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Privacy Revisited: GPS Tracking as Search and Seizure

Bennett L. Gershman*

The seminal decision in *Katz v. United States*¹ changed the way we look at the Fourth Amendment. Prior to *Katz*, a Fourth Amendment search typically required an intrusion by government into a “protected area.”² But as *Katz* famously declared, “the Fourth Amendment protects people, not places.”³ Nevertheless, the “place” where the privacy is sought—in *Katz*, a telephone booth—remains a critical reference in determining the constitutional protection that people are afforded. That *Katz* may have relied on the privacy of the telephone booth to place his call, according to the majority, was constitutionally significant, but it proved to be an uncertain gauge of protected privacy from governmental intrusions into other places. The concurring opinion by Justice John Harlan more explicitly addressed the extent to which a person’s reliance on the privacy of the “place” affords constitutional protection: “first . . . a person [must] have exhibited an actual (subjective) expectation of privacy and, second . . . the expectation [must] be one that society is prepared to recognize as ‘reasonable.’”⁴

Post-*Katz* Supreme Court decisions—and there are many—have tried to clarify the second part of Justice Harlan’s formulation: the reasonableness of a subjective expectation of privacy.⁵ Expectations of privacy that the Supreme Court has

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1. 389 U.S. 347 (1967).

2. *Id.* at 351 n.9 (“It is true that this Court has occasionally described its conclusions in terms of ‘constitutionally protected areas,’ but we have never suggested that this concept can serve as a talismanic solution to every Fourth Amendment problem.”) (internal citations omitted).

3. *Id.* at 351. The Court explicitly overruled *Olmstead v. United States*, 277 U.S. 438 (1928), which had held that electronic surveillance, without any trespass to property and without any seizure of tangible objects, fell outside the purview of the Fourth Amendment. *Id.* at 352-53.

4. *Id.* at 361 (Harlan, J., concurring).

5. The Court has often used the terms “reasonable,” “justifiable,” and “legitimate” interchangeably to characterize the objective part of the *Katz*

considered to be reasonable include conversations believed by all of the parties to be confidential,⁶ non-commercial activities in the home,⁷ external manipulation of luggage,⁸ the interior of the home from tracking by a beeper,⁹ and the interior of the home from heat-revealing technology.¹⁰ By contrast, expectations of privacy that the Supreme Court has considered to be unreasonable include garbage placed on the curb for collection,¹¹ open fields with “no trespassing” signs,¹² out-of-door activities within one’s home¹³ and the workplace,¹⁴ the routes traveled by an automobile,¹⁵ telephone numbers dialed,¹⁶ conversations with a false friend,¹⁷ commercial activities in the home,¹⁸ drugs that are accessible to a canine’s scent,¹⁹ and drugs that can be identified by scientific tests.²⁰

As the above examples suggest, the Supreme Court’s attempt to distinguish between expectations of privacy that are reasonable and those that are not reasonable has been at best uncertain, and subject to criticism.²¹ Much of the uncertainty

test. *See, e.g.*, *Oliver v. United States*, 466 U.S. 170, 177-78 (1984) (“legitimate” and “reasonable”); *United States v. White*, 401 U.S. 745, 749, 752 (1971) (“justifiable”); *Katz*, 389 U.S. at 353, 361 (“justifiable” and “reasonable”).

6. *Berger v. New York*, 388 U.S. 41 (1967).
7. *Minnesota v. Olson*, 495 U.S. 91 (1990).
8. *Bond v. United States*, 529 U.S. 334 (2000).
9. *United States v. Karo*, 468 U.S. 705 (1984).
10. *Kyllo v. United States*, 533 U.S. 27 (2001).
11. *California v. Greenwood*, 486 U.S. 35 (1988).
12. *Oliver v. United States*, 466 U.S. 170 (1984).
13. *Florida v. Riley*, 488 U.S. 445 (1989); *California v. Ciraolo*, 476 U.S. 207 (1986).
14. *Dow Chem. Co. v. United States*, 476 U.S. 227 (1986).
15. *United States v. Knotts*, 460 U.S. 276 (1983).
16. *Smith v. Maryland*, 442 U.S. 735 (1979).
17. *United States v. White*, 401 U.S. 745 (1971).
18. *Minnesota v. Carter*, 525 U.S. 83 (1998); *Lewis v. United States*, 385 U.S. 206 (1966).
19. *Illinois v. Caballes*, 543 U.S. 405 (2005); *United States v. Place*, 462 U.S. 696 (1983).
20. *United States v. Jacobsen*, 466 U.S. 109 (1984).
21. *See, e.g.*, Donald L. Doernberg, “Can You Hear Me Now?": *Expectations of Privacy, False Friends, and the Perils of Speaking Under the Supreme Court's Fourth Amendment Jurisprudence*, 39 IND. L. REV. 253, 295 (2006) (criticizing the Supreme Court’s “muddled view of privacy”); Peter P. Swire, *Katz is Dead. Long Live Katz*, 102 MICH. L. REV. 904, 923-31 (2004)

and criticism is attributable to several factors: the nature and extent of the methods used by government to intrude into private places; the varying nature and extent of privacy interests over a broad range of places and activities; and most importantly, the role that modern technology plays in enabling the government to intrude into places and activities that previously were inaccessible.²² Indeed, the threat to individual privacy from the “fantastic advances in the field of electronic communication” that Chief Justice Warren warned about nearly fifty years ago²³ seems almost benign compared to advances in satellite and radar surveillance technology that allow the government to secretly spy, track, and record private conduct on an unprecedented scale.²⁴

Given this uncertainty, it should not be surprising that the Supreme Court’s *Katz* expectation-of-privacy jurisprudence has encouraged state courts to reject what is considered a confusing and restrictive interpretation of privacy under the Fourth Amendment, and to provide broader protection to their citizens under their own state constitutions.²⁵ Among the most prominent advocates of aggressively using state constitutions to expand individual rights has been the New York State Court of Appeals.²⁶ Thus, in examining the Supreme Court’s *Katz*-

(discussing the inadequacy of the “reasonable expectation of privacy” test).

22. See *Kyllo v. United States*, 533 U.S. 27, 33-34 (2001) (“It would be foolish to contend that the degree of privacy secured to citizens by the Fourth Amendment has been entirely unaffected by the advance of technology.”).

23. See *Lopez v. United States*, 373 U.S. 427, 441 (1963) (Warren, C.J., concurring in the result).

24. See, e.g., *Kyllo*, 533 U.S. at 36 n.3 (describing radar-based ability to enable law enforcement to see individuals through walls); Renée McDonald Hutchins, *Tied Up in Knots? GPS Technology and the Fourth Amendment*, 55 UCLA L. REV. 409, 414-21 (2007) (providing extensive discussion of origin, science, and uses of GPS technology); Ian James Samuel, Note, *Warrantless Location Tracking*, 83 N.Y.U. L. REV. 1324, 1327 (2008) (discussing the technological capacity of GPA to track down persons who use cell phones to within a range of a few meters anywhere on the globe).

25. See generally Shirley S. Abrahamson, *Criminal Law and State Constitutions: The Emergence of State Constitutional Law*, 63 TEX. L. REV. 1141 (1985); William J. Brennan, Jr., *State Constitutions and the Protection of Individual Rights*, 90 HARV. L. REV. 489 (1977).

26. See Judith S. Kaye, *State Courts at the Dawn of a New Century: Common Law Courts Reading Statutes and Constitutions*, 70 N.Y.U. L. REV. 1 (1995).

expectation-of-privacy decisions,²⁷ as well as other search and seizure decisions,²⁸ the New York Court of Appeals has concluded that the Supreme Court's interpretation of the Fourth Amendment offers insufficient protection for New York citizens, and has invoked the State Constitution's search and seizure provision of Article I, Section 12 to afford greater protection.²⁹

Last term, the New York State Court of Appeals once

27. See, e.g., *People v. Keta*, 593 N.E.2d 1328 (N.Y. 1992) (search of vehicle dismantling business); *People v. Scott*, 593 N.E.2d 1328 (N.Y. 1992) (search of open fields); *People v. Dunn*, 564 N.E.2d 1054 (N.Y. 1990) (canine sniff); *People v. Torres*, 543 N.E.2d 61 (N.Y. 1989) (search of passenger compartment of vehicle); *People v. P.J. Video, Inc.*, 501 N.E.2d 556 (N.Y. 1986) (probable cause for search warrant authorizing seizure of obscene materials); *People v. Gokey*, 457 N.E.2d 723 (N.Y. 1983) (warrantless search of bag in defendant's possession).

28. See, e.g., *People v. Diaz*, 612 N.E.2d 298 (N.Y. 1993) (rejecting the "plain feel" exception to warrant requirement); *People v. Harris*, 570 N.E.2d 1051 (N.Y. 1991) (statements were fruit of unlawful entry); *People v. Vilardi*, 555 N.E.2d 915 (N.Y. 1990) (standard for non-disclosure of exculpatory evidence); *People v. Griminger*, 524 N.E.2d 409 (N.Y. 1988) (rejecting the totality of circumstances test for reliability of informant statements); *People v. Millan*, 508 N.E.2d 903 (N.Y. 1987) (allowing standing for constructive possession); *People v. Stith*, 506 N.E.2d 911 (N.Y. 1987) (restricting the inevitable discovery rule); *People v. Class*, 494 N.E.2d 444 (N.Y. 1986) (search of vehicle for VIN number); *People v. Bigelow*, 488 N.E.2d 451 (N.Y. 1985) (rejecting the good faith exception to exclusionary rule); *People v. Johnson*, 488 N.E.2d 439 (N.Y. 1985) (reliability of informant's statements); *People v. Belton*, 432 N.E.2d 745 (N.Y. 1982) (automobile search incident to arrest).

29. N.Y. CONST., art. I, § 12 provides:

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

The right of the people to be secure against unreasonable interception of telephone and telegraph communications shall not be violated, and ex parte orders or warrants shall issue only upon oath or affirmation that there is reasonable ground to believe that evidence of crime may be thus obtained, and identifying the particular means of communication, and particularly describing the person or persons whose communications are to be intercepted and the purpose thereof.

