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GPS Tracking out of Fourth Amendment Dead Ends: United States v. Jones and the Katz Conundrum

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GPS TRACKING OUT OF FOURTH AMENDMENT DEAD ENDS: UNITED STATES V. JONES AND THE KATZ CONUNDRUM

FABIO ARCILA, JR.**

United States v. Jones, which reviewed the Fourth Amendment constitutionality of warrantless GPS tracking, may be the most important Fourth Amendment opinion since the Supreme Court decided Katz v. United States over four decades ago. Though Katz has dominated Fourth Amendment jurisprudence, it introduced significant ambiguities, such as the conundrum concerning whether search analysis turns upon privacy expectations or spatial distinctions rooted in property and trespass. Jones was a highly anticipated decision because it was widely understood that it might have ramifications for numerous core Fourth Amendment doctrines, including the Katz conundrum, and in turn for many governmental activities either currently or potentially subject to the Fourth Amendment. routine criminal law enforcement Examples include investigations, technological surveillance for either criminal or civil purposes (through GPS but also other means, such as location tracking capabilities embedded in individuals' cellular telephones), and national security, to name a few.

The attention devoted to Jones by the legal community and public at large was fully merited. Surprisingly, the Supreme Court ruled unanimously that the GPS tracking at issue was subject to Fourth Amendment protections. More substantively,

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^{**} Professor of Law, Touro Law Center. I participated pro bono in *United States v. Jones* by consulting with Jones's Supreme Court counsel and authoring a historical amicus brief supporting Jones.

I presented this paper at the 2012 Law and Society Annual Meeting, and am appreciative of the helpful comments and thoughts from fellow panelists and audience members that I received there, including from Larry Rosenthal and Melissa Hamilton. I am also grateful to my research assistants who aided me on this project: Jennifer Maldonado and Larry Przetakiewicz.

however, the decision resulted in three separate opinions applying vastly different rationales. This Article explains the Jones decision; situates it within the broader framework of constitutional search and seizure law; analyzes and critiques the various opinions; and explores the many varied, significant implications that Jones either will or may have for the future of Fourth Amendment jurisprudence. It makes two overarching points. First, Jones is much more important for the reasoning that the various Justices employed than it is for its technically narrow holding. Second, though Jones either resolves, or suggests answers to, important questions that Katz raised, in doing so Jones itself raises significant issues for future consideration.

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INTRODUCTION

In *United States v. Jones*,¹ the Supreme Court recently responded to law enforcement's aggressive use of surreptitious, prolonged, and warrantless global positioning system ("GPS") tracking, a practice which had led to proliferating judicial references to dystopia² and George Orwell's 1984.³ Federal circuit courts had initially found no Fourth Amendment problem with this governmental activity,⁴ though

^{1. 132} S. Ct. 945 (2012).

^{2.} See, e.g., United States v. Cuevas-Perez, 640 F.3d 272, 276 (7th Cir. 2011) (referring to GPS tracking as "a technology surely capable of abuses fit for a dystopian novel"), vacated, 132 S. Ct. 1534 (2012); id. at 286 (Wood, J., dissenting) (describing "the government's ability constantly to monitor a person's movements, on and off the public streets, for an open-ended period of time" and opining that such systems "make the [one] that George Orwell depicted in his famous novel, 1984, seem clumsy and easily avoidable by comparison"); United States v. Pineda-Moreno, 617 F.3d 1120, 1121 (9th Cir. 2010) (Kozinski, C.J., dissenting from the denial of rehearing en banc) ("1984 may have come a bit later than predicted, but it's here at last."); id. at 1126 ("There is something creepy and un-American about such clandestine and underhanded behavior. To those of us who have lived under a totalitarian regime, there is an eerie feeling of déjà vu."). Technological advances have also resulted in similar references in slightly different contexts. See, e.g., In re Application of the U.S. Authorizing the Release of Historical Cell-Site Info., 809 F. Supp. 2d 113, 127 (E.D.N.Y. 2011) (writing, in response to the government's demand for cell-site-location data for a period of at least 113 days, that "[w]hile the government's monitoring of our thoughts may be the archetypical Orwellian intrusion, the government's surveillance of our movements over a considerable time period through new technologies, such as the collection of cell-site-location records, without the protections of the Fourth Amendment, puts our country far closer to Oceania than our Constitution permits."). 1984 was also referenced several times during the Supreme Court oral argument in Jones. See Transcript of Oral Argument at 13, 25, 27, 33, 35, 57, United States v. Jones, 132 S. Ct. 945 (2012) (No. 10-1259), http://www.supremecourt.gov/oral_arguments/argument_transcripts /10-1259.pdf [hereinafter Jones Transcript].

^{3.} GEORGE ORWELL, 1984 (1949).

^{4.} Several federal circuits had upheld the warrantless *installation* of a GPS device against a Fourth Amendment *seizure* challenge. *See*, *e.g.*, United States v. Hernandez, 647 F.3d 216, 220 n.4 (5th Cir. 2011); *Cuevas-Perez*, 640 F.3d at 274 n.2, 275-76; United States

state courts had largely been resistant, either on Fourth Amendment or state constitutional grounds.⁵ The Supreme Court entered the fray through *Jones* after the District of Columbia Circuit created a federal circuit split on the issue.⁶ This was the Court's second opportunity in the last few years to reconsider the Fourth Amendment in light of rapidly advancing technological developments, and to provide bolder and more meaningful guidance about the future of constitutional search and seizure jurisprudence.⁷

v. Garcia, 474 F.3d 994, 996 (7th Cir. 2007); United States v. McIver, 186 F.3d 1119, 1126-27 (9th Cir. 1999) (finding no seizure absent deprivation of "dominion and control" over the vehicle or "damage to the electronic components of the vehicle"). One circuit had rejected an argument that *installation* of a GPS device constituted an illegal *search* under the Fourth Amendment. *See McIver*, 186 F.3d at 1126-27. Numerous federal circuits had ruled that *monitoring* of these GPS devices did not constitute a Fourth Amendment *search*. *See*, *e.g.*, *Hernandez*, 647 F.3d at 220 n.4; *Cuevas-Perez*, 640 F.3d at 275-76; United States v. Marquez, 605 F.3d 604, 609-10 (8th Cir. 2010); United States v. Pineda-Moreno, 591 F.3d 1212, 1216-17 (9th Cir. 2010).

^{5.} See Commonwealth v. Connolly, 913 N.E.2d 356, 369-70 (Mass. 2009) (ruling that warrantless GPS installation was a seizure under the Massachusetts Declaration of Rights, article 14); People v. Weaver, 909 N.E.2d 1195, 1195-96 (N.Y. 2009) (holding that the warrantless GPS tracking of a van's position for sixty-five days constituted an illegal search under the New York Constitution, article I, section 12); State v. Jackson, 76 P.3d 217, 222, 224 (Wash. 2003) (en banc) (ruling that "use of a GPS device on a private vehicle involves a search and seizure" under the Washington State Constitution, article I, section 7, which "focuses on those privacy interests which citizens of this state have held, and should be entitled to hold, safe from governmental trespass" (internal quotation marks omitted)). But see Foltz v. Commonwealth, 698 S.E.2d 281, 285-93 (Va. Ct. App. 2010) (rejecting Fourth Amendment search and seizure claims), aff'd on reh'g en banc, 706 S.E.2d 914 (Va. Ct. App. 2011); State v. Sveum, 2009 WI App. 81, ¶¶ 1-2, 319 Wisc. 2d 498, 769 N.W.2d 53, 56 (rejecting Fourth Amendment challenge to police search that used GPS device to monitor car's movement), aff'd, 2010 WI 92, 328 Wisc. 2d 369, 787 N.W.2d 317. Since the Jones decision, and as of August 2012, two more state courts have ruled against warrantless GPS tracking. See State v. Adams, 725 S.E.2d 523, 527 (S.C. Ct. App. 2012) (finding that the installation of a tracking device on a vehicle constituted a search under Jones); State v. Zahn, 2012 SD 19, ¶¶ 18-19, 812 N.W.2d 490, 495-96 (invoking the Fourth Amendment to invalidate twenty-six days of warrantless GPS tracking, relying upon both Justice Scalia's majority opinion in Jones as well as Justice Alito's concurring opinion, which are summarized below at notes 57-66 and accompanying text).

