding that a dog sniff is not a search because it discloses only contraband).

limited intrusion is appropriate with regard to the search of a residence, and if so, how much weight a dog alert should be afforded.

IV. THE FOURTH AMENDMENT AND THE HOME

The Supreme Court has recognized that “[n]o property is more sacred than one’s home.”²²⁵ In *Kyllo*, Justice Scalia concluded that the perceived privacy inside the home is the prototypical example of an “expectation of privacy that society is prepared to recognize as reasonable.”²²⁶ In light of this recognition, the question of whether the standards set forth by the Supreme Court in *Place* and *Caballes* should apply to the home is a difficult one. Although the nature of the intrusion itself is the same,²²⁷ the home has enjoyed a greater protection than mere luggage or a vehicle.²²⁸ A search of the exterior of a vehicle is usually conducted on a public roadway.²²⁹ Similarly, luggage is generally searched at an airport, bus terminal, or other public locale.²³⁰ The home presents an altogether different scenario. To search the exterior of the home, the handler and the dog must physically enter the property of the homeowner.²³¹ This accessibility may be available not only to the dog and handler, but to every other member of society.

A. *The Dog Alert and Probable Cause*

The Supreme Court has stated that probable cause is “not readily . . . reduced to a neat set of legal rules.”²³² To determine whether there is probable cause, one must review the historical facts from the perspective of an objectively reasonable police

225. *Sentell v. New Orleans & Carrollton R.R. Co.*, 166 U.S. 698, 704–05 (1897).

226. *Kyllo v. United States*, 533 U.S. 27, 34 (2001).

227. *See State v. Rabb (Rabb III)*, 920 So. 2d 1175, 1184 (Fla. Dist. Ct. 2006) (noting that the distinguishing factor was the place searched, rather than the nature of the intrusion).

228. *See Kyllo*, 533 U.S. at 37 (“In the home, our cases show, *all* details are intimate details, because the entire area is held safe from prying government eyes.”); *Silverman v. United States*, 365 U.S. 505, 511 (1961) (stating that “the right of a man to retreat into his own home and there be free from unreasonable government intrusion” is at the core of the Fourth Amendment); *United States v. Thomas*, 757 F.2d 1359, 1366 (2d Cir. 1985) (“[A] practice that is not intrusive in a public airport may be intrusive when employed at a person’s home.”).

229. Interview with Richard M. Corrales, *supra* note 89.

230. Interview with R. C. Smith, *supra* note 84.

231. *See id.* (discussing the ability of drug dogs to detect odors emanating from houses).

232. *Maryland v. Pringle*, 540 U.S. 366, 371 (2003) (quoting *Illinois v. Gates*, 462 U.S. 213, 232 (1983)).

officer.²³³ This standard requires considerably less than a preponderance of the evidence standard.²³⁴ The question that must now be answered is what role the dog sniff plays in the evaluation of probable cause to search a home.

If the rationale of *Place* is indeed supported, and dogs alert only to contraband, then a dog alert to the exterior of the house indicates only the presence of the odor of illegal narcotics.²³⁵ If the dog alerts to the odor of illegal narcotics at the exterior of a home, what is the implication? Does that alert mean that it is probable that illegal narcotics are currently inside the house? Does the alert, standing alone, establish probable cause to search the home? The answer depends on the dog's observed reliability, among various other factors. Because the dog can alert to the odor of narcotics that may have previously been present, the answer is complicated. This applies equally to a dog sniff of a vehicle or of luggage. While the answer may ultimately be the same, the import of the answer is not.

B. *Planes, Trains, Automobiles, and the Home*

When a dog alerts to the exterior of a vehicle, a search of that vehicle is justified.²³⁶ An officer can conduct that search without a warrant based on the vehicle exception to the Fourth Amendment.²³⁷ This exception allows the warrantless search based on the fact that vehicles are "readily mobile by the turn of an ignition key" and because "there is a reduced expectation of privacy stemming from its use as a licensed motor vehicle subject to a range of police regulation inapplicable to a fixed dwelling."²³⁸ The vehicle exception has also been extended to other means of transportation, such as airplanes and trains.²³⁹ As noted in *California v. Carney*, this exception does not apply to the home.²⁴⁰

233. *Id.*

234. *Id.* at 371–72.

235. *See* *United States v. Place*, 462 U.S. 696, 707 (1983) (concluding that a "[dog] sniff discloses only the presence or absence of narcotics, a contraband item").

236. *See* *Illinois v. Caballes*, 543 U.S. 405, 409 (2005) (stating that a positive dog alert was sufficient to establish probable cause to conduct a search of a vehicle).