Id.

again invoked the State Constitution in a search and seizure case that examined a massive and prolonged use by law enforcement agents of Global Positioning System (“GPS”) surveillance technology to monitor a motorist’s travels. In *People v. Weaver*, the Court of Appeals held that the surreptitious attachment by law enforcement agents of a GPS tracking device to the underside of the defendant’s vehicle and the continuous monitoring of his movements for sixty-five consecutive days constituted a “search” under the New York State Constitution that required a warrant.³⁰ The Court of Appeals split 4-3 in this decision. The majority and dissenting opinions gave carefully reasoned arguments on the difficult, and indeed “momentous,”³¹ privacy issue presented—the impact of sophisticated and highly intrusive surveillance technology on society’s subjective and objectively reasonable expectations of so-called “locational privacy,”³² and the ability of law enforcement to employ powerful new technology to investigate crime without being subjected to constitutional constraints.

Part I of this Article discusses the facts in *People v. Weaver*, the majority and dissenting opinions in the Appellate Division, Third Department decision, and the majority and dissenting opinions in the Court of Appeals decision. Part II addresses the question that has yet to be decided by the U.S. Supreme Court—whether GPS tracking of a vehicle by law enforcement constitutes a search under the Fourth Amendment. Part III addresses the separate question that the Court of Appeals did not address in *Weaver*—whether the surreptitious attachment of a GPS device to a vehicle constitutes a *seizure* under the Fourth Amendment. The Article concludes that law enforcement’s use of a GPS device to track the movements of a vehicle continuously for an extended

30. *People v. Weaver*, 909 N.E.2d 1195 (N.Y. 2009).

31. See *United States v. Garcia*, 474 F.3d 994, 998 (7th Cir. 2007).

32. See Adam Cohen, *A Casualty of the Technology Revolution: “Locational Privacy”*, N.Y. TIMES, Sept. 1, 2009, at A28. See also Dorothy J. Glancy, *Privacy on the Open Road*, 30 OHIO N.U. L. REV. 295 (2004); McDonald Hutchins, *supra* note 24; April A. Otterberg, Note, *GPS Tracking Technology: The Case for Revisiting Knotts and Shifting the Supreme Court’s Theory of the Public Space Under the Fourth Amendment*, 46 B.C. L. REV. 661 (2005); Samuel, *supra* note 24.

period of time is a serious intrusion into a motorist's reasonable expectation of privacy that constitutes a search under the Fourth Amendment. Moreover, although the issue is somewhat murkier, the attachment of the GPS device to a vehicle may also constitute a seizure under the Fourth Amendment.

I. People v. Weaver

A. *Factual Setting*

On December 21, 2005, between 1:00 a.m. and 3:00 a.m., Investigator Peter Minehan, assigned to the "electronic and physical surveillance" unit of the New York State Police, crawled under a Dodge van belonging to Scott Weaver that was parked on the street outside Weaver's home, and attached a magnetized, battery-operated GPS tracking device to the metal frame of the van's bumper.³³ The tracking device remained in place for sixty-five days, continuously monitoring the position and speed of the van and its location.³⁴ This non-stop surveillance was conducted without a warrant.³⁵ Evidence from the GPS device was admitted at trial to establish Weaver's guilt in the burglary of a K-Mart department store.³⁶

The GPS tracking device that was attached to Weaver's van is known as "Q-ball," and is one of many GPS brands that operate from several of the current twenty-nine GPS satellites in orbit.³⁷ The Q-ball receiver is able to calculate a vehicle's latitude, longitude, and altitude by listening to and processing location information.³⁸ The device tracks, records, and reports every movement and every location of the vehicle, and gives readings every minute while the vehicle is in motion or is stationary.³⁹ As Investigator Minehan testified, an investigator

33. *Weaver*, 909 N.E.2d at 1195.

34. *Id.* at 1195-96.

35. *Id.* at 1196.

36. *Id.*

37. *Id.* See McDonald Hutchins, *supra* note 24, at 414-21, for an extensive discussion of the history, science, and functions of GPS technology.

38. *Weaver*, 909 N.E.2d at 1196.

39. *Id.*

using a GPS tracking device could log on to his computer at home while watching a football game and track a vehicle in real time.⁴⁰ To download the location information, the investigator would drive past the vehicle and simply press a button on a corresponding GPS receiver unit, causing the tracking history to be received and saved by a computer in the investigator's vehicle.⁴¹ The Q-ball used to monitor Weaver tracked, recorded, and reported his van's movements and locations every hour of every day over the course of sixty-five days.⁴²

Following an investigation, Weaver and another man, John Chiera, were charged with two separate burglaries—one committed in July 2005, at the Latham Meat Market, and the other at the Latham K-Mart on Christmas Eve of the same year.⁴³ Weaver and Chiera were tried separately.⁴⁴ Evidence from the GPS tracking device was admitted at Weaver's trial and showed that on December 24, 2005, at 7:26 p.m., Weaver's van drove through the K-mart parking lot at a speed of six miles per hour and left the parking lot two minutes later.⁴⁵ This proof was introduced by the prosecution to corroborate the testimony of Amber Roche, who had stated that on the date of the K-Mart burglary, she had driven through the K-Mart parking lot with Weaver and John Chiera while the two men looked for the best place to break into the store.⁴⁶ Roche testified that later that night, Weaver and Chiera left Roche's apartment wearing dark clothing, and that when they returned, Chiera's hand was bleeding.⁴⁷ Other evidence showed that during the burglary, a glass jewelry case was smashed and stained with blood that contained DNA matching

40. Brief for Defendant-Appellant at 4 n.1, *People v. Weaver*, 909 N.E.2d 1195 (N.Y. 2009) (No. 2009-0053), 2008 WL 6002281.

41. *Weaver*, 909 N.E.2d at 1196.

42. *Id.* at 1195-96. The Court of Appeals noted that the record is unclear as to why Weaver was placed under electronic surveillance. *Id.* at 1196.

43. *Id.*

44. Brief for Defendant-Appellant, *supra* note 40, at 6. Chiera and the prosecution initially agreed to a plea bargain. However, the county court judge refused to accept the plea because Chiera would not agree to testify against Weaver. *Id.* at 8.

45. *Weaver*, 909 N.E.2d at 1196.

46. *Id.*

47. *Id.*

Chiera's.⁴⁸

A witness for K-Mart testified for the prosecution that the store closed on Christmas Eve at 9:00 p.m. and that after being alerted later that night by store managers, he returned to the store to find police and canine units going through the store.⁴⁹ Burglars apparently had cut through a metal fence leading to the garden shop, broke open the garden shop door, entered the store, broke open four jewelry cases, and left their blood on the glass.⁵⁰ A garbage bag full of jewelry and bolt cutters was discovered on the floor.⁵¹ During summation, the prosecution reminded the jury that the GPS data showed "where Mr. Weaver went on Christmas Eve," driving randomly from place to place without stopping anywhere, unlike what "reasonable people" would do on Christmas Eve.⁵² The prosecutor argued that, from the GPS data, "there is proof beyond a reasonable doubt that this defendant, Scott Weaver, was waiting outside, making John Scott Chiera go in and leave his blood at the scene of the K-Mart."⁵³ The jury found Weaver guilty of Burglary in the Third Degree and Attempted Grand Larceny in the Second Degree, and the court sentenced him to concurrent terms of two and one-third to seven years on each of the two convictions.⁵⁴

B. *Appellate Division*

On appeal to the Appellate Division, Third Department, Weaver argued, among other claims, that the warrantless attachment of the GPS device to his van violated his rights under the Fourth Amendment to the U.S. Constitution, as well as his rights under Article I, Section 12 of the New York State Constitution.⁵⁵ The court, with one justice dissenting, rejected

48. *Id.*

49. Brief for Defendant-Appellant, *supra* note 40, at 10.

50. *Id.*

51. *Id.*

52. *Id.* at 24.

53. *Id.*

54. *See Weaver*, 909 N.E.2d at 1196; Brief for Defendant-Appellant, *supra* note 40, at 24.

55. *People v. Weaver*, 860 N.Y.S.2d 223, 224 (App. Div. 2008).

the argument. According to the majority opinion by Justice Robert S. Rose, a person has no reasonable expectation of privacy in the publicly accessible exterior of his or her vehicle or in the undercarriage of the vehicle.⁵⁶ Moreover, the court observed, it is unreasonable for a motorist to expect privacy as to the route and movement of his or her vehicle on public streets.⁵⁷ Police, said the court, are allowed to use “science and technology to enhance or augment their ability to surveil that which is already public.”⁵⁸ Constant visual surveillance of Weaver’s van in public view, the court concluded, would have been just as intrusive as using the GPS device to monitor his movements, and no warrant would have been required to do so, under either the U.S. Constitution or the New York State Constitution.⁵⁹

Justice Leslie E. Stein dissented.⁶⁰ She believed that the constant surveillance of Weaver’s van by use of a GPS device “has far-reaching implications and has never been addressed by any appellate court of this state.”⁶¹ A GPS device, Justice Stein observed, enables the government “to acquire an enormous amount of personal information about the citizen.”⁶² Grounding her opinion in the protections of the New York State Constitution rather than the U.S. Constitution, Justice Stein argued that while a person may not enjoy a reasonable expectation of privacy in a public place from police surveillance at any given moment, “they do have a reasonable expectation that their every move will not be continuously and indefinitely monitored by a technical device without their knowledge, except where a warrant has been issued based on probable

56. *Id.* at 225.

57. *Id.*

58. *Id.*

59. *Id.*

60. *Id.* at 227 (Stein, J., dissenting).

61. *Id.* (Stein, J., dissenting). Several lower courts in New York, however, have addressed the issue. *See, e.g.,* *People v. Gant*, 802 N.Y.S.2d 839 (Westchester Co. Ct. 2005) (in absence of exigent circumstances, warrant was required to attach GPS to car); *People v. Lacey*, 787 N.Y.S.2d 680 (Nassau Co. Ct. 2004), *aff’d*, 887 N.Y.S.2d 158 (App. Div. 2009) (use of GPS did not violate Fourth Amendment).