^{6.} See United States v. Maynard, 615 F.3d 544 (D.C. Cir. 2010), cert. granted. sub nom. United States v. Jones, 131 S. Ct. 3064 (2011).

^{7.} The first opportunity was City of Ontario, Cal. v. Quon (Quon II), 130 S. Ct. 2619 (2010), which involved governmental monitoring of text messages on city-owned pagers issued to SWAT team members. Id. at 2625-26; see also Quon v. Arch Wireless Operating Co. (Quon I), 445 F. Supp. 2d 1116, 1124 (C.D. Cal. 2006) (referring to "city-owned pagers"), rev'd, Quon II, 130 S. Ct. 2619 (2010). In Quon II, the Court ruled narrowly, holding that the searches complied with the Fourth Amendment's reasonableness requirement. 130 S. Ct. at 2632-33. The Court emphasized that it had taken a cautious approach:

Jones did not disappoint: it has the potential to be the Supreme Court's most important Fourth Amendment decision since it decided Katz v. United States⁸ over four decades ago. Katz, which famously embraced a privacy model of the Fourth Amendment rather than the previously controlling property model,⁹ has dominated the search and seizure landscape since it was decided. But Katz's move to privacy has led to uncertainties and raised significant critiques that its privacy model extends insufficient protections against governmental searches.

Jones offered the Supreme Court the opportunity to address this Katz conundrum. Jones produced three different opinions, each with the potential to dramatically change the course of constitutional search and seizure law. The competing rationales are crucially important because they will influence Fourth Amendment jurisprudence generally, as well as Fourth Amendment surveillance jurisprudence specifically, including as applied to numerous existing, developing, and future technologies. Thus, Jones is vastly more important for the various Justices' reasoning than for its technically narrow holding.

Jones is a significant decision in part because much more was at stake than whether Fourth Amendment protections extend to the approximately 3,000 warrantless GPS monitoring devices that the federal government has used annually. 10 A primary concern was, and

Though the case touches issues of farreaching significance, the Court concludes it can be resolved by settled principles determining when a search is reasonable.

... The judiciary risks error by elaborating too fully on the Fourth Amendment implications of emerging technology before its role in society has become clear... Prudence counsels caution before the facts in the instant case are used to establish far-reaching premises that define the existence, and extent, of privacy expectations enjoyed by employees when using employer-provided communication devices.

Id. at 2624-29 (citations omitted).

- 8. 389 U.S. 347 (1967).
- 9. See id. at 351 (holding the "Fourth Amendment protects people, not places" and "[w]hat a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection").
- 10. See Jones Transcript, supra note 2, at 60 (responding to Justice Sotomayor's question of whether the United States had "any idea of how many GPS devices are being used by Federal Government agencies and State law enforcement officials," the United States responded: "The Federal Government, I can speak to, and it's in the low thousands annually"); Julia Angwin, FBI Turns Off Thousands of GPS Devices After Supreme Court Ruling, WALL St. J. Blog (Feb. 25, 2012, 3:36 PM), http://blogs.wsj.com/digits/2012/02/25/fbi-turns-off-thousands-of-gps-devices-after-supreme-court-ruling/ (covering the Big Brother in the 21st Century symposium held at the University of San Francisco

remains, the third-party doctrine, under which exposure of information to third parties, even in instances where there is little alternative, can obviate any privacy interest and thus eliminate Fourth Amendment protections.¹¹ Among existing (and likely also future) technologies, a great uncertainty exists as to whether the third-party doctrine will allow governments to compel production of user data—including location data—from third-party service providers without a warrant.¹² Technologies subject to the doctrine's reach include GPS devices installed in vehicles by either the owner¹³ or manufacturer,¹⁴ either voluntarily or through governmental mandate,¹⁵ as well as the increasingly ubiquitous GPS capabilities of

Law School in February 2012, and reporting that panelist Andrew Weissmann, FBI General Counsel, said that *Jones* "prompted the FBI to turn off about 3,000 GPS tracking devices that were in use"). After *Jones*, which has reportedly caused a "sea change" at the Department of Justice, the FBI reportedly has had to seek court orders to "obtain permission to turn the [GPS] devices on briefly—only in order to locate and retrieve them." *Angwin, supra*; see also Pete Yost, *FBI Chief Describes GPS Problem from Court Ruling*, SAN DIEGO UNION-TRIB. (Mar. 7, 2012), http://www.utsandiego.com/news/2012/mar/07/fbi-chief-describes-gps-problem-from-court-ruling/.

- 11. I discuss the third-party doctrine, its role in *Jones*, and *Jones*'s potential effect on the doctrine in Part II.B.
- 12. The government has available numerous statutorily authorized means to seek user data from third party service providers. See infra note 16; see also Ellen Nakashima, FBI Heads to Court More Often to Obtain Data on Personal Internet-Usage, WASH. POST, Oct. 26, 2011, at A6; Ryan Singel, U.S. Requests for Google User Data Spike 29 Percent in Six Months, WIRED (Oct. 25, 2011, 11:07 AM), http://www.wired.com/threatlevel/2011/10/google-data-requests.
- 13. The possibility of private vehicle owners subscribing to a GPS service is well known. Another permutation of this dynamic is when companies install GPS devices in their vehicles. See Brief of Elec. Privacy Info. Ctr. (EPIC) and Legal Scholars and Technical Experts as Amici Curiae Supporting Respondent at 25, United States v. Jones, 132 S. Ct. 945 (2012) (No. 10-1259), 2011 WL 4564007 at *25, available at http://epic.org/amicus/jones/EPIC_Jones_amicus_final.pdf (discussing and citing to accounts of GPS use by UPS, Roadway Express, and J.B. Hunt, which is "one of the nation's largest trucking lines").
- 14. General Motors's OnStar system, for example, is installed in millions of cars. The OnStar system uses a combination of GPS and cellular technology, and was recently the subject of an intense controversy over proposed revisions to its terms of service that would have authorized OnStar to continue collecting tracking data even after a user unsubscribed from the service. See John R. Quain, Changes to OnStar's Privacy Terms Rile Some Users, N.Y. TIMES WHEELS BLOG (Sept. 22, 2011, 6:00 AM), http://wheels.blogs.nytimes.com /2011/09/22/changes-to-onstars-privacy-terms-rile-some-users/; Jaikumar Vijayan, OnStar Reverses Course on Controversial GPS Tracking Plans, COMPUTERWORLD (Sept. 27, 2011, 6:03 PM), http://www.computerworld.com/s/article /9220337/OnStar_reverses_course_on_controversial_GPS_tracking_plans.
- 15. On the governmental mandate front, the Department of Transportation's Federal Motor Carrier Safety Administration is seeking to promulgate regulations requiring the installation by commercial motor carriers of electronic on-board recorders equipped with GPS capability. See Electronic On-Board Recorders and Hours of Service Supporting

smartphones, all of which involve a third party that provides the GPS service and collects the location data. A related concern is whether the third-party doctrine will allow governments to continue to engage in widespread location tracking through cellular tower triangulation, a surveillance technique that relies only upon the cellular network, independent of GPS.¹⁶

Documents, 77 Fed. Reg. 7562, 7562–63 (Feb. 13, 2012) (to be codified at 49 C.F.R. pts. 385, 390, 395). The purpose is to monitor compliance with hours-of-service rules. See 49 C.F.R. § 395.8 (2011). According to the Owner-Operator Independent Drivers Association, these regulations, as currently formulated, will "monitor[] the movements of four million... drivers; operating for five hundred thousand... motor carriers; using 3,637,000 vehicles, twenty four hours a day, seven days a week." Brief of Owner-Operator Indep. Drivers Ass'n, Inc., as Amicus Curiae Supporting Respondent at 2, United States v. Jones, 132 S. Ct. 945 (2012) (No. 10-1259), 2011 WL 4614423, at *2, available at http://www.americanbar.org/content/dam/aba/publishing/previewbriefs/Other_Brief_Upda tes/10-1259-respondent-amcu-ooida.authcheckdam.pdf.