237. *See* *United States v. Ross*, 456 U.S. 798, 823 (1982) (explaining that the vehicle exception provides for warrantless search without prior approval of a magistrate).

238. *California v. Carney*, 471 U.S. 386, 393 (1985).

239. *See id.* at 393 n.2 ("With few exceptions, the courts have not hesitated to apply the vehicle exception to vehicles other than automobiles."); *United States v. Tartaglia*, 864 F.2d 837, 841 (D.C. Cir. 1989) (finding that the vehicle exception applied to a roomette on a train); *United States v. Rollins*, 699 F.2d 530, 534 (11th Cir. 1983) (finding that a search of an airplane fell within the automobile exception).

240. *Carney*, 471 U.S. at 392–93 (distinguishing searches of motor vehicles from those of the home).

The home is different and requires a close look at what information a detector dog can provide. A well-trained narcotic detector dog alerts to the odor of a controlled substance.²⁴¹ The dog's alert provides information that aids the evaluation of whether illegal narcotics are present but does not alone conclusively establish the presence of those narcotics.²⁴² The very factors that cause the reliability of the dog to be misinterpreted become significant for a very different reason when we consider the home.

A home is not readily movable. This distinction is demonstrated by the fact that a dog alert to a vehicle allows an immediate warrantless search, but the same alert to a house would require the drafting of a search warrant and approval of a magistrate.²⁴³ A dog alert to residual odor may be acceptable in the context of a vehicle, where the intrusion is unlikely to uncover a wealth of personal information.²⁴⁴ The home presents a more perplexing problem.²⁴⁵ A search of one's home exposes the most intimate details of that person's life to law enforcement.²⁴⁶

C. *The Initial Dog Sniff*

In *Rabb III*, the Florida Court of Appeals found that a dog sniff was similar to the use of a thermal imager and determined that such a sniff was a search.²⁴⁷ The court based this finding on the fact that a dog sniff can discern information about the interior of the residence.²⁴⁸ The court stressed the heightened protection afforded the home and the fact that even non-intimate details are protected.²⁴⁹ The court cited a passage from Justice Scalia's majority opinion in *Kyllo*, which stated that if an officer were to see a non-intimate rug through an open door of a

241. Interview with R. C. Smith, *supra* note 84.

242. *See id.* (discussing reasons an alert may not lead to the recovery of narcotics).

243. *See Carney*, 471 U.S. at 393 (stating that the vehicle exception justifies an immediate search).

244. *See Cardwell v. Lewis*, 417 U.S. 583, 590 (1974) ("One has a lesser expectation of privacy in a motor vehicle because its function is transportation and it seldom serves as one's residence or as the repository of personal effects.").

245. *See City of Indianapolis v. Edmond*, 531 U.S. 32, 55 (2000) (Rehnquist, C.J., dissenting) ("The brief seizure of an automobile can hardly be compared to the intrusive search of the body or the home.").

246. *See Kyllo v. United States*, 533 U.S. 27, 37 (2001) ("In the home, our cases show, all details are intimate details, because the entire area is held safe from prying government eyes.").

247. *See State v. Rabb (Rabb III)*, 920 So. 2d 1175, 1182 (Fla. Dist. Ct. App. 2006) (stating that *Kyllo*, not *Caballes*, controlled the outcome of the case).

248. *Id.* at 1184.

249. *Id.* at 1182–83 (citing *Kyllo*, 533 U.S. at 37).

residence there would be no exception to the warrant requirement.²⁵⁰ However, this reasoning ignores the fact that if that same officer were to see a bale of marijuana through that same open door, it would create sufficient probable cause for a search.²⁵¹

A dog sniff is similar to an officer's observation of contraband through an open door. The dog does not physically invade the interior of the residence—it smells only odors that are emanating from the residence.²⁵² If the dog is legally in the position to access such odors, the dog alert is parallel to an officer seeing contraband inside the home while legally in a position to do so. The dog is detecting an odor that has escaped the house. It seems that this odor is then readily accessible to other members of society, and there is no longer a reasonable expectation of privacy with regard to the odor.

In *California v. Greenwood*, the Supreme Court upheld the search of garbage placed on the curb in opaque bags based on this same reasoning.²⁵³ However, the odor escaping a house is involuntarily exposed rather than consciously jettisoned like garbage. Further, the Court's 5–4 decision in *Greenwood* might well have been different had the garbage bag been placed just outside the front door of the residence and not curbside, as the Court stressed that the garbage had been placed “in an area particularly suited for public inspection.”²⁵⁴

The Supreme Court recognized that a dog sniff was distinguishable from the facts in *Kyllo* because the dog sniff, unlike the use of the thermal imager, was not capable of detecting lawful activity.²⁵⁵ Given the lack of evidence showing that dogs detect odors other than contraband, it seems reasonable to allow a dog sniff of any accessible area of a residence. This is further supported by the general lack of any factual support for theories suggesting that narcotic detector

250. *Id.* at 1183 (citing *Kyllo*, 533 U.S. at 37) (stressing that the Fourth Amendment's protection is not related to the quality or quantity of the information obtained).