62. *Weaver*, 860 N.Y.S.2d at 228 (Stein, J., dissenting) (quoting *State v. Jackson*, 76 P.3d 217, 224 (Wash. 2003) (en banc)).

cause.”⁶³ Justice Stein granted Weaver leave to appeal to the Court of Appeals.⁶⁴

C. *Court of Appeals: Majority Opinion of Chief Judge Lippman*

The Court of Appeals reversed in a 4-3 decision.⁶⁵ The majority opinion, written by Chief Judge Jonathan Lippman, and joined by Judges Carmen Beauchamp Ciparick, Eugene F. Pigott, Jr., and Theodore T. Jones, viewed the GPS tracking device as “an enormous unsupervised intrusion by the police agencies of government upon personal privacy.”⁶⁶ This intrusion, the majority said, recalled the government’s unsupervised use of wiretapping eighty-one years earlier, which had provoked Justice Louis Brandeis’s famous dissent in *Olmstead v. United States*⁶⁷ where he condemned the government for its lawless behavior and included the memorable language that a person has “the right to be let alone—the most comprehensive of rights and the right most valued by civilized men.”⁶⁸ Describing the GPS device as “this dragnet use of the technology at the sole discretion of law enforcement authorities to pry into the details of people’s daily lives,”⁶⁹ the majority asserted that the government had engaged in lawless behavior and that judicial intervention was required.⁷⁰

The majority began its analysis by focusing on one of the Supreme Court’s post-*Katz* decisions that had examined whether law enforcement’s use of an electronic device to monitor the route of a motorist constituted a search under the

63. *Id.* (Stein, J., dissenting).

64. *See Weaver*, 909 N.E.2d at 1197.

65. *Id.* at 1213.

66. *Id.* at 1202.

67. 277 U.S. 438, 478-79 (1928) (Brandeis, J., dissenting).

68. *Id.* at 478 (Brandeis, J., dissenting).

69. *Weaver*, 909 N.E.2d at 1203.

70. *See id.* at 1201 (stating that the government’s conduct involved a “massive invasion of privacy . . . inconsistent with even the slightest reasonable expectation of privacy”). *See also id.* at 1203 (“Without judicial oversight, the use of these powerful devices presents a significant and, to our minds, unacceptable risk of abuse.”).

Fourth Amendment. In *United States v. Knotts*, law enforcement agents placed a beeper in a five-gallon drum of chloroform and tracked the movement of a vehicle in which the container was transported by using both visual surveillance and by monitoring the signals from the beeper.⁷¹ The Supreme Court held that no Fourth Amendment search occurred: “A person traveling in an automobile on public thoroughfares has no reasonable expectation of privacy in his [or her] movements from one place to another.”⁷² This is so, the Supreme Court explained, because any member of the public “who wanted to look” could observe the route taken by the vehicle, the stops it made, and its ultimate destination, and therefore any claim to privacy that the motorist may have subjectively expected would be unreasonable.⁷³ Indeed, the Supreme Court observed, “[n]othing in the Fourth Amendment prohibited the police from augmenting the sensory faculties bestowed upon them at birth with such enhancement as science and technology afforded them in this case.”⁷⁴

The majority in *Weaver* conceded that *Knotts* appeared to be a formidable precedent that would seem to allow police investigators to use virtually any type of surveillance technology to track the progress of a vehicle on public roads.⁷⁵ However, as the majority pointed out, there are significant differences between the “very primitive tracking device” in *Knotts*, and the “vastly different and exponentially more sophisticated and powerful technology” of a GPS device.⁷⁶ The beeper in *Knotts*, the majority noted, was used for a limited and discrete purpose—to learn the destination of a particular

71. *United States v. Knotts*, 460 U.S. 276, 278 (1983) (pursuing agents followed the car but lost visual contact when the driver made evasive maneuvers and the agents lost the beeper signal; but the agents retrieved the signal with assistance from a monitoring device located in a helicopter).

72. *Id.* at 281.

73. *Id.* at 281-82.

74. *Id.* at 282.

75. *Weaver*, 909 N.E.2d at 1198-99 (“At first blush, it would appear that *Knotts* does not bode well for Mr. Weaver, for in his case, as in *Knotts*, the surveillance technology was utilized for the purpose of tracking the progress of a vehicle over what may be safely supposed to have been predominantly public roads.”).

76. *Id.*

item.⁷⁷ The beeper merely served to enhance the sensory faculties of the police to enable them to follow the vehicle closely and maintain actual visual contact, which the Supreme Court compared to the agent's use of a searchlight, marine glass, or field glass.⁷⁸ According to the *Weaver* majority, the GPS device is quantitatively and qualitatively different. GPS has a "remarkably precise tracking capability,"⁷⁹ and can be cheaply and easily deployed to track a car "with uncanny accuracy to virtually any interior or exterior location, at any time and regardless of atmospheric conditions."⁸⁰ Such "constant" and "relentless" surveillance, according to the majority, is much more intrusive than "a mere enhancement of human sensory capacity."⁸¹ Indeed, such tracking, the majority observed, "facilitates a new technological perception of the world in which the situation of any object may be followed and exhaustively recorded over, in most cases, a practically unlimited period."⁸² For law enforcement to "see" and "capture" such information, the majority added, "would require, at a minimum, millions of additional police officers and cameras on every street lamp."⁸³

The implications to personal privacy of using a GPS device, the majority further argued, are staggering. They offered this stark portrayal: "[t]he whole of a person's progress through the world, into both public and private spatial spheres, can be charted and recorded over lengthy periods."⁸⁴ According to the majority, the police would be able to retrieve data that could instantaneously describe with "breathtaking quality and quantity . . . a highly detailed profile" of where we go, and in effect, who we are.⁸⁵ Illustrative of the kinds of information

77. The government agents had placed a beeper in a five-gallon drum of chloroform and followed the container's movements, both by visual surveillance and with a monitor that received signals from the beeper, as it was transported in a vehicle to Knott's cabin. *Knotts*, 460 U.S. at 278.

78. *Id.* at 283.

79. *Weaver*, 909 N.E.2d at 1199.

80. *Id.*

81. *Id.*

82. *Id.*

83. *Id.*

84. *Id.*

85. *See id.* at 1199-1200.

that this technology potentially could reveal and record, the majority noted, are “trips to the psychiatrist, the plastic surgeon, the abortion clinic, the AIDS treatment center, the strip club, the criminal defense attorney, the by-the-hour motel, the union meeting, the mosque, synagogue or church, the gay bar and on and on.”⁸⁶ The majority suggested that by using this technology, and by drawing easy inferences, the government would be able to assemble patterns of a person’s professional and personal activities and could learn, with remarkable precision, his or her political, religious, amicable, and amorous associations.⁸⁷

In discussing whether *Knotts* should be the controlling doctrine on whether the use of a GPS device involves a constitutional search, the majority observed that the use of GPS “forces the issue.”⁸⁸ Notwithstanding that round-the-clock GPS surveillance may be extremely popular and have many useful applications,⁸⁹ as the majority acknowledged, this widespread use should not be taken as a “massive, undifferentiated concession of personal privacy to agents of the state.”⁹⁰ Where there has been no voluntary utilization of this tracking technology, and when the GPS is surreptitiously installed by the police, there “exists no basis to find an expectation of privacy so diminished as to render constitutional concerns de minimis.”⁹¹ Moreover, the majority observed, the Supreme Court in *Knotts* acknowledged that the Fourth

[I]t will be possible to tell from the technology with ever increasing precision who we are and are not with, when we are and are not with them, and what we do and do not carry on our persons—to mention just a few of the highly feasible empirical configurations.

Id. at 1200.

86. *Id.* at 1199.

87. *Id.*

88. *Id.* at 1200.

89. *But see* *People v. Sullivan*, 53 P.3d 1181 (Colo. App. 2002) (husband convicted of harassment for use of GPS for stalking); John Schwartz, *This Car Can Talk. What It Says May Cause Concern*, N.Y. TIMES, Dec. 29, 2003, at C1 (noting some concerns about the potential for overzealous use of GPS tracking systems in automobiles by law enforcement and others).

90. *Weaver*, 909 N.E.2d at 1200.

91. *Id.*

Amendment issue would be more directly presented if “twenty-four hour surveillance of any citizen of this country [were] possible, without judicial knowledge or supervision.”⁹²

The *Weaver* majority conceded that the expectation of privacy in a car upon a public thoroughfare is diminished.⁹³ Nevertheless, according to the majority, “a ride in a motor vehicle does not so completely deprive its occupants of any reasonable expectation of privacy.”⁹⁴ According to the majority, a motorist operating on public roads retains a “residual privacy expectation” which, “while perhaps small, was at least adequate to support his claim of a violation of his constitutional right to be free of unreasonable searches and seizures.”⁹⁵ This is particularly so, the majority argued, given the “massive invasion of privacy entailed by the prolonged use of the GPS device [which] was inconsistent with even the slightest reasonable expectation of privacy.”⁹⁶

Observing that neither the U.S. Supreme Court nor the vast majority of federal circuit courts had yet addressed the question of whether the use of GPS in criminal investigations constitutes a “search” under the Fourth Amendment,⁹⁷ the majority chose to ground its decision in the New York State Constitution’s Article I, Section 12—the state analogue to the Fourth Amendment—rather than in the Fourth Amendment itself.⁹⁸ The majority noted that it had on numerous occasions interpreted the State Constitution’s search and seizure provision to afford greater protection to New York State citizens than the protections afforded under the Fourth Amendment.⁹⁹ Indeed, according to the majority, invoking the

92. *Id.* (alteration in original) (quoting *United States v. Knotts*, 460 U.S. 276, 283 (1983)).

93. *Id.*

94. *Id.* See *Delaware v. Prouse*, 440 U.S. 648, 662 (1979) (“An individual operating or traveling in an automobile does not lose all reasonable expectation of privacy simply because the automobile and its use are subject to government regulation.”).

95. *Weaver*, 909 N.E.2d at 1201.

96. *Id.*

97. *Id.* at 1202.

98. *Id.* (“In light of the unsettled state of federal law on the issue, we premise our ruling on our State Constitution alone.”).