16. See, e.g., Michael Isikoff, The Snitch in Your Pocket, NEWSWEEK, Mar. 1, 2010, at 40, 40-41 (recounting that Sprint Nextel's "manager of electronic surveillance" disclosed at a private Washington security conference in October 2009 that, to handle demand, Sprint had established a special website to automate its response to police requests for cellular telephone tracking data, which allows "law-enforcement agents [to] access the records from their desks"; the manager is quoted as saying that "[t]he tool has just really caught on fire with law enforcement" (internal quotation marks omitted)); Eric Lichtblau, Cell Carriers Called on More in Surveillance, N.Y. TIMES, July 9, 2012, at A1 (reporting that, in response to a Congressional inquiry, cellphone carriers submitted reports showing that in 2011 they responded to 1.3 million law enforcement requests for subscriber information); Eric Lichtblau, Police Are Using Phone Tracking as a Routine Tool, N.Y. TIMES, Apr. 1, 2012, at 1 (explaining that "[t]he practice has become big business for cellphone companies... with a handful of carriers marketing a catalog of 'surveillance fees' to police departments," but noting that police can now obtain their own equipment that allows independent tracking of cellular location data); Kim Zetter, Feds 'Pinged' Sprint GPS Data 8 Million Times Over a Year, WIRED (Dec. 1, 2009, 5:42 PM), http://www.wired.com/threatlevel/2009/12/gps-data/ ("Sprint Nextel provided enforcement agencies with customer location data more than 8 million times between September 2008 and October 2009, according to a company manager . . . ").

Cellular tracking is less precise than GPS tracking, but has the potential to be more pervasive given that it applies to every cellular telephone regardless of whether the cellular telephone has GPS capabilities. Though heavily divided on the issue, numerous courts have allowed warrantless location tracking using these techniques, though many of these cases involved the interpretation of numerous pieces of legislation, principally the Stored Communications Act ("SCA"), see 18 U.S.C. § 2703 (2006 & Supp. IV 2010 & Supp. 2012), rather than the Fourth Amendment's third-party doctrine. See In re Application of the U.S. for Historical Cell Site Data, 747 F. Supp. 2d 827, 829–30 & nn.5–6 (S.D. Tex. 2010) (collecting cases), acq. No. H-11-223 (S.D. Tex. Nov. 11, 2011) and appeal docketed, No. 11–20884 (5th Cir. Dec. 12, 2011); In re Application of the U.S. for an Order Directing a Provider of Elec. Commc'n Serv. to Disclose Records to the Gov't, 534 F. Supp. 2d 585, 599–600 & nn.39–42 (W.D. Pa. 2008) (collecting cases), vacated and remanded, 620 F.3d 304 (3d Cir. 2010). At least one federal circuit has allowed such tracking absent a warrant or probable cause showing under the Fourth Amendment. See In re Application of the U.S. for an Order Directing a Provider of Elec. Commc'n Serv. to

Though much litigation involving location tracking has focused upon statutory criteria, ¹⁷ the third-party doctrine plays a prominent role in the background of all these cases. If the Fourth Amendment is interpreted to impose procedural requirements before access to such location data can be gained—such as a search warrant—then less-demanding statutory authority will be invalid. Even if a warrant is not required, the government might only be able to avoid other Fourth Amendment strictures, including perhaps a probable cause requirement, if some constitutional exception applies. In all instances when a third party service provider actually holds the location data, the third-party doctrine is the most likely such exception.

Thus, whether the Jones Court addressed the third-party doctrine, and whether it took a broad or restrictive view of it, was

Disclose Records to the Gov't, 620 F.3d 304, 319 (3d Cir. 2010) (holding that, under the SCA, the government may obtain historical cellular location data from third party service providers by showing "specific and articulable facts" that establish reasonable grounds that a customer's data is "relevant and material to an ongoing criminal investigation"—a lesser burden than the Fourth Amendment's probable cause standard—but also that issuing judge has discretion to require a warrant premised upon a probable cause showing (internal quotation marks omitted)).

Numerous recent decisions have begun to require that the government comply with the Fourth Amendment's warrant and probable cause requirements to obtain such location data. See, e.g., In re Application of the U.S. for an Order Authorizing the Release of Historical Cell-Site Info., 809 F. Supp. 2d 113, 113-14 (E.D.N.Y. 2011) (denying, absent probable cause showing under the Fourth Amendment, the government's application under the SCA for two orders directing Verizon Wireless to disclose historical location data for a cellular telephone over a period of at least 113 days); In re Application of the U.S. for an Order Authorizing Disclosure of Location Info. of a Specified Wireless Tel., No. 10-2188-SKG, 2011 WL 3423370, at *48 (D. Md. Aug. 3, 2011) (rejecting, absent probable cause showing under Fourth Amendment, the government's application under the SCA and the All Writs Act to prospectively acquire location data, through use of cellular network and GPS technology, for a cellular telephone allegedly belonging to the subject of an arrest warrant); In re Application of the U.S. for Historical Cell Site Data, 747 F. Supp. 2d 827, 840 (S.D. Tex. 2010) (holding, in three criminal investigations, that the government's application for historical cellular location data spanning two months was subject to Fourth Amendment warrant and probable cause requirements). Several of these decisions were issued by district court judges who recently changed course after initially taking the position that the Fourth Amendment's warrant and probable cause standards did not apply to such location tracking, at least with regard to historical data. Cf. In re Application of the U.S. for an Order Authorizing the Use of Two Pen Register and Trap and Trace Devices, 632 F. Supp. 2d 202, 204-05 (E.D.N.Y. 2008) (granting the government's application under the Pen Register Statute and the SCA for prospective cellular location data based upon a showing of only reasonable suspicion after concluding that the Fourth Amendment was inapplicable); In re Application for Pen Register and Trap/Trace Device with Cell Site Location Authority, 396 F. Supp. 2d 747, 759 n.16 (S.D. Tex. 2005) (indicating that historical cellular location data "more comfortably fits" the SCA statutory regime that allows disclosure of such data on less than probable cause).

17. See supra note 16.

critically important. In a world where third parties—corporations like Apple, Microsoft, Google, Facebook, Amazon, telephone companies, retailers, and cable and satellite television companies—already hold huge amounts of data about us—such as location data, web browsing history, mapping requests, used Internet search terms, book interests, and banking and pharmaceutical information¹⁸—the stakes in *Jones* were tremendously high given that the government might be able to compel production of this data through a combination of statutory authority and the third-party doctrine. This is especially true in light of the certainty that third parties will only amass even more data about us, such as through existing and improved data mining tools and algorithms that make data collection an increasingly powerful identification tool.¹⁹

Jones was also important because it may potentially impact numerous other Fourth Amendment doctrines. Given the facts in Jones and Fourth Amendment precedent, offshoots of the third-party doctrine were potentially at issue, such as the assumption-of-risk

^{18.} See, e.g., Sorrell v. IMS Health Inc., 131 S. Ct. 2653 (2011) (holding Vermont statute, which prohibited pharmacies from sharing prescription information with pharmaceutical companies for data mining and marketing purposes, an unconstitutional restraint on commercial speech in violation of the First Amendment); CHARLES DUHIGG, THE POWER OF HABIT: WHY WE DO WHAT WE DO IN LIFE AND BUSINESS 182-97 & n.*, 209-10 (2012) (recounting how data compilation and analysis allowed the retailer Target to conclude that a teenager was pregnant before her father knew); DANIEL J. SOLOVE, THE DIGITAL PERSON 168-75 (2004) [hereinafter SOLOVE, DIGITAL PERSON]; Kashmir Hill, Facebook's Top Cop, FORBES, Mar. 12, 2012, at 96, 99 (recounting Facebook's efforts to protect its service, including its responses to law enforcement requests for user information, and noting that, according to Joe Sullivan, its chief security officer, "Facebook gets thousands of calls and e-mails from authorities each week"); see supra note 16 (regarding governmental efforts to engage in location tracking by obtaining information from cellular telephone companies, or by purchasing equipment that allows independent monitoring).