251. *See Michigan v. Clifford*, 464 U.S. 287, 294 (1984) (stating that contraband in plain view “may be seized” and “may be used to establish probable cause to obtain a criminal search warrant”).

252. *See* Interview with Richard M. Corrales, *supra* note 89 (discussing the difficulties involved in a dog sniff of the exterior of a house).

253. *California v. Greenwood*, 486 U.S. 35, 39–41 (1988). The Court held that a law enforcement search of garbage was not a Fourth Amendment violation, as there was no expectation of privacy that society accepted as objectively reasonable. *Id.*

254. *Id.* at 40–41.

255. *See Illinois v. Caballes*, 543 U.S. 405, 409 (2005) (concluding that the holding in *Caballes* was consistent with *Kyllo*).

dogs are not as reliable as they might seem.²⁵⁶ These theories either rely on after the fact criticism of dog searches or statistical calculations using questionable variables.²⁵⁷ The simple fact is that dogs continue to do their job—finding the odor of narcotics that leads to the arrest of drug dealers.²⁵⁸ One law review article cites a situation in which an unknown trial judge responded to a motion to suppress evidence located by a dog by saying, “I’m a practical man. The dog is accurate—the proof is right there.”²⁵⁹ When one considers the two sides of the debate, one thing is evident: there are literally millions of dollars of seized narcotics to point to in support of the dog’s reliability.²⁶⁰ Those questioning the dogs have a number of interesting, well thought out theories, and even a few cases of possibly illegitimate or bad searches for support, but little else.

Despite the aforementioned facts supporting the reliability of narcotic detector dogs, the prospect of a detector dog sniffing a home randomly or based on nothing more than a hunch creates a concern that is simply not present in the context of vehicles or other objects. While a random sniff of a vehicle might offend some, it requires no intrusion on the property of another in most cases. It also does not carry the possibility that the most private and sacred space an individual can possess might be invaded. Unlike a search of a vehicle or other similar object, a search of one’s home exposes intimate details.²⁶¹

Further, an alert to the exterior of a home could be based on the dog’s detection of an odor that is around or near a home but not emanating from the home.²⁶² This risk is not great, but the

256. See generally Bird, *supra* note 106, at 427–29 (using Bayes’ Theorem to illustrate possible flaws in calculating the accuracy of detector dogs); Katz & Golembiewski, *supra* note 6, at 754–65 (suggesting several reasons why drug dogs are not reliable but failing to cite any evidence to support the theories); Myers, *supra* note 13, at 12–15 (using Bayes’ Theorem to suggest that dogs are far less accurate than is claimed but citing no evidence that coincides with the calculations).

257. See generally Katz & Golembiewski, *supra* note 6, at 754–65 (characterizing one dog search as unreliable because the dog was also trained to find valium); Myers, *supra* note 13, at 12–15 (using Bayes’ Theorem to suggest that dogs are far less accurate than their observed accuracy suggests).

258. See HOUSTON POLICE DEP’T, CANINE HANDLER ACTIVITY REPORT FOR HANDLER R. CORRALES FOR PERIOD JAN. 1, 2008 TO DEC. 8, 2008 (2008) (showing a total of 248 searches yielding the recovery of narcotics and numerous arrests for the year to date).

259. Myers, *supra* note 13, at 32 (quoting a trial judge observed by the article’s author).

260. See GRUFFY ACTIVITY REPORT, *supra* note 202 (showing total seizures for Gruffy of over \$40,681,687 in illegal narcotics and more than \$6,749,844 in U.S. currency).

261. See *Kyllo v. United States*, 533 U.S. 27, 37 (2001) (stating that all details in the home are intimate details).

262. This would include odor carried downwind from another residence, residual odor

possibility exists. Furthermore, while this risk is acceptable in other contexts, it is objectionable given the heightened Fourth Amendment protection afforded the home.