99. *Id.* The majority cited as “persuasive” the conclusions of two other state courts that held the warrantless use of a tracking device a violation

State Constitution is appropriate in order to prevent “the consequent marginalization of the State Constitution and judiciary in matters crucial to safeguarding the privacy of our citizens.”¹⁰⁰

D. *Dissenting Opinion by Judge Smith*

Judge Robert S. Smith dissented, joined by Judges Victoria A. Graffeo and Susan P. Read. Smith’s dissenting opinion criticized as “illogical” and “doomed to fail” the majority’s attempt to find in the State Constitution a distinction between ordinary means of observation and more efficient high-tech means.¹⁰¹ According to Judge Smith, the defendant assumed the risk that when he traveled in public places in his car he could be followed, photographed, filmed, and recorded on videotape wherever he went, “from the psychiatrist’s office to the gay bar.”¹⁰² “One who travels on the public streets to such destinations,” his dissenting opinion argued, “takes the chance that he or she will be observed.”¹⁰³ Referring to *Knotts*, Smith’s dissent said that the U.S. Supreme Court drew the “obvious” conclusion that “a person’s movements on public thoroughfares are not subject to any reasonable expectation of privacy.”¹⁰⁴

under their state constitutions. *See id.* at 1203 (referring to *State v. Jackson*, 76 P.3d 217, 224 (Wash. 2003) (en banc) (absent a warrant, “citizens of this State have a right to be free from the type of governmental intrusion that occurs when a GPS device is attached to a citizen’s vehicle”); *State v. Campbell*, 759 P.2d 1040, 1049 (Or. 1988) (absent a warrant, government’s use of a radio transmitter to monitor the location of defendant’s car was “nothing short of a staggering limitation upon personal freedom”).

100. *Id.* at 1202. *See* cases cited *supra* notes 27-28 (search and seizure decisions of the New York Court of Appeals invoking the State Constitution).

101. *Weaver*, 909 N.E.2d at 1204 (Smith, J., dissenting).

102. *Id.* (Smith, J., dissenting). The Smith dissent noted that:

It is beyond any question that the police could, without a warrant and without any basis other than a hunch that defendant was up to no good, have assigned an officer, or a team of officers, to follow him everywhere he went, so long as he remained in public places.

Id. (Smith, J., dissenting).

103. *Id.* (Smith, J., dissenting).

104. *Id.* (Smith, J., dissenting).

Judge Smith criticized the majority for imposing a “totally unjustified limitation on law enforcement” by its suggestion that because the GPS “is new, and vastly more efficient than the investigative tools that preceded it,” it is “simply too good to be used without a warrant.”¹⁰⁵ The portable camera and telephone were once considered new and highly efficient, Smith’s dissent noted, but “[t]he proposition that some devices are too modern and sophisticated to be used freely in police investigation[s] is not a defensible rule of constitutional law.”¹⁰⁶ Criminals, Smith argued, will try to employ the most modern and efficient tools available to them, and do not need a warrant to do so.¹⁰⁷ To limit police use of these same tools, Smith said, “is to guarantee that the efficiency of law enforcement will increase more slowly than the efficiency of law breakers.”¹⁰⁸ Citing *Kyllo v. United States*,¹⁰⁹ and *United States v. Karo*,¹¹⁰ which had held that law enforcement’s use of technology to monitor activities inside the home constitutes a Fourth Amendment search, Smith’s dissent suggested that, rather than limiting the technology that investigators may use, the court should limit the “places and things they may observe with it.”¹¹¹

The “hard”¹¹² and “troubling”¹¹³ aspect of this case, according to Smith, was not the use of the GPS device to track the vehicle, but rather the surreptitious attachment of the GPS to the defendant’s car without his consent.¹¹⁴ He viewed the attachment of the device as a trespass that, while not a violation of the defendant’s privacy rights, did violate the defendant’s property rights.¹¹⁵ Although a “fine distinction,”¹¹⁶

105. *Id.* at 1204-05 (Smith, J., dissenting).

106. *Id.* at 1204 (Smith, J., dissenting).

107. *Id.* (Smith, J., dissenting).

108. *Id.* (Smith, J., dissenting).

109. 533 U.S. 27 (2001).

110. 468 U.S. 705 (1984).

111. *Weaver*, 909 N.E.2d at 1204-05 (Smith, J., dissenting).

112. *Id.* at 1205 (Smith, J., dissenting).

113. *Id.* at 1204 (Smith, J., dissenting).

114. *Id.* at 1205 (Smith, J., dissenting) (“I do not care for the idea of a police officer—or anyone else—sneaking under someone’s car in the middle of the night to attach a tracking device.”).

115. *Id.* at 1206 (Smith, J., dissenting).

116. *Id.* (Smith, J., dissenting).

Smith's dissent concluded that the existence of a property interest "does not mean that [the] defendant also had a privacy interest."¹¹⁷ The device was attached to the outside of the car while it was parked on a public street, and according to Smith, "[n]o one who chooses to park in such a location can reasonably think that the outside—even the underside—of the car is in a place of privacy."¹¹⁸ Citing *Bond v. United States*,¹¹⁹ in which the Supreme Court held that an overly intrusive manipulation of the exterior of a person's luggage constituted a Fourth Amendment search, Smith's dissent argued that a search would occur as a result of a trespass when information is acquired that the property owner reasonably expected to keep private.¹²⁰

E. *Dissenting Opinion by Judge Read*

Judge Read wrote a separate dissenting opinion in which Judge Graffeo joined.¹²¹ Although she found aspects of this case to be "troubling," particularly the length of time that the GPS device was affixed to the defendant's car,¹²² Judge Read found more troubling the manner in which the majority "brushed aside" the state's constitutional jurisprudence, as well as its "handcuffing" of the state legislature by constitutionalizing a subject that should more properly be dealt with legislatively rather than judicially.¹²³ According to Read's dissent, by "transmut[ing] GPS-assisted monitoring for

117. *Id.* (Smith, J., dissenting) (emphasis and internal citations omitted). *See also id.* (Smith, J., dissenting) ("No authority, so far as I know, holds that a trespass on private property, without more, is an unlawful search when the property is in a public place.").

118. *Id.* (Smith, J., dissenting).

119. 529 U.S. 334 (2000) (search of bus passenger's luggage).

120. *Weaver*, 909 N.E.2d at 1206 (Smith, J., dissenting).

121. *See id.* at 1206 (Read, J., dissenting).

122. *Id.* (Read, J., dissenting). Judge Read claimed that the U.S. Supreme Court exempted from the definition of a search under the Fourth Amendment the government's use of tracking devices "in lieu of or supplemental to visual surveillance, so long as the tracking occurs outside the home." *Id.* at 1206-07 (Read, J., dissenting). However, it is unclear whether and to what extent the Supreme Court has actually considered "substitutes" to a law enforcement agent's visual tracking.

123. *Id.* (Read, J., dissenting).

information that could have been easily gotten by traditional physical surveillance into a constitutionally prohibited search,” the majority impairs the Court’s “institutional integrity” and “denies New Yorkers the full benefit of the carefully wrought balance between privacy and security interests that other states have struck for their citizens through legislation.”¹²⁴

Judge Read also discussed the dual methodology that has been employed by the Court of Appeals when deciding whether to apply the State Constitution rather than federal constitutional law—an interpretive analysis and a non-interpretive analysis. An interpretive analysis is commonly used, according to Judge Read, when there are textual differences between a provision of the State Constitution and its federal counterpart; but this is not a basis, in this case, since the language of the Fourth Amendment and the State Constitution’s Article I, Section 12 is the same.¹²⁵ Non-interpretive review, according to Read’s dissent, “proceeds from a judicial perception of sound policy, justice and fundamental fairness.”¹²⁶ To the extent that the majority based its decision on a non-interpretive methodology, Read claimed, the majority’s analysis “has not come close to justifying its holding as a matter of state constitutional law.”¹²⁷ Indeed, according to Read’s dissent, the majority’s reliance on the State Constitution is “standardless,”¹²⁸ and renders the State Constitution “a handy grab bag filled with a bevy of clauses [to] be exploited in order to circumvent disfavored United States Supreme Court decisions.”¹²⁹

Read’s dissent sought to justify the non-interpretive basis for several search and seizure decisions in which the Court of Appeals departed from the federal approach—cases dealing with the protection of homes,¹³⁰ private land,¹³¹ and the

124. *Id.* at 1212 (Read, J., dissenting).

125. *Id.* at 1207-08 (Read, J., dissenting).

126. *Id.* at 1208 (Read, J., dissenting) (quoting *People v. P.J. Video, Inc.*, 501 N.E.2d 556, 560 (N.Y. 1986)).

127. *Id.* (Read, J., dissenting).

128. *Id.* at 1210 (Read, J., dissenting).

129. *Id.* at 1211 (Read, J., dissenting) (alteration in original and citation omitted).

130. *Id.* at 1208 (Read, J., dissenting) (citing *People v. Harris*, 570 N.E.2d 1051 (N.Y. 1991); *People v. Dunn*, 564 N.E.2d 1054 (N.Y. 1990)).

interior of an automobile¹³²—and argued that “there is no discussion [by the majority in *Weaver*] of how the reasoning in those cases . . . supports deviation from federal precedent in this case.”¹³³ Nor, according to the Read dissent, is the majority’s reliance on decisions from other state courts interpreting their own state constitutions relevant to a non-interpretive analysis, which is explicitly linked to factors peculiar to the State of New York.¹³⁴ Moreover, Read added, the majority failed to examine relevant New York statutory law that regulates police surveillance and that appears to contradict the majority’s imposition of a warrant requirement for GPS tracking.¹³⁵

Finally, the Read dissent criticized the majority for curtailing the state legislature’s “liberty to act in the best interests of the state’s citizens as a whole.”¹³⁶ Noting the popularity and pervasive use of GPS by private citizens and police, Read noted that many states have enacted comprehensive legislation governing the use of GPS by police for investigative purposes, as well as the procedures required to use this technology.¹³⁷ These statutes, Read said, typically require a judicial warrant based on differing levels of factual cause.¹³⁸ To the extent that police surveillance implicates competing values of privacy and security, Read’s dissent argued, it would be most appropriate for the state legislature to balance these values and fashion a comprehensive regulatory program similar to the statutes in other states, which could be readily capable of amendment as the technology evolves.¹³⁹ However, as Read argued, by constitutionalizing the GPS

131. *Id.* (Read, J., dissenting) (citing *People v. Scott*, 593 N.E.2d 1328 (N.Y. 1992)).