None of these concerns even address the privacy implications inherent in the government simply purchasing informational data from corporations. Cf. Paul Ohm, The Fourth Amendment in a World Without Privacy, 81 Miss. L.J. 1309 (2012) (predicting that, as private data collection increases, the government's direct surveillance will decrease as it relies upon the private sector to obtain similar information). Thanks to the third-party doctrine, these transactions appear to be exempt from Fourth Amendment protections because the person to whom the data pertains no longer has a protected privacy interest in it after having shared it with the corporation. Numerous documented instances exist of the government simply purchasing data from corporations. See SOLOVE, DIGITAL PERSON, supra, at 169–70.

^{19.} Cf. Paul Ohm, Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization, 57 UCLA L. REV. 1701, 1716–27 (2010) [hereinafter Ohm, Broken Promises] (explaining that anonymized data can often be easily re-identified, such as by comparing two sets of data and using a few pieces of identifying information like zip code, sex, and birth date).

doctrine, which suggests that voluntary disclosure in a private setting comes with the unavoidable risk of public disclosure, and the private-versus public-space distinction, which suggests that no protected privacy interest exists in public movements. Another issue was how the Fourth Amendment should respond to GPS technology. Precedent suggested that the answer might depend upon whether GPS was deemed to be merely sense-augmenting or -enhancing, on the one hand, or sense-replacing or a disruptive technology, on the other. Rather than ruling on these grounds, however, the D.C. Circuit controversially embraced mosaic theory, which extends privacy protection to aggregated data even if isolated parts of that data are not protected. In the end, *Jones* provided guidance on all these issues.

This Article will examine the *Jones* decision and its potential impact on Fourth Amendment jurisprudence in three parts. It starts by providing helpful background information, setting the stage for more in-depth discussions of *Jones* and its implications. Part I is devoted to the background information. Part I.A briefly sets forth the *Jones* facts, while Part I.B summarizes the federal court of appeals's ruling in *Jones*. Part I.C reviews the many Fourth Amendment doctrines, such as the third-party doctrine, that were implicated in *Jones* and made it such a potentially important decision. Part I.D summarizes the three separate opinions that were written in *Jones*.

Part II provides more substantive discussion about the *Jones* decision, its holding, and the many implications for future Fourth Amendment law that emanate from the competing opinions. Part II.A explores new guidance that *Jones* provides on several Fourth Amendment issues and is devoted to *Jones*'s resolution of a decades-old ambiguity about the respective roles of privacy and property as sources for Fourth Amendment protections. Part II.B examines the impact of the various *Jones* opinions on several interrelated Fourth Amendment doctrines: the third-party doctrine, assumption-of-risk doctrine, and the distinction between public versus private space. Part II.C is dedicated to the Fourth Amendment implications that *Jones* has for technology and the possibility that mosaic theory will be brought to bear in this context.

Part III identifies some new questions that *Jones* raises. Part III.A explains that *Jones* leaves unanswered the conditions under which GPS tracking will be constitutional under the Fourth Amendment. Part III.B focuses upon a new, offense-specific Fourth Amendment standard that Justice Alito proposed in his concurring opinion and that presumably has the support of the three other Justices who joined him. Part III.C discusses a few interesting

questions that result from the voting patterns in *Jones*. Part III.D explores the implications that *Jones* has for the general-public-use factor that the Court has previously emphasized in Fourth Amendment cases involving advanced technology. Part III.E examines the possibility that standing law will change as a result of *Jones*, and identifies third-party consent as a concept of increased importance. Part III.F highlights that, in his *Jones* concurrence, Justice Alito planted a seed for further restricting the exclusionary rule based upon whether a search warrant violation implicates the Fourth Amendment itself or some other legal source.

I. JONES BASICS

A. Jones Factual Background

Jones arose out of a 2004 narcotics investigation by the Joint Safe Streets Task Force of the Federal Bureau of Investigation and the District of Columbia Metropolitan Police Department.²⁰ During the investigation, the Task Force began focusing upon Jones, who owned and operated a nightclub in the District of Columbia.²¹ After engaging in numerous surveillance activities, the Task Force sought and obtained a warrant authorizing the installation of a GPS device onto the vehicle Jones primarily used (the vehicle was registered to his spouse).²²

The Task Force, however, failed to comply with the warrant. The warrant authorized installation of the GPS device within ten days and only within the District of Columbia, but the Task Force installed the device eleven days after the warrant issued and did so in Maryland.²³ Thus, the installation of the GPS device, as well as its subsequent monitoring for twenty-eight days anytime the vehicle was in motion,²⁴ were warrantless.

B. The D.C. Circuit's Ruling in Jones

The D.C. Circuit held that law enforcement engaged in an unconstitutional search under the Fourth Amendment when it

^{20.} United States v. Jones, 132 S. Ct. 945, 948 (2012); United States v. Maynard, 615 F.3d 544, 549 (D.C. Cir. 2010), cert. granted sub nom. United States v. Jones, 131 S. Ct. 3064 (2011).

^{21.} Jones, 132 S. Ct. at 948.

^{22.} Id.

^{23.} Id.

^{24.} Id.

conducted warrantless GPS tracking of Jones's vehicle for twenty-eight days.²⁵ Controversially, the D.C. Circuit latched onto the prolonged nature of the surveillance to invoke the "mosaic theory."²⁶ In a search and seizure context, mosaic theory posits that privacy interests, such as those protected under the Fourth Amendment, should be protected in a manner that guards against collections of small bits of information that individually may not be particularly revealing but when aggregated may reveal a great deal.²⁷ By doing so, the court avoided the precedent of *United States v. Knotts*,²⁸ a beeper surveillance case that strongly suggested that Jones enjoyed no privacy protections in his public movements because "[a] person traveling in an automobile on public thoroughfares has no reasonable expectation of privacy in his movements from one place to another."²⁹ The D.C. Circuit explained:

Here the police used the GPS device not to track Jones's "movements from one place to another," but rather to track Jones's movements 24 hours a day for 28 days as he moved among scores of places, thereby discovering the totality and pattern of his movements from place to place to place.

... [W]e hold the whole of a person's movements over the course of a month is not actually exposed to the public because the likelihood a stranger would observe all those movements is not just remote, it is essentially nil....

^{25.} Maynard, 615 F.3d at 555-67.

^{26.} Id. at 562; see also id. at 564 & n.* (distinguishing prior cases based upon limited versus prolonged GPS surveillance).

^{27.} In the legal realm, mosaic theory originated in the context of national security law and freedom of information requests. See id. at 562 (referring to mosaic theory "often [being] invoked by the Government in cases involving national security information"); see, e.g., Meredith Fuchs, Judging Secrets: The Role Courts Should Play in Preventing Unnecessary Secrecy, 58 ADMIN. L. REV. 131, 135 (2006); Christina E. Wells, CIA v. SIMS: Mosaic Theory and Government Attitude, 58 ADMIN. L. REV. 845 passim (2006); David E. Pozen, Note, The Mosaic Theory, National Security, and the Freedom of Information Act, 115 YALE L.J. 628 passim (2005). Though he does not use the term "mosaic theory," among law professors, Dan Solove has been an intellectual leader in extending the concept into privacy law in general and Fourth Amendment law in particular. See Daniel J. Solove, Nothing to Hide: The False Tradeoff Between Privacy and Security 102-10 (2011) (using term "digital dossiers"); id. at 182-98 (discussing data mining); Daniel J. Solove, Understanding Privacy 117-21 (2008) (using concept of "aggregation"); Solove, Digital Person, supra note 18, at 42-47, 168-85.