A dog alert is an extremely useful tool in the battle to control the flow of illegal narcotics in the United States, but it is just a tool. Some containers, like a paint can, can be opened by merely popping off the lid with a screwdriver. Other, more complicated containers, like commercial shipping crates, require multiple tools before they can be opened. This is the situation with dog alerts and the home. The home is the most complicated of containers, and there should be several tools required in order for it to be opened. While a dog alert might mean that there are narcotics inside the residence, the sanctity of the home should require more than just that alert.²⁶³ In fact, the Houston Police Department Narcotics Division policy does not allow a search based solely on a dog alert.²⁶⁴ Lieutenant Gray Smith of the Houston Police Department Narcotics Division explained, “HPD still believes in the sanctity of the home. Before we invade the home of a citizen and risk the lives of our officers, we want to conduct a thorough investigation that entails more than just the dog alert.”²⁶⁵ Justice Souter recognized that dogs are not “infallible” creatures, and even law enforcement agrees.²⁶⁶

V. CONCLUSION

The current state of the law as it relates to dog sniffs of the home is uncertain. The Supreme Court has yet to rule on any case directly on point, but rather passed on just such an opportunity.²⁶⁷ While the implication of the Court’s action, or inaction, suggests that dog sniffs of homes are no different than those of vehicles and other objects, clearer guidance is needed.

resulting from contact with certain parts of the home by someone who had recently been in contact with narcotics, or other similar scenarios.

263. Interview with Gray Smith, *supra* note 118.

264. *Id.*

265. *Id.*

266. See *Illinois v. Caballes*, 543 U.S. 405, 411 (2005) (Souter, J., dissenting) (“The infallible dog, however, is a creature of legal fiction.”); see also Interview with Richard M. Corrales, *supra* note 89 (“The dogs aren’t perfect, but they are very, very good.”); Interview with Gray Smith, *supra* note 118 (“We all want the dogs to be perfect, but they aren’t.”); Interview with R. C. Smith, *supra* note 84 (“There are good dogs and bad dogs. Good handlers and bad handlers. It comes back to training.”); Interview with Tony Viator, *supra* note 91 (“Dogs can and will make errors.”).

267. See *Florida v. Rabb (Rabb I)*, 544 U.S. 1028 (2005) (vacating and remanding for consideration in light of *Caballes* without further discussion).

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GOING TO THE DOGS

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Courts in the United States have long assumed that narcotic detector dogs are reliable. A closer look at the nature of what a detector dog is trained to do and the factors that influence its performance is surely warranted. There are numerous factors that might affect the dog's reliability. The use of statistics alone can be misleading, as calculations about the dog's reliability can be based on an erroneous understanding of the dog's role. Additionally, the variety of unknown and extraneous factors that might affect the dog's performance in the field makes deployment and training records of limited utility at best. The true picture of a dog's reliability cannot be complete unless deployment records, training records, and the nature and context of the dog's utilizations can be evaluated.

Additionally, the certification of narcotic detector dogs should be standardized and minimum training guidelines should be established. This would allow training and certification records to be more consistently indicative of the dog's performance.

In light of the many factors discussed herein, a clear and definitive standard for the use of narcotic detection dogs to sniff the exterior of houses is needed. This would allow lower courts, law enforcement, and defendants to better understand the contours of the law and evaluate the propriety of individual cases.

Furthermore, given the heightened protection afforded the home under the Fourth Amendment, reasonable suspicion of narcotics activity or involvement should be shown prior to conducting a dog sniff of a home. While homes and vehicles are afforded different levels of protection under the Fourth Amendment, it is clear that there is no Fourth Amendment issue if a dog sniff is not considered a search. But the very nature of the privacy interest at stake supports the furtherance of a policy requiring reasonable suspicion prior to conducting a dog sniff of a residence.²⁶⁸ This policy would respect the Fourth Amendment's broader and more rigid protection of the home. Further, it would represent only a minor inconvenience for law enforcement, as officers generally have reasonable suspicion prior to conducting dog sniffs. Such a policy would require better and more complete documentation on the part of law enforcement—a goal that benefits both law enforcement and the public at large.

268. Given the Court's view that dog sniffs are not searches, any policy would have to result not from constitutional rulings but from public policy choices by states and law enforcement agencies.

Finally, the Supreme Court should find that a dog alert to the exterior of a home, standing alone, is insufficient for the issuance of a search warrant. Again, this higher standard, as opposed to the standards for vehicles and other objects, would both account for the greater Fourth Amendment protection of the home as well as force law enforcement to conduct more rigorous investigations and to better document their results. This too would likely be only a minor change for most law enforcement agencies. The change in the standard for the initial sniff would dovetail with the change in establishing probable cause. The home is sacred, and its protection should be addressed specifically—not merely by reference to prior cases involving the lesser Fourth Amendment protection afforded vehicles and luggage.

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