132. *Id.* (Read, J., dissenting) (citing *People v. Torres*, 543 N.E.2d 61 (N.Y. 1989)).

133. *Id.* (Read, J., dissenting) (emphasis omitted).

134. *Id.* at 1209 (Read, J., dissenting).

135. *Id.* at 1210 (Read, J., dissenting) (New York state legislature “has enacted elaborate statutory provisions to regulate police surveillance; in particular, CPL articles 700 (eavesdropping and video surveillance warrants) and 705 (pen registers and trap and trace devices)”).

136. *Id.* at 1212 (Read, J., dissenting).

137. *Id.* at 1211 (Read, J., dissenting).

138. *Id.* (Read, J., dissenting).

139. *Id.* at 1211-12 (Read, J., dissenting).

monitoring technology, the majority has defined what the legislature cannot do and has taken other regulatory approaches “off the table.”¹⁴⁰ And to the extent that different judges will impose different temporal and other procedural restrictions on the GPS warrant, she claimed, uniformity will be compromised, and the utility of this investigative technique will be significantly diminished.¹⁴¹

II. GPS Tracking as a Search

The decision by the New York Court of Appeals in *Weaver*, that law enforcement’s use of a GPS device to track a vehicle is a search under the State Constitution that requires a warrant for its use, has settled the issue as a matter of New York State constitutional law. As a matter of federal constitutional law, however, the issue has not been settled. Although the majority opinion in the Appellate Division and the three dissenting judges in the Court of Appeals contended that GPS tracking is not a search under the federal constitution, the U.S. Supreme Court has not considered whether such surveillance is a search under the Fourth Amendment and only a handful of federal appeals courts have examined the question.¹⁴² Nevertheless, an examination of the Supreme Court’s Fourth Amendment jurisprudence generally, as well as its evolving approach to *Katz*-expectation-of-privacy issues, strongly suggests that the Supreme Court would consider the use by law enforcement of GPS surveillance technology to be a search under the Fourth Amendment.

140. *Id.* at 1212 (Read, J., dissenting).

141. *Id.* (Read, J., dissenting).

142. *See, e.g.*, *United States v. Garcia*, 474 F.3d 994 (7th Cir. 2007) (not a search); *United States v. McIver*, 186 F.3d 1119 (9th Cir. 1999) (same); *United States v. Michael*, 645 F.2d 252 (5th Cir. 1981) (en banc) (same). *But see, e.g.*, *United States v. Bailey*, 628 F.2d 938 (6th Cir. 1980) (search); *United States v. Shovea*, 580 F.2d 1382 (10th Cir. 1978) (same); *United States v. Moore*, 562 F.2d 106 (1st Cir. 1977) (same). The Court of Appeals for the District of Columbia has recently heard oral argument on the constitutionality of warrantless GPS tracking in *United States v. Jones*, No. 08-3034 (D.C. Cir. Nov. 17, 2009). *See, e.g.*, Brief of Appellants, *Jones*, No. 08-3034 (D.C. Cir. Nov. 17, 2009), 2009 WL 3155141. *See* Editorial, *GPS and Privacy Rights*, N.Y. TIMES, Nov. 23, 2009, at A26 (discussing the appeal).

A. *Is Knotts Controlling?*

The obvious analytical starting point is *United States v. Knotts*,¹⁴³ discussed by both the majority and dissenting opinions in *Weaver*. In *Knotts*, law enforcement agents tracked the progress of a vehicle by following the signals of a battery-operated beeper that was placed in a five-gallon drum of chloroform and that was transported by automobile to its destination.¹⁴⁴ This surveillance, the Supreme Court observed, “amounted principally to the following of an automobile on public streets and highways.”¹⁴⁵ Thus, according to the Supreme Court, the driver “voluntarily conveyed to anyone who wanted to look the fact that he was traveling over particular roads in a particular direction, the fact of whatever stops he made, and the fact of his final destination when he exited from public roads onto private property.”¹⁴⁶ The Supreme Court compared the risk that motorists assume when they travel on public roads to the risk that telephone users take when they “voluntarily convey” to the telephone company the numbers they dial and therefore “assume the risk” that the telephone company will reveal that information to the police.¹⁴⁷ Moreover, the Supreme Court added, the fact that the agents relied not only on their visual observations, but also on the beeper to assist them in following the automobile, did not alter the situation.¹⁴⁸ Comparing the beeper to a searchlight, marine glass, or field glass, the Supreme Court stated: “[n]othing in the Fourth Amendment prohibited the police from augmenting the sensory faculties bestowed upon them at birth with such enhancement as science and technology afforded them in this

143. 460 U.S. 276 (1983).

144. *Id.* at 277.

145. *Id.* at 281. The Court added that automobiles enjoy a lesser expectation of privacy than one’s residence or as a repository of personal effects. “A car has little capacity for escaping public scrutiny. It travels public thoroughfares where both its occupants and its contents are in plain view.” *Id.* (quoting *Cardwell v. Lewis*, 417 U.S. 583, 590 (1974) (plurality)).

146. *Id.* at 281-82.

147. *Id.* at 283. See *Smith v. Maryland*, 442 U.S. 735 (1979) (the installation of pen register onto a telephone in order to reveal the numbers that were dialed did not intrude upon any reasonable expectation of privacy of the phone user).

148. *Id.* at 282.

case.”¹⁴⁹ However, in a cautious response to the defendant’s argument that such a holding presaged the possibility of “twenty-four hour surveillance of any citizen of this country,”¹⁵⁰ the Supreme Court added: “if such dragnet type law enforcement practices as respondent envisions should eventually occur, there will be time enough then to determine whether different constitutional principles may be applicable.”¹⁵¹

In *Weaver*, the majority acknowledged that “[a]t first blush, it would appear that *Knotts* does not bode well for Mr. Weaver.”¹⁵² Plainly, as the majority noted, the surveillance technology in *Knotts* was used to track the progress of an automobile over public roads and the operator’s travel and routes taken were exposed to “anyone who wanted to look.”¹⁵³ However, the majority distinguished *Knotts* on three grounds, all of which are potential arguments that almost certainly will be raised in the Supreme Court if and when it considers whether law enforcement’s use of a GPS device is a search under the Fourth Amendment: the powerful technology used, the ability of this new technology to replace rather than augment human sensory perception, and the massive intrusion into privacy that the new technology facilitates.

B. *New Surveillance Technology*

First, the *Weaver* majority reasoned that the technology used in *Knotts* was “a very primitive tracking device,” as compared to the “vastly different and exponentially more sophisticated and powerful [GPS] technology that is easily and cheaply deployed and has virtually unlimited and remarkably precise tracking capability.”¹⁵⁴ The new technology is so qualitatively and quantitatively different from the beeper in *Knotts*, the majority observed, that its use by law enforcement to intrude into privacy interests forces a court to apply the *Katz*

149. *Id.*

150. *Id.* at 283.

151. *Id.* at 284.

152. *People v. Weaver*, 909 N.E.2d 1195, 1198 (N.Y. 2009).

153. *Id.* at 1198-99 (quoting *Knotts*, 460 U.S. at 281).

154. *Id.* at 1199.

expectation-of-privacy doctrine to this new technological frontier.¹⁵⁵

The *Weaver* majority recognized that advances in visual surveillance via satellite technology permits, easily and cheaply, a massive, intrusive, and unlimited surveillance of every citizen any time, any place, and regardless of atmospheric conditions.¹⁵⁶ The *Weaver* majority also recognized that the introduction of this new technology constitutes one of the greatest threats to privacy, and signals the need to adjust the Fourth Amendment expectation-of-privacy doctrine to this new phenomenon.¹⁵⁷ Further, *Weaver* recognized that *Katz's* Fourth Amendment expectation-of-privacy approach offers insufficient protection to individuals against indiscriminate use by government officials of modern surveillance technology, and that the Court of Appeals should not rely on the Supreme Court's restrictive interpretation of the Fourth Amendment for the protection of individual privacy.¹⁵⁸

To be sure, the Supreme Court has not been impervious to the "power of technology to shrink the realm of guaranteed privacy,"¹⁵⁹ and has recognized that Fourth Amendment search and seizure doctrine must evolve to accommodate advances in technology.¹⁶⁰ Thus, in *Dow Chemical Company v. United States*,¹⁶¹ the Supreme Court held that aerial photography of an industrial plant by the Environmental Protection Agency using a conventional commercial camera was not a search since "[a]ny person with an airplane and an aerial camera could readily duplicate them."¹⁶² The Court added that the

155. *Id.*

156. *Id.*

157. *See id.* at 1198-99. *See also* *United States v. Kyllo*, 533 U.S. 27, 34 (2001) ("The question we confront today is what limits there are upon [the] power of technology to shrink the realm of guaranteed privacy.").

158. *See Weaver*, 909 N.E.2d at 1202.

159. *Kyllo*, 533 U.S. at 34.

160. *See id.* at 36 ("[T]he rule we adopt must take account of more sophisticated systems that are already in use or in development.").

161. 476 U.S. 227 (1986).