^{28. 460} U.S. 276 (1983).

^{29.} Id. at 281.

. . . .

The whole of one's movements over the course of a month is not constructively exposed to the public because, like a rap sheet, that whole reveals far more than the individual movements it comprises. The difference is not one of degree but of kind, for no single journey reveals the habits and patterns that mark the distinction between a day in the life and a way of life, nor the departure from a routine that, like the dog that did not bark in the Sherlock Holmes story, may reveal even more.³⁰

This mosaic approach is controversial because it suggests that some limited degree of warrantless GPS tracking would be constitutional under the Fourth Amendment, but too much is not. Where the dividing line is located, and how it is identified, remains a mystery. The United States sought en banc review, which the D.C. Circuit denied over a vigorous dissent that gamely challenged the mosaic theory.

The panel opinion seems to recognize that Jones had no reasonable expectation of privacy in any particular datum revealed by the GPS-augmented surveillance, but somehow acquired one through "the totality of Jones's movements over the course of a month." In the view of the panel, this is true "because that whole reveals more... than does the sum of its parts." While this may be true, it is not evident how it affects the reasonable expectation of privacy by Jones. The reasonable expectation of privacy as to a person's movements on the highway is... zero. The sum of an infinite number of zero-value parts is also zero.³¹

Unsurprisingly, the United States targeted the mosaic theory in seeking a reversal from the Supreme Court, arguing that it leaves law enforcement officers with too much uncertainty regarding allowable warrantless GPS tracking.³²

C. Jones and Fourth Amendment Theory

Jones was a perfect vehicle for the Court to clarify or even begin to reformulate Fourth Amendment law because it provided a clear record and clean procedural history. Furthermore, the case was posed

^{30.} Maynard, 615 F.3d at 558, 560-62 (citation omitted).

^{31.} United States v. Jones, 625 F.3d 766, 769 (D.C. Cir. 2010) (Sentelle, C.J., dissenting from denial of rehearing en banc) (citation omitted).

^{32.} See infra notes 260-61 and accompanying text.

at the uncomfortable intersection of numerous and competing Fourth Amendment doctrines. These included the privacy-versus-property distinction in Katz v. United States³³ and Oliver v. United States;³⁴ the public-space versus private-space distinction underlying the beeper cases, United States v. Knotts³⁵ as well as United States v. Karo;³⁶ the third-party doctrine of United States v. Miller³⁷ and Smith v. Maryland;³⁸ and the technology aspect of Kyllo v. United States³⁹ and other Fourth Amendment cases such as California v. Ciraolo⁴⁰ and Dow Chemical Co. v. United States.⁴¹

Though not necessarily having their origins in Katz, each of these Fourth Amendment doctrines can be linked back to it. This is one reason why Jones was such a compelling case: it provided an opportunity for an honest—and difficult—reckoning with the famously enigmatic Katz opinion, which assessed the constitutionality of warrantless electronic eavesdropping on a telephone booth.⁴² Did Katz mean to replace property with privacy, or merely to supplement property with privacy? Katz's emphasis on privacy served as a foundation for the later spatial emphasis in Fourth Amendment law, such as in California v. Greenwood,43 which held that the Fourth Amendment does not protect against warrantless searches and seizures of garbage left for collection in public areas outside a home's curtilage. 44 But are such spatial distinctions unfaithful to Katz? After all, they are difficult to reconcile with its language. 45 Katz's emphasis on privacy versus exposure helped lead to the third-party doctrine. Nevertheless, applying the third-party doctrine to the facts of Katz itself arguably raises some inconsistencies. If the third-party doctrine is correct, Katz arguably should have lost given that he knowingly

^{33. 389} U.S. 347, 351-52 (1967).

^{34. 466} U.S. 170, 183-84 (1984).

^{35. 460} U.S. 276, 281-82 (1983).

^{36. 468} U.S. 705, 716 (1984).

^{37. 425} U.S. 435, 443-44 (1976).

^{38. 442} U.S. 735, 743-44 (1979).

^{39. 533} U.S. 27, 34-37 (2001).

^{40. 476} U.S. 207, 213-15 (1986).

^{41. 476} U.S. 227, 238-39 (1986).

^{42.} See infra Parts II.A.1-2 for an in-depth discussion of the uncertainties resulting from Katz.

^{43. 486} U.S. 35 (1988).

^{44.} Id. at 37.

^{45.} See Katz v. United States, 389 U.S. 347, 351-52 (1967) ("What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection. But what he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected." (citations omitted)).

exposed his conversation to the telephone company, which could have accessed not just the telephone number he dialed but also the content of his conversation. Another question that emerged, therefore, was whether *Katz* was distinguishable due to the technological aspect of the case, and if so, to what extent. *Jones* offered the Supreme Court the opportunity to address—and perhaps resolve—all of these issues.

D. Jones in the Supreme Court: A Summary

Jones covered such a wide swathe of Fourth Amendment territory because the United States took the most aggressive position available to it before the Supreme Court. The United States argued that the Fourth Amendment places virtually no seizure limitations on its ability to surreptitiously install a GPS device onto a privately owned vehicle. Furthermore, it contended that it could engage in GPS searches at will by using the device to follow the vehicle's every movement in public spaces for as long as it wished, without a warrant or even any degree of suspicion. To justify this latter position, it argued that GPS tracking needs to remain a fully discretionary search tool so that it can be used to develop probable cause, and thus imposing a warrant, probable cause, or even reasonable suspicion requirement would be both unwise and infeasible.

^{46.} See Brief for the United States at 39-46, United States v. Jones, 132 S. Ct. 945 (2012) (No. 10-1259), 2011 WL 3561881, at *39-46 [hereinafter Brief for the United States], available at http://www.americanbar.org/content/dam/aba/publishing/previewbriefs/Other_Brief_Updates/10-1259_petitioner.authcheckdam.pdf. The United States accepted the Fourth Amendment seizure standard of a meaningful interference with a possessory interest, see Soldal v. Cook Cnty., 506 U.S. 56, 61 (1992), but, relying upon GPS tracking cases decided by federal circuits prior to Jones, argued that this standard was not met given that the GPS device installed on Jones's vehicle did not (1) impact his ability to drive it in any way, (2) divert power from the vehicle, (3) occupy space that could have been used for other purposes, or (4) impair the vehicle's value due to physical damage or alteration. Brief for the United States, supra, at 42-46.

^{47.} The United States's position was crystal clear at oral argument. Chief Justice Roberts described the United States's argument as, "it doesn't depend how much suspicion you have, it doesn't depend on how urgent it is. Your argument is you can do it, period. You don't have to give any reason. It doesn't have to be limited in any way, right?" The United States's reply was "That is correct, Mr. Chief Justice." Jones Transcript, supra note 2, at 15.

^{48.} At oral argument in Jones, the United States explained:

But I think it's very important to keep in mind that the—the principal use of this kind of surveillance is when the police have not yet acquired probable cause but have a situation that does call for monitoring. And I'd like to give an example.

The Supreme Court, having held oral argument in early November 2011, quickly issued the *Jones* opinion in January 2012.⁴⁹ The opinion is extraordinary because of the unanimity in the result coupled with the fractured reasoning justifying that result; its doctrinal implications; and also for its voting breakdown. While the Court was not as bold as it might have been, it was courageous in its willingness to depart from the path onto which precedent had set it. That path, so clearly seeded by *Katz* and marked out by the *Knotts* and *Karo* beeper cases, which suggested no recognized privacy interest in public movements,⁵⁰ must have left the United States feeling confident that it would prevail. After all, before the D.C. Circuit ruled against it in the *Jones* litigation, the United States had prevailed in every federal circuit—four in all—that had considered warrantless GPS tracking.⁵¹

This one-sided circuit split made it all the more stunning that the Supreme Court unanimously ruled against the United States in *Jones*. Commentators disagreed wildly about the breadth of the *Jones* ruling.⁵² However, it is a mistake to treat the decision as a narrow

If the police get an anonymous phone call that a bomb threat is going to be carried out at a mosque by people who work at a small company, the bomb threat on an anonymous call will not provide even reasonable suspicion under this Court's decision in Florida v. J.L.

But you can hardly expect the FBI to ignore a credible, detailed-sounding piece of information like that.

Id. at 17-18. A news report quoted FBI director Robert Mueller as similarly testifying, at a congressional hearing subsequent to *Jones*, that:

We have a number of people in the United States who we could not indict, there's not probable cause to indict them or to arrest them who present a threat of terrorism, articulated maybe up on the Internet, may have purchased a gun, but taken no particular steps to take a terrorist act. And [after *Jones*] we are stuck in the position of surveilling that person for a substantial period of time.

Yost, supra, note 10.

- 49. United States v. Jones, 132 S. Ct. 945, 945 (2012).
- 50. See infra notes 179-204 and accompanying text for a more detailed discussion of *Knotts* and *Karo* and how they potentially applied to *Jones*.
- 51. In every GPS tracking case to reach a federal circuit prior to *Jones*, the Fifth, Seventh, Eighth, and Ninth Circuits had all ruled in favor of the United States. *See supra* note 4.
- 52. See, e.g., Robert Barnes, Supreme Court Restricts Police GPS Tracking, WASH. POST, Jan. 24, 2012, at A1; Opinion, Court Rightly Requires Warrants for GPS Tracking of Suspects, DETROIT FREE PRESS, Jan. 27, 2012, at A16; Barry Friedman, Op-Ed., Privacy, Technology and Law, N.Y. TIMES, Jan. 29, 2012, at SR5; Editorial, Navigating a GPS Ruling, L.A. TIMES, Jan. 25, 2012, at A18; Lior J. Strahilevitz, Can the Police Keep Up with Jones?, CHI. TRIB., Jan. 27, 2012, at 23; Tom Goldstein, Reactions to Jones v. United

one. Similarly to *Katz*, the *Jones* opinion, a 5-4 decision in which Justice Scalia authored the majority opinion and Justice Alito wrote a concurring opinion on behalf of the four Justices who refused to join the majority, ⁵³ is dramatically more important for the reasoning of the various Justices than for its formal holding. The ruling was technically narrow: the government's installation of a GPS device onto a vehicle for the purpose of obtaining information constituted a "search" subject to Fourth Amendment protections. ⁵⁴ It provided no guidance, for example, about the conditions that would render such GPS surveillance constitutional. ⁵⁵

But to limit *Jones* to this narrow ruling would be a grave mistake that fails to appreciate *Jones*'s potential to be the most important Fourth Amendment decision since *Katz*. The ruling is considerably more complex than an ordinary 5–4 decision because, though Justice Sotomayor provided the crucial fifth vote for Justice Scalia's opinion, she wrote her own separate concurrence in which she indicated a great deal of approval for Justice Alito's competing approach, and a remarkable willingness to be even more aggressive in applying it.⁵⁶ Consequently, each of the three opinions produced in *Jones* holds the potential to be important in the future development of Fourth Amendment jurisprudence.

1. Justice Scalia's Majority Opinion

Justice Scalia, writing the five-person majority opinion on behalf of three other Justices (Chief Justice Roberts and Justices Kennedy and Thomas), and joined by Justice Sotomayor, held that the government's installation of the GPS device to track the vehicle's

States: The Government Fared Much Better than Everyone Realizes, SCOTUSBLOG (Jan. 23, 2012, 4:07 PM), http://www.scotusblog.com/2012/01/reactions-to-jones-v-united-states-the-government-fared-much-better-than-everyone-realizes/; Orin Kerr, What Jones Does Not Hold, VOLOKH CONSPIRACY (Jan. 23, 2012, 12:50 PM), http://www.volokh.com/2012/01/23/what-jones-does-not-hold/; Orin Kerr, Why United States v. Jones Is Subject to So Many Different Interpretations, VOLOKH CONSPIRACY (Jan. 23, 2012, 4:59 PM), http://www.volokh.com/2012/01/30/why-united-states-v-jones-is-subject-to-so-many-different-interpretations/ [hereinafter Kerr, Different Interpretations]; Paul Ohm, United States v. Jones is a Near-Optimal Result, FREEDOM TO TINKER (Jan. 23, 2012, 1:57 PM), https://freedom-to-tinker.com/blog/paul/united-states-v-jones-near-optimal-result/.

^{53.} Jones, 132 S. Ct. at 945; id. at 957 (Alito, J., concurring).

^{54.} Id. at 949 (majority opinion).

^{55.} See infra Part III.A. For further discussion of the majority's reasoning, see Part II.A.3.

^{56.} See Jones, 132 S. Ct. at 954, 956-57 (Sotomayor, J., concurring).

movements was a "search" covered by the Fourth Amendment.⁵⁷ Justice Scalia premised his majority ruling upon a property-centric Fourth Amendment, applying a historical analysis that depended primarily upon two factors: (1) the government's physical trespass in installing the GPS device onto Jones's vehicle, (2) for the purpose of collecting information.⁵⁸ This reasoning was revelatory for what it did to illuminate *Katz* and its Fourth Amendment treatment of the concepts of privacy and property, clarifying that both concepts remain valid Fourth Amendment touchstones and that they can operate independently.⁵⁹ Justice Scalia also appears to have intended to add a third, plain-text factor, namely that this new trespassory test applies only to items explicitly listed in the Fourth Amendment.⁶⁰ I will address this potential third factor in greater detail below.⁶¹

2. Justice Alito's Concurrence

Four Justices, led by Justice Alito, refused to join the majority opinion, characterizing as "[i]ronic[]," "unwise," and "highly artificial" Justice Scalia's choice "to decide this case based on 18th-century tort law" when at issue was GPS, a "21st-century surveillance technique." Justice Alito's concurring opinion, written on behalf of Justices Ginsburg, Breyer, and Kagan, instead preferred to rely upon Katz's privacy test, which requires both subjective and objective privacy expectations. These Justices would have ruled that, on the Jones facts, the government's prolonged GPS use violated an objective privacy expectation that society deemed reasonable, at least in the context of most offenses. (Apparently these Justices presumed that Jones had a subjective privacy expectation, an issue Justice Alito did not address.)

Since the point of the *Katz* test is to resolve when a Fourth Amendment "search" has occurred, 66 technically Justice Alito's rationale would go no further than Justice Scalia's in terms of result:

^{57.} Id. at 949 (majority opinion).

^{58.} See id. at 949-51.

^{59.} See infra text accompanying notes 113-14.

^{60.} See Jones, 132 S. Ct. at 950, 953 & n.8.

^{61.} See infra notes 132-67 and accompanying text.

^{62.} Jones, 132 S. Ct. at 957-58 (Alito, J., concurring).

^{63.} See id. at 957-60.

^{64.} See infra text accompanying notes 79, 82-86.

^{65.} Jones, 132 S. Ct. at 964 (Alito, J., concurring); see infra text accompanying note 205; Parts II.B-C. III.B.

^{66.} See infra text accompanying notes 85-86.

namely, the government's activity was a "search" subject to Fourth Amendment protections. The problematic governmental activity, however, would be different—only prolonged GPS tracking to investigate a common offense, completely excluding any consideration of the GPS device's installation.