162. *Id.* at 231. The Court noted that "a casual passenger on an airliner" or "a company producing maps" could have taken the pictures. *Id.* at 232. *But see id.* at 242 n.4 (Powell, J., concurring in part and dissenting in part) (camera used by the agency cost in excess of \$22,000 and was described as

photography was not accomplished by using “sophisticated surveillance equipment not generally available to the public, such as satellite technology, [which] might be constitutionally proscribed absent a warrant,”¹⁶³ nor were the photographs “so revealing of intimate details as to raise constitutional concerns.”¹⁶⁴ Ultimately, however, the Court held that “[t]he mere fact that human vision is enhanced somewhat, at least to the degree here, does not give rise to constitutional problems.”¹⁶⁵

Moreover, *Weaver*’s attempt to distinguish *Knotts* by emphasizing that the police had used sophisticated GPS technology to obtain information not visible to the naked eye may find some support in *Kyllo v. United States*.¹⁶⁶ In *Kyllo*, the Supreme Court held that the government’s use of a new infrared technology—an Agema Thermovision 210 thermal imager—to detect heat emanating from a person’s home by converting radiation into images based on relative warmth constituted a search under the Fourth Amendment that required a warrant.¹⁶⁷ The Court observed that the technology used by the government “is not in general public use,” and that the device “explore[d] details of the home that would previously have been unknowable without physical intrusion.”¹⁶⁸ Acknowledging, as did the majority in *Weaver*, the potential of vast and highly sophisticated satellite and radar technology to “shrink the realm of guaranteed privacy,”¹⁶⁹ the Court stated that “we must take the long view, from the original meaning of the Fourth Amendment.”¹⁷⁰

C. GPS: Enhancement or Replacement

The second ground upon which the *Weaver* majority

“the finest precision aerial camera available”).

163. *Id.* at 238.

164. *Id.*

165. *Id.*

166. 533 U.S. 27 (2001).

167. *Id.* at 40.

168. *Id.*

169. *Id.* at 34.

170. *Id.* at 40.

distinguished *Knotts* was to point out that the beeper in *Knotts* “functioned merely as an enhancing adjunct to the surveilling officers’ senses,” and was used “as a means of maintaining and regaining actual visual contact with it.”¹⁷¹ According to the majority, the GPS, by contrast, is not a mere “enhancement of human sensory capacity.”¹⁷² Rather, “it facilitates a new technological perception of the world in which the situation of any object may be followed and exhaustively recorded over, in most cases, a practically unlimited period.”¹⁷³ For law enforcement agents to actually “see” what the GPS “sees,” according to the *Weaver* majority, would require “at a minimum, millions of additional police officers and cameras on every street lamp.”¹⁷⁴

The extent to which technology “enhances” the human senses, as the beeper did in *Knotts*, and the camera did in *Dow Chemical*, or “replaces” the human senses, as the thermal imager did in *Kyllo*, is a relevant consideration in analyzing whether surveillance technology constitutes a Fourth Amendment search. According to Judge Smith’s dissenting opinion in *Weaver*, the GPS merely augmented information that the police could have obtained anyway. “It is beyond any question,” Judge Smith contended, that the police could have obtained the “same information” that was obtained by using the GPS by “assign[ing] an officer, or a team of officers, to follow [Weaver] everywhere he went.”¹⁷⁵ However, while theoretically possible, Judge Smith’s position is untenable as a practical matter and unrealistic. It is inconceivable that, given budgetary constraints on police work, finite time pressures for different and competing investigations, and limited police personnel, the police would have been able to “tail” Weaver every hour of every day for sixty-five days to get the information they used to convict him. Indeed, the use of a beeper, as in *Knotts*, did not replace police surveillance but merely enabled the police to maintain visual contact with an

171. *People v. Weaver*, 909 N.E.2d 1195, 1199 (N.Y. 2009).

172. *Id.*

173. *Id.*

174. *Id.*

175. *Id.* at 1204 (Smith, J., dissenting).

already suspicious vehicle.¹⁷⁶ It is therefore implausible to think of the GPS as an “enhancement” of what could be seen with the naked eye, just as it is implausible to construe the thermal imager in *Kyllo* as an enhancement of what could be seen by watching snow melt off a portion of the roof of a house.¹⁷⁷ Indeed, it would be equally implausible to think of GPS as enhancing the surveillance that could have been accomplished by a police officer hiding in the back seat of Weaver’s van for sixty-five days.

Moreover, to the extent that the *Katz* expectation-of-privacy formulation, as it was applied in *Knotts* and other cases, includes a reference to a person who “voluntarily conveys” information to “anyone who wanted to look”—the motorist traveling on public roads in *Knotts*,¹⁷⁸ or the telephone user dialing numbers in *Smith v. Maryland*¹⁷⁹—it is completely inapplicable to technology that replaces human sensory perception. Indeed, most people probably would acknowledge that one of the risks in modern society is exposure to technology that augments that which is visible to the naked eye—i.e., the beeper in *Knotts*, the camera in *Dow Chemical*, as well as surveillance cameras in many public places. Moreover, it is not unreasonable to suggest that people may be deemed to have “voluntarily conveyed” to the outside world information about their public activities that is visible to the outside world by virtue of this “augmenting” technology. However, it is unreasonable, even perverse, to suggest that persons have “voluntarily conveyed” to sophisticated technology the capacity to “see” them up close constantly, continuously, and for an infinite period of time, to “record” detailed information as to their movements through the world, to “transmit” to the government all of the personal data that has been collected, and to “retain” this information for an indefinite and unlimited period of time.

176. See *United States v. Berry*, 300 F. Supp. 2d 366, 368 (D. Md. 2004) (“Beepers placed on cars merely help the police stay in contact with the vehicle that they are actively ‘tailing.’”).

177. *But see United States v. Garcia*, 474 F.3d 994, 997 (7th Cir. 2007) (GPS technology not a “substitute” for activity of “following a car on a public street”).

178. See *United States v. Knotts*, 460 U.S. 276 (1983).

179. See 442 U.S. 735 (1970).

By the same token, the inclusion in the *Katz* formulation of the concept of “assumption of the risk” is also seriously out of place in the context of technology that is used as a substitute for the use of human senses. It may well be that when people move about in public, or talk to other people, they assume a risk that their actions will be seen and photographed, and their words heard and recorded. Notwithstanding an abstract “right to be let alone,” these are risks that the Fourth Amendment imposes on privacy interests, and one of the most contentious issues underlying the *Katz* expectation-of-privacy analysis.¹⁸⁰ However, it is one thing to suggest that a person assumes a risk that his words may be recorded by a listener, or his actions photographed by an observer; it is a far more dubious and even dangerous contention that privacy expectations under the Fourth Amendment require citizens to assume the risk that they will be “seen” constantly, continuously, and for an unlimited period of time by government’s omnipresent and pervasive “Orwellian” surveillance technology, without any judicial oversight or constitutional constraints.¹⁸¹

D. *Degrees of Intrusions into Privacy*

The third ground upon which the *Weaver* majority distinguished *Knotts* was to contrast the limited and discrete intrusion in *Knotts* with the unlimited and prolonged intrusion

180. See 1 WAYNE LA FAVE, SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT 313 (2d ed. 1987) (“[T]he fundamental inquiry is whether [a government] practice, if not subjected to Fourth Amendment restraints, would be intolerable because it would either encroach too much upon the ‘sense of security’ or impose unreasonable burdens upon those who wished to maintain that security.”).

181. See, e.g., *State v. Campbell*, 759 P.2d 1040, 1048-49 (Or. 1988).

Conversations in public may be overheard, but it is relatively easy to avoid eavesdroppers by lowering the voice or moving away. Moreover, one can be reasonably sure of whether one will be overheard. But if the state’s position in this case is correct, no movement, no location and no conversation in a ‘public place’ would in any measure be secure from the prying of the government.

Id.

in *Weaver*. The beeper in *Knotts*, as the *Weaver* majority observed, was used to enable the police to “tail” an automobile during one single trip that involved “a focused binary police investigation for the discreet purpose of ascertaining the destination of a particular container of chloroform.”¹⁸² The GPS device, according to the *Weaver* majority, involved a “massive invasion of privacy”¹⁸³ by exposing “the whole of a person’s progress through the world, into both public and private spatial spheres, [which] can be charted and recorded over lengthy periods.”¹⁸⁴ As the majority observed, GPS could reveal “trips to the psychiatrist, the plastic surgeon, the abortion clinic, the AIDS treatment center, the strip club, the criminal defense attorney, the by-the-hour motel, the union meeting, the mosque, synagogue or church, the gay bar and on and on.”¹⁸⁵ GPS can thereby reveal and record “with breathtaking quality and quantity . . . a highly detailed profile, not simply of where we go, but by easy inference, of our associations—political, religious, amicable and amorous, to name only a few—and of the pattern of our professional and avocational pursuits.”¹⁸⁶

The dissenting opinion of Judge Smith in the Court of Appeals attempted to minimize the magnitude of the GPS intrusion by adopting an “all-or-nothing” interpretation of *Knotts*. That is, Judge Smith suggested, “an officer, or a team of officers,” could have followed Weaver everywhere he went, whether it involved trips to the psychiatrist’s office or the gay bar, and could have recorded, photographed, filmed, and reported the “same information” that was obtained from the GPS, as long as Weaver remained in public places.¹⁸⁷ According to Judge Smith, once a person decides to expose his identity and activities to the world by driving in a car on a

182. *People v. Weaver*, 909 N.E.2d 1195, 1199 (N.Y. 2009).

183. *Id.* at 1201.

184. *Id.* at 1199.

185. *Id.*

186. *Id.* at 1199-1200. See *State v. Jackson*, 76 P.3d 217, 223 (Wash. 2003) (en banc) (“In this age, vehicles are used to take people to a vast number of places that can reveal preferences, alignments, associations, personal ails and foibles. The GPS tracking devices record all of these travels, and thus can provide a detailed picture of one’s life.”).

187. *Weaver*, 909 N.E.2d at 1204 (Smith, J., dissenting).

public road—at any particular moment, as in *Knotts*—then he or she has assumed the risk of exposing his or her identity and activities continuously and indefinitely.¹⁸⁸ But Judge Smith did not acknowledge the practical and logistical difficulties that law enforcement would face in trying to obtain the “same information” by the visual and beeper surveillance used in *Knotts*. Further, Judge Smith did not acknowledge any differences in terms of the quality and intensity of the intrusion into privacy interests between the limited visual and beeper surveillance in *Knotts* and the GPS surveillance in *Weaver*.

Yet in distinguishing *Knotts*, this is precisely what the *Weaver* majority recognized. One of the central themes of the Supreme Court’s Fourth Amendment jurisprudence is, in fact, the existence of different degrees of intrusions by government into privacy interests, and the extent to which these different degrees of intrusion require different levels of justification. For example, in *Terry v. Ohio*, the Supreme Court recognized that, while the government’s interest in investigating reasonably suspicious behavior authorized police to forcibly detain an individual for a limited period of time, this temporary detention did not justify the greater intrusion of a search of the suspect.¹⁸⁹ However, as the Supreme Court ruled, there does exist a justification for a lesser intrusion—a “pat down” or “frisk” of the suspect.¹⁹⁰ The Supreme Court “emphatically reject[ed]” the government’s argument that a “frisk” of a suspect was merely a “petty indignity” that did not rise to the level of a search under the Fourth Amendment.¹⁹¹ Although a frisk is not as intrusive as a full-blown search, a frisk “is a serious intrusion upon the sanctity of the person, which may inflict great indignity and arouse strong resentment.”¹⁹²

The existence of degrees of intrusions into privacy—which the *Weaver* majority recognized and which Judge Smith did not—is also demonstrated by *Camara v. Municipal Court of the City and County of San Francisco*, where the Supreme Court

188. *See id.* (Smith, J., dissenting).

189. *Terry v. Ohio*, 392 U.S. 1, 19-20, 25 (1968).

190. *Id.* at 24-25.

191. *Id.* at 16-17.

192. *Id.* at 17.

recognized that an administrative inspection of a home for code violations is not as intrusive as a search conducted pursuant to a criminal investigation, and that therefore, although a “significant intrusion,” such a search requires less justification.¹⁹³ Moreover, where intrusions into privacy interests are “minimal,” such as being subjected to drug¹⁹⁴ and blood testing,¹⁹⁵ the Supreme Court has authorized intrusions into a person’s body that require only minimal justification, whereas more extensive intrusions into bodily privacy and bodily integrity require greater justification.¹⁹⁶

Furthermore, just as the Supreme Court has recognized that government intrusions into privacy vary widely in terms of nature and scope, and that judicial responses require different levels of justification, so has the Supreme Court recognized the existence of varying levels of expectations of privacy. Thus, the Court has recognized different expectations of privacy with respect to different places, such as homes,¹⁹⁷ containers,¹⁹⁸ and vehicles.¹⁹⁹ Moreover, although the Supreme Court in some

193. *Camara v. Mun. Court*, 387 U.S. 523, 534 (1967).

194. *See Skinner v. Ry. Labor Executives’ Ass’n*, 489 U.S. 602, 624 (1989) (“[P]rivacy interests implicated by the search are minimal.”).

195. *See Schmerber v. California*, 384 U.S. 757, 771 (1966) (intrusion not significant since such tests “are a commonplace”).

196. *See, e.g., Winston v. Lee*, 470 U.S. 753, 762 (1985) (surgery to remove bullet).

197. *See Kyllo v. United States*, 533 U.S. 27, 40 (2001) (“Fourth Amendment draws ‘a firm line at the entrance to the house’” (quoting *Payton v. New York*, 445 U.S. 573, 590 (1980))); *Silverman v. United States*, 365 U.S. 505, 511 (1961) (“At the very core [of the Fourth Amendment] stands the right of a man to retreat into his own home and there be free from unreasonable governmental intrusion.”).

198. *See United States v. Chadwick*, 433 U.S. 1, 13 (1977) (finding a privacy interest in luggage because the luggage was not open to public view, not subject to regular inspections and official scrutiny, and is intended as a repository of personal effects). The Court has also recognized, however, degrees on intrusions into the privacy of luggage. *See United States v. Place*, 462 U.S. 696, 707 (1983) (notwithstanding that a person possesses a privacy interest in the contents of personal luggage, a “canine sniff” by a well-trained narcotics detection dog “is much less intrusive than a typical search”).

199. *See Cady v. Dombrowski*, 413 U.S. 433, 441-42 (1973) (finding a diminished expectation of privacy for automobiles because of requirements that automobiles be registered, periodically inspected, their operators be licensed, the existence of regulations concerning the manner in which they may be operated, and the occasional seizure of them in the interests of public safety).

contexts has taken an “all-or-nothing” approach to expectations of privacy,²⁰⁰ it has also recognized that the reasonableness of expectations of privacy may vary depending on the nature and extent of the government’s intrusion. Thus, in *Bond v. United States*, the Supreme Court held that the exploratory manipulation of the outside of a bus passenger’s canvas bag by a narcotics agent was an excessive intrusion into the passenger’s reasonable expectation of privacy in his bag.²⁰¹ Although a bus passenger “clearly expects that his bag may be handled. . . [h]e does not expect that other passengers or bus employees will, as a matter of course, feel the bag in an exploratory manner.”²⁰² Similarly, in *Dow Chemical*, the Supreme Court held that, while aerial photographs of an industrial plant did not intrude into a legitimate expectation of privacy since a casual passenger in an airplane could have taken the same photographs, surveillance of private property by using “highly sophisticated” satellite technology that could reveal “intimate details” might be such an excessive intrusion as to implicate constitutional concerns.²⁰³ Further, the Court has recognized that even though a person possesses a privacy interest in the contents of personal luggage,²⁰⁴ a “canine sniff” of that luggage by a well-trained narcotics detection dog is not a search within the meaning of the Fourth Amendment.²⁰⁵ The sniff, according to the Court in *United States v. Place*, while an intrusion, does not expose non-contraband items that otherwise would remain hidden, and discloses only the presence or absence of narcotics.²⁰⁶ “[T]his investigative technique,” said the Court, “is much less intrusive than a typical search.”²⁰⁷ Finally, in *Mancusi v. DeForte*, the Supreme Court recognized a difference in the reasonableness of the expectation of privacy depending on the identity of the intruder.²⁰⁸ In *Mancusi*, the

200. See Doernberg, *supra* note 21, at 295 (describing the Supreme Court’s “muddled view of privacy as an all-or-nothing concept”).

201. *Bond v. United States*, 529 U.S. 334, 338-39 (2000).

202. *Id.*

203. *Dow Chem. Co. v. United States*, 476 U.S. 227, 238 (1986).

204. See *United States v. Chadwick*, 433 U.S. 1, 13 (1977).

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

206. *Id.*

207. *Id.*

208. *Mancusi v. DeForte*, 392 U.S. 364 (1968).

Court held that a union official had no reasonable expectation of privacy with respect to his union superiors, but that he did have a reasonable expectation of privacy with respect to the government.²⁰⁹

These cases all recognize that there can be a legally significant difference in terms of the degree, scope, and duration of an intrusion into privacy.²¹⁰ That difference is particularly stark between the visual and beeper surveillance used in *Knotts*, and the GPS surveillance used in *Weaver*. Being watched by the government on one discrete occasion, as in *Knotts*, and being watched constantly and continuously for sixty-five days, as in *Weaver*, are so different as to require different constitutional responses. Moreover, there is some empirical evidence to suggest that society recognizes the difference between the two.²¹¹ In addition, Congress has enacted legislation requiring a judicial warrant for electronic tracking devices.²¹² This evidence suggests that most people do not expect that the government will be watching their every movement and the locations of their travel routes and destinations for an extended period of time. This kind of “dagnet” intrusion into privacy conjures up Orwellian images of “mass surveillance” of motorists picked at random by the

209. *Id.* at 369.

210. The Court has also recognized that intrusions into possessory interests can vary in their intensity. *See Place*, 462 U.S. at 705 (“The intrusion on possessory interests occasioned by a seizure of one’s personal effects can vary both in its nature and extent.”). As to whether the attachment of the GPS device constitutes a seizure, see *infra* Part III.

211. *See* Christopher Slobogin, *Public Privacy: Camera Surveillance of Public Places and the Right to Anonymity*, 72 *MISS. L.J.* 213 (2002) (according to a survey, the intrusiveness of police using camera surveillance of a public street where the tapes are retained is of far greater concern than where tapes are destroyed). *See also* Ben Hubbard, *Police Turn to Secret Weapon: GPS Device*, *WASHINGTONPOST.COM*, Aug. 13, 2008, available at <http://www.washingtonpost.com/wp-dyn/content/article/2008/08/12/AR2008081203275.html> (follow “Poll”) (stating that sixty percent of 3,008 responders believed that the “growing use of GPS technology by police departments to track criminal suspects marks [a] troubling trend”).

212. *See* 18 U.S.C. § 3117(a) (2006) (authorizing courts to issue warrants for installation of mobile tracking devices). *But see* *United States v. Gbemisola*, 225 F.3d 753, 758 (D.C. Cir. 2000) (finding that Congress understood that “warrants are not always required for either the installation or use of mobile tracking devices”).

government, and using digital search techniques to identify suspicious patterns of behavior.²¹³ Whether such a massive surveillance program constitutes a Fourth Amendment search that requires a warrant, or instead is merely an “efficient alternative to hiring another [ten] million police officers to tail every vehicle on the nation’s roads”²¹⁴ is a federal question that the Supreme Court one day may answer; but, as a result of *People v. Weaver*, it is a question that has been definitively and conclusively answered by the New York State Court of Appeals under the State Constitution.

Finally, given the profound effect of technology to increase the ability of law enforcement to scrutinize any given individual, or many of them,²¹⁵ the “ultimate question” posed by Professor Anthony Amsterdam is “whether, if [a] particular form of surveillance practiced by the police is permitted to go unregulated by constitutional restraints, the amount of privacy and freedom remaining to citizens would be diminished to a compass inconsistent with the aims of a free and open society.”²¹⁶ It is hardly an answer, as Judge Smith argues in his dissent, to claim that since criminals will use the most modern and efficient tools available to them, and will not get warrants to do so, the courts should not impose restraints on the ability of the police to employ the same technology to catch them.²¹⁷ Contrary to this hyperbole, however, there is no

213. See *United States v. Garcia*, 474 F.3d 994, 998 (7th Cir. 2007).

One can imagine the police affixing GPS tracking devices to thousands of cars at random, recovering the devices, and using digital search techniques to identify suspicious driving patterns. One can even imagine a law requiring all new cars to come equipped with the device so that the government can keep track of all vehicular movement in the United States.

Id.