3. Justice Sotomayor's Concurrence

Justice Sotomayor's concurring opinion, written only on her own behalf, is remarkably important due to its breadth. Not content to merely join Justice Scalia's majority opinion, she explained her reasons for doing so, emphasizing in particular her agreement with Justice Scalia's declaration that Katz added privacy to property so that they are both conceptual Fourth Amendment touchstones, and that therefore they both enjoy Fourth Amendment vitality.⁶⁷ Though Justice Sotomayor did not join Justice Alito's concurring opinion, depriving it of a fifth vote, she did signal some significant agreement with it and a ready willingness to provide a fifth vote (though she also had some significant areas of disagreement).68 She did not join Justice Alito's concurrence because "reaffirmation" and application of a property-centric trespass approach "suffice[d] to decide" Jones. 69 Nonetheless, she went out of her way to expound on Justice Alito's approach and the important role it could play, and explicitly indicated that she was ready to provide a crucial fifth vote for resolving similar

67. Justice Sotomayor wrote:

The Government usurped Jones' property for the purpose of conducting surveillance on him, thereby invading privacy interests long afforded, and undoubtedly entitled to, Fourth Amendment protection.

... As the majority's opinion makes clear ... Katz's reasonable-expectation-of-privacy test augmented, but did not displace or diminish, the common-law trespassory test that preceded it.... Justice Alito's approach, which discounts altogether the constitutional relevance of the Government's physical intrusion on Jones' Jeep, erodes that longstanding protection for privacy expectations inherent in items of property that people possess or control. By contrast, the trespassory test applied in the majority's opinion reflects an irreducible constitutional minimum: When the Government physically invades personal property to gather information, a search occurs.

Jones, 132 S. Ct. at 954-55 (Sotomayor, J., concurring) (citations omitted).

^{68.} See id.; infra II.B.2, III.C.2; notes 291-97 and accompanying text.

^{69.} Jones, 132 S. Ct. at 955 (Sotomayor, J., concurring).

Fourth Amendment claims through an objective expectation of privacy.⁷⁰

Moreover, Justice Sotomayor boldly took on what is so often Justice Thomas's recurring role as the Justice who declares an inclination to scuttle decades of precedent and make dramatic changes to the law. The argued for taking account of the special nature of GPS surveillance, focusing upon three of its distinct characteristics. First, she pointed to the amount of information about search targets that can be aggregated through GPS monitoring. Second, she mentioned GPS's data storage and mining implications. Third, and echoing Chief Justice Roberts's and Justice Alito's comments at oral argument, he noted GPS's "cheap" and "surreptitious[]" nature that "evades the ordinary checks that constrain abusive law enforcement practices: 'limited police resources and community hostility.' The Because all of these factors can "chill[] associational and expressive freedoms, he explained that she would consider whether objective expectations of privacy were

^{70.} Justice Sotomayor did so out of concern that Justice Scalia's trespass-centered approach was unduly narrow because "physical intrusion is now unnecessary to many forms of surveillance." *Id.* She further explained that:

As Justice Alito incisively observes, the same technological advances that have made possible nontrespassory surveillance techniques will also affect the *Katz* test by shaping the evolution of societal privacy expectations. Under that rubric, I agree with Justice Alito that, at the very least, "longer term GPS monitoring in investigations of most offenses impinges on expectations of privacy."

Id. (citations omitted).

^{71.} See, e.g., Safford Unified Sch. Dist. No. 1 v. Redding, 557 U.S. 364, 398–403 (2009) (Thomas, J., concurring and dissenting in part); Altria Grp., Inc. v. Good, 555 U.S. 70, 91–108 (2008) (Thomas, J., dissenting); Tenn. Secondary Sch. Athletic Ass'n v. Brentwood Acad., 551 U.S. 291, 306–07 (2007) (Thomas, J., concurring); Tennard v. Dretke, 542 U.S. 274, 294–95 (2004) (Thomas, J., dissenting); Indianapolis v. Edmond, 531 U.S. 32, 56 (2000) (Thomas, J., dissenting); see also Ralph A. Rossum, Clarence Thomas's Originalist Understanding of the Interstate, Negative, and Indian Commerce Clauses, 88 U. DET. MERCY L. REV. 769, 769 (2011) (asserting that Justice Thomas "has been unswayed by the claims of precedent . . . Thomas is unquestionably the Justice who is most willing . . . to call on his colleagues to join him in . . . getting back . . . to the original understanding of the Constitution"); Lincoln Caplan, Editorial, Clarence Thomas's Brand of Judicial Logic, N.Y. TIMES, Oct. 23, 2011, at SR10 (describing Justice Thomas's disregard of stare decisis).

^{72.} Jones, 132 S. Ct. at 955-56 (Sotomayor, J., concurring); see infra text accompanying note 296.

^{73.} Jones, 132 S. Ct. at 956 (Sotomayor, J., concurring).

^{74.} See infra text accompanying notes 266, 285.

^{75.} Jones, 132 S. Ct. at 956 (Sotomayor, J., concurring) (quoting Illinois v. Lidster, 540 U.S. 419, 426 (2004)).

^{76.} *Id*.

violated through governmental monitoring that enabled the discernment of what is often closely-held personal information.⁷⁷ "More fundamentally," she wrote, she was willing to "reconsider" a major component of currently existing Fourth Amendment law—the third-party doctrine.⁷⁸

Consequently, though Jones technically reached one binding, property-centric ruling supported by a majority of five Justices—the government's trespass in installing a GPS device on a vehicle for the purpose of obtaining information constituted a Fourth Amendment "search"—there are four votes for instead reaching the Fourth Amendment "search" ruling through a Katz-ian privacy approach.79 This latter view, which Justice Sotomayor indicated a willingness to support, 80 proposes that prolonged GPS monitoring for "most offenses" violates an objective expectation of privacy.⁸¹ Thus, while Justice Scalia obtained the five votes for establishing binding law that directly transform Fourth to jurisprudence, Justice Alito's alternate rationale also holds significant potential for doing so.

II. JONES AND THE KATZ CONUNDRUM: NEW ANSWERS TO OLD OUESTIONS

The difficult choices confronting the Supreme Court in *Jones* can all be traced back to *Katz*. This Part explains how *Jones* provided an opportunity for revisiting and better defining *Katz*, and then details how *Jones* responded to that opportunity. As this Part will make clear, the various *Jones* opinions have significant implications, either actual or potential, for numerous core Fourth Amendment doctrines.

A. Privacy and Property

1. Katz's Infamous Ambiguity

Katz famously moved search jurisprudence to a privacy model. 82 It did so by rejecting the property-centric Fourth Amendment model that had previously controlled, 83 and which the Court had applied in

^{77.} See infra text accompanying note 297.

^{78.} Jones, 132 S. Ct. at 957 (Sotomayor, J., concurring). I detail her thoughts on the third-party doctrine below. See infra text accompanying note 227.

^{79.} See Jones, 132 S. Ct. at 957-64 (Alito, J., concurring).

^{80.} See id. at 955 (Sotomayor, J., concurring).

^{81.} Id. at 964 (Alito, J., concurring).

^{82.} See Katz v. United States, 389 U.S. 347, 351-53 (1967).

^{83.} See id. at 353.

Olmstead v. United States. 84 Surprisingly, exactly how Katz did so is not entirely clear. These ambiguities came to the fore in Jones.

Take, for instance, Katz's search test, which has become a bedrock standard in modern Fourth Amendment jurisprudence. Katz is ubiquitously cited for its two-prong search standard, which is keyed to reasonable expectations of privacy (rather than to property): a Fourth Amendment search occurs only if the target had (1) an actual expectation of privacy (the subjective prong), (2) that society accepts as reasonable (the objective standard).85 But this two-prong standard never appears in the majority opinion. It is not even obliquely referenced. Instead, it has been derived from Justice Harlan's concurring opinion, in which—writing only for himself—he states, "My understanding of the rule that has emerged from prior decisions is that there is a twofold requirement, first that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as 'reasonable.' "86 In Katz, only Justice Black dissented, 87 while every other participating Justice joined Justice Stewart's majority opinion, 88 so Justice Harlan's concurring opinion cannot be deemed controlling in any technical sense because his vote was not needed to establish a majority.⁸⁹ This raises at least two interrelated issues: first, what exactly the majority meant by invoking and relying upon privacy, and second, whether Justice Harlan's two-prong search test is an accurate summation of the majority's position.