214. *Id.*

215. See *Kyllo v. United States*, 533 U.S. 27, 33-34 (2001) (“It would be foolish to contend that the degree of privacy secured to citizens by the Fourth Amendment has been entirely unaffected by the advance of technology.”).

216. See Anthony G. Amsterdam, *Perspectives on the Fourth Amendment*, 58 MINN. L. REV. 349, 403 (1974).

217. *People v. Weaver*, 909 N.E.2d 1195, 1204 (N.Y. 2009) (Smith, J., dissenting).

suggestion in *Weaver* that police may not use technology to solve crime. The majority simply requires that the police obtain a warrant to do so, which police have been required to do for centuries.

III. GPS Tracking as a Seizure

The Supreme Court has declared that a government “seizure” of property occurs “when there is some meaningful interference with an individual’s possessory interests in that property.”²¹⁸ Under the Supreme Court’s definition, the attachment of the GPS should constitute a “meaningful interference” with the owner’s right to use his property exclusively for his own purpose and to exclude everyone else from his property, including the government.²¹⁹ Whether the attachment of the beeper in *Knotts*, or that of the GPS in *Weaver*, “meaningfully interferes” with an individual’s possessory interest in that property is an open question under both the federal and New York State constitutions. Neither the Supreme Court in *Knotts*, nor the Court of Appeals in *Weaver*, addressed that question.²²⁰

Interestingly, the Massachusetts Supreme Court recently decided the question. In *Commonwealth v. Connolly*, the court found that police had seized the defendant’s vehicle by entering his van for one hour to install a GPS device, and by operating the van’s electrical system in order to attach the device to the

218. *United States v. Jacobsen*, 466 U.S. 109, 113 (1984). *See United States v. Place*, 462 U.S. 696, 701 (1983) (“In the ordinary case, the Court has viewed a seizure of personal property as *per se* unreasonable within the meaning of the Fourth Amendment unless it is accomplished pursuant to a judicial warrant issued upon probable cause and particularly describing the items to be seized.”).

219. *See United States v. Karo*, 468 U.S. 705, 729 (1984) (Stevens, J., concurring in part and dissenting in part).

220. *See United States v. Knotts*, 460 U.S. 276, 286 (1983) (Brennan, J., concurring) (“I think this would have been a much more difficult case if respondent had challenged, not merely certain aspects of the monitoring of the beeper installed in the chloroform container purchased by respondent’s compatriot, but also its original installation.”); *Weaver*, 909 N.E.2d at 1204 (Smith, J., dissenting) (“[S]urreptitious attachment of the device to the car . . . goes virtually unmentioned.”). The Court in *Knotts* noted that several Courts of Appeals approved the warrantless installations of beepers. 460 U.S. at 279 n. (unnumbered footnote).

vehicle's power source and verify that it was operating properly.²²¹ The court stated that the operation of the GPS, which had required power from the defendant's vehicle, was "an ongoing physical intrusion."²²² The court also found that a seizure occurred regardless of whether the GPS draws power from the vehicle.²²³ "It is a seizure," the court declared, "not by virtue of the technology employed, but because the police use private property (the vehicle) to obtain information for their own purposes."²²⁴ The continual monitoring by the police transformed the vehicle into a "messenger" for the government,²²⁵ as well as "substantially infring[ing] on another meaningful possessory interest in the minivan: the defendant's use and enjoyment of his vehicle."²²⁶

In his dissent in *Weaver*, Judge Smith explicitly addressed this "hard" question—whether the installation of the GPS constituted a seizure.²²⁷ Although he was "troubled" by what he considered a "trespass" that violated the defendant's property rights,²²⁸ he concluded, "with some hesitation," that the trespass did not violate the defendant's right to be free from unreasonable searches.²²⁹ Judge Richard Posner reached a similar conclusion in *United States v. Garcia*.²³⁰ Judge Posner held that it is "untenable" to claim that the government's attachment of a GPS device underneath the defendant's vehicle constituted a Fourth Amendment seizure.²³¹ The GPS device, he noted, "did not affect the car's driving qualities, did not draw power from the car's engine or battery, did not take up [any] room that might . . . have been occupied by passengers or packages, [and] did not . . . alter the

221. *Commonwealth v. Connolly*, 913 N.E.2d 356, 369 (Mass. 2009).

222. *Id.*

223. *Id.* at 370.

224. *Id.*

225. *Id.*

226. *Id.*

227. *People v. Weaver*, 909 N.E.2d 1195, 1205 (N.Y. 2009) (Smith, J., dissenting).

228. *Id.* (Smith, J., dissenting).

229. *Id.* (Smith, J., dissenting).

230. 474 F.3d 994 (7th Cir. 2007).

231. *Id.* at 996.

car's appearance."²³² In short, he said, the attachment "did not 'seize' the car in any intelligible sense of the word."²³³

However, there is an alternative interpretation of a seizure that follows the reasoning of Justice Stevens in his concurring and dissenting opinion in *United States v. Karo*.²³⁴ According to Justice Stevens, by attaching an electronic monitoring device to a car, the government asserted "dominion and control" over the car,²³⁵ and "in a fundamental sense . . . converted the property to its own use," thereby depriving the owner of the right to use his property exclusively.²³⁶ Such interference is also "meaningful," according to Justice Stevens, because "the character of the property is profoundly different when infected with an electronic bug than when it is entirely germ free."²³⁷

Lending support to Justice Stevens's view of the meaning of a seizure is *Silverman v. United States*.²³⁸ In *Silverman*, the Supreme Court held that the attachment of a listening device to the heating duct of an apartment building in order to overhear conversations "usurp[ed]" the owner's property rights without his knowledge or consent.²³⁹ The Court refused to consider whether such intrusion into a person's tangible property interests may have constituted a "technical trespass" under "ancient niceties of tort or real property law,"²⁴⁰ because it clearly implicated the Fourth Amendment right of a person to exclusive and exclusionary use of his or her property.²⁴¹

In his dissenting opinion in *Weaver*, Judge Smith attempted to draw a "fine distinction" between property rights and privacy rights.²⁴² Judge Smith acknowledged that the

232. *Id.*

233. *Id.*

234. 468 U.S. 705 (1984).

235. *Id.* at 730 (Stevens, J., concurring in part and dissenting in part) ("[A]ssert[ing] dominion and control' is a 'seizure' in the most basic sense of the term." (quoting *United States v. Jacobsen*, 466 U.S. 109, 120 (1984))).

236. *Id.* at 729 (Stevens, J., concurring in part and dissenting in part).

237. *Id.* (Stevens, J., concurring in part and dissenting in part).

238. 365 U.S. 505 (1961).

239. *Id.* at 511.

240. *Id.*

241. *Id.*

242. *People v. Weaver*, 909 N.E.2d 1195, 1206 (N.Y. 2009) (Smith, J., dissenting).

police did trespass onto the defendant's property and thereby violated his property rights.²⁴³ However, according to Judge Smith, the attachment of the GPS device "did not invade his privacy."²⁴⁴ As Judge Smith elaborated, Weaver's car was parked on a public street and "[n]o one who chooses to park in such a location can reasonably think that the outside—even the underside—of the car is in a place of privacy."²⁴⁵ While Judge Smith acknowledged that a person may reasonably expect that others will leave his car alone and not tamper with it by sneaking underneath of it and installing electronic devices, that is not an expectation of privacy, but "an expectation of respect for one's property rights."²⁴⁶ The distinction between a defendant's "property" interest and his "privacy" interest, Judge Smith observed, although a "fine distinction," is nevertheless a "critical" distinction.²⁴⁷ A trespass to private property is not a search when that private property is located in a public place, Judge Smith argued, unless information is acquired that the property owner reasonably expected to keep private.²⁴⁸ Thus, although disapproving "the idea of a police officer—or anyone else—sneaking under someone's car in the middle of the night to attach a tracking device,"²⁴⁹ Judge Smith concluded that however "distasteful,"²⁵⁰ a court should not, in effect, expand privacy rights beyond those guaranteed by the state and federal constitutions.

IV. Conclusion

The *Katz* expectation-of-privacy test requires a person who claims the protection of the Fourth Amendment to demonstrate both a subjective expectation of privacy and an expectation of privacy that society considers reasonable. However, as this

243. *Id.* (Smith, J., dissenting).

244. *Id.* (Smith, J., dissenting).

245. *Id.* (Smith, J., dissenting).

246. *Id.* (Smith, J., dissenting).

247. *Id.* (Smith, J., dissenting).

248. *Id.* (Smith, J., dissenting). Judge Smith cited *Bond v. United States*, 529 U.S. 334 (2000) where the Court suppressed drugs discovered by a narcotics agent by manipulating the outer portion of the defendant's luggage.

249. *Weaver*, 909 N.E.2d at 1205 (Smith, J., dissenting).

250. *Id.* at 1206 (Smith, J., dissenting).

Article has shown, the *Katz* test may be inadequate with respect to intrusions into privacy interests that involve highly sophisticated surveillance technology. The Supreme Court has acknowledged that the protections of the Fourth Amendment must evolve with the advances of science and technology. The question presented to the New York Court of Appeals in *People v. Weaver* was whether the federal or state constitution offered protection to a defendant where law enforcement officials had attached a GPS device to his vehicle and monitored his travels every hour of every day for sixty-five days, and used information from the surveillance to convict him of a burglary.

Given the fact that the Supreme Court had not addressed this issue, and that a related precedent in the Supreme Court, *United States v. Knotts*, involved the use by law enforcement of a much less sophisticated tracking device, the Court of Appeals chose not to analyze the case under the Federal Constitution and distinguish *Knotts*, but rather to apply the State Constitution. The Court of Appeals found that under the State Constitution, the attachment of the GPS and the prolonged surveillance was a search. As the Court of Appeals persuasively demonstrated, the degree and magnitude of GPS surveillance involves such a massive invasion of privacy that a judicial warrant is required for its use. Moreover, although the Court of Appeals did not address the issue, there are respectable arguments that the government's surreptitious installation of a GPS device to a vehicle constitutes a seizure because such conduct interferes with a person's property interests in a sufficiently meaningful way.