The Katz majority was clearly seeking a different Fourth Amendment search standard than what was available under the Olmstead property-centric view, writing that the "'premise that property interests control the right of the Government to search and

^{84. 277} U.S. 438 (1928), overruled in part by Katz v. United States, 389 U.S. 347 (1967).

^{85.} See, e.g., Kyllo v. United States, 533 U.S. 27, 33 (2001); California v. Ciraolo, 476 U.S. 207, 211 (1986); United States v. Walker, 771 F. Supp. 2d 803, 807 (W.D. Mich. 2011).

^{86.} Katz, 389 U.S. at 361 (Harlan, J., concurring).

^{87.} Id. at 364 (Black, J., dissenting).

^{88.} See Peter Winn, Katz and the Origins of the "Reasonable Expectation of Privacy" Test, 40 MCGEORGE L. REV. 1, 2-3 (2009). Justice Marshall did not participate in the case. Id. at 2.

^{89.} Cf. Marks v. United States, 430 U.S. 188, 193 (1977) ("When a fragmented Court decides a case and no single rationale explaining the result enjoys the assent of five Justices, the holding of the Court may be viewed as that position taken by those Members who concurred in the judgments on the narrowest grounds . . . " (citation omitted) (internal quotations marks omitted)).

seize has been discredited." "90 This explains why the *Katz* majority was (unfairly) critical of the property-based approach to the case that Katz had concentrated on in his written briefs, which considered whether a bugged telephone booth was a constitutionally protected area. 91

Instead of property, the *Katz* majority embraced the concept of Fourth Amendment privacy. The closest thing to a defining standard that the majority offered was its declaration that:

[T]he Fourth Amendment protects people, not places. What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection. But what he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected. 92

Exactly what this meant to the *Katz* majority, and how much guidance it provides, remains unclear. The majority proceeded to rule that Katz's privacy expectation had been violated because (1) "what he sought to exclude when he entered the booth was... the uninvited ear," thus the booth's visual transparency was immaterial; (2) he shut the telephone booth door behind him; (3) he "pa[id] the toll that permit[ted] him to place a call"; and (4) what Katz sought was a means of "private communication." Due to these factors, the "[g]overnment's activities in electronically listening to and recording the petitioner's words violated the privacy upon which he justifiably relied while using the telephone booth and thus constituted a 'search and seizure' within the meaning of the Fourth Amendment."

^{90.} Katz, 389 U.S. at 353 (quoting Warden v. Hayden, 387 U.S. 294, 304 (1967)).

^{91.} Id. at 348-51; see also id. at 351 (referring to "the misleading way the issues have been formulated"). The criticism was unfair because the parties had framed the issues in a manner consistent with prior Supreme Court precedent; the Court accepted this framing when it granted certiorari; and Katz's briefs actually had argued partly in privacy terms. Winn, supra note 88, at 4-5 & nn.25-27 (setting out the sequence of events that led to Katz Court's criticism); see also Harvey A. Schneider, Katz v. United States: The Untold Story, 40 McGeorge L. Rev. 13, 17-18 (2009) (providing first-hand account of evolution in legal reasoning from one of Katz's Supreme Court lawyers). At oral argument Katz's counsel bravely departed from the specifics of his written argument and essentially proposed the objective privacy standard the Court adopted in Katz, but this was not recognized in the opinion at least in part because then-law clerk Lawrence Tribe, who drafted the opinion on behalf of Justice Stewart, apparently did not listen to the oral argument. Schneider, supra, at 16-20; Winn, supra note 88, at 2-3, 6 & n.29, 10.

^{92.} Katz, 389 U.S. at 351 (citations omitted).

^{93.} Id. at 352.

^{94.} *Id*.

^{95.} Id.

^{96.} Id. at 353.

2. Katz and Silverman v. United States

If there was any doubt that *Katz* had distanced itself from a property-centric Fourth Amendment, such doubts seemed resolved in *Oliver v. United States*, 97 which explicitly rejected physical trespass as a basis for finding a Fourth Amendment violation. 98 *Oliver* based its ruling upon the textual principle, established in *Hester v. United States*, 99 that Fourth Amendment search proscriptions do not apply to open fields because such fields are not "persons, houses, papers, [or] effects." 100

What, then, should one make of Silverman v. United States, 101 which predates Katz and has never been overruled, but based its ruling on Olmstead's property-centric Fourth Amendment model? 102 In Silverman, the Supreme Court found a Fourth Amendment violation when police eavesdropped using a microphone that physically intruded—albeit barely—into a row house that the defendants were using for a gambling operation. 103 The Court faulted the "unauthorized physical encroachment within a constitutionally protected area" 104 because:

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. This Court has never held that a federal officer may without warrant and without consent *physically entrench* into a man's office or home, there secretly observe or listen, and relate at the man's subsequent criminal trial what was seen or heard.¹⁰⁵

^{97. 466} U.S. 170 (1984).

^{98.} Id. at 181, 182-84.

^{99. 265} U.S. 57 (1924) (holding that police may enter and search open fields without a warrant).

^{100.} U.S. CONST. amend. IV; Oliver, 466 U.S. at 176-77.

^{101. 365} U.S. 505 (1961).

^{102.} See id. at 511-12.

^{103.} *Id.* at 506–07, 509–10. Police used a "microphone with a spike about a foot long attached to it," inserting the spike "several inches" into a shared "party wall" between two row houses until the spike hit a heating duct, "thus converting [the defendants'] entire heating system into a conductor of sound." *Id.* at 506–07.

^{104.} Id. at 510.

^{105.} Id. at 511-12 (emphasis added) (citations omitted).

The Court denied that its ruling was based upon trespass as defined by local law, 106 but clearly the ruling was based upon a traditional view of common law trespass. 107

Perhaps Silverman is justified based on the same textual approach the Court applied in Hester and Oliver because Silverman involved surveillance on a house, with houses being at the core of Fourth Amendment protections, both conceptually and textually. But while that might justify Silverman, it does not explain Katz, which involved aural surveillance of a telephone booth. Neither oral conversations nor public telephone booths satisfy a Fourth Amendment textual analysis because, as with open fields, they are not "persons, houses, papers, [or] effects." 108

The Court's inconsistency in applying Fourth Amendment textualism is masking an uncertainty concerning whether the Olmstead-Silverman property-centric model retains vitality after Katz, which left the parties in Jones jockeying for position on the potentially dispositive issue of whether the installation of the GPS device, in and of itself, constituted a Fourth Amendment search. Did Katz mean to supplement property with privacy, or to supplant property with privacy? Jones argued supplementation, emphasizing that Silverman remains good law and its physical encroachment rule should be applied to render the warrantless installation of the GPS device unconstitutional. ¹⁰⁹ The United States argued that Katz supplanted property to such an extent that Silverman was no longer

^{106.} See id. at 512 (explaining that the "decision here does not turn upon the technicality of a trespass upon a party wall as a matter of local law. It is based upon the reality of an actual intrusion into a constitutionally protected area.").

^{107.} See, e.g., Renée McDonald Hutchins, Tied Up in Knotts? GPS Technology and the Fourth Amendment, 55 UCLA L. REV. 409, 423 (2007); Orin S. Kerr, The Fourth Amendment and New Technologies: Constitutional Myths and the Case for Caution, 102 MICH. L. REV. 801, 816 (2004); Ric Simmons, From Katz to Kyllo: A Blueprint for Adapting the Fourth Amendment to Twenty-First Century Technologies, 53 HASTINGS L.J. 1303, 1309 (2002); Sara M. Smyth, Searches of Computers and Computer Data at the United States Border: The Need for a New Framework Following United States v. Arnold, 2009 U. ILL. J.L. TECH. & POL'Y, 69, 85 (2009); Russell L. Weaver, The Fourth Amendment, Privacy and Advancing Technology, 80 Miss. L.J. 1131, 1140 (2011).

^{108.} U.S. CONST. amend. IV. This, of course, is a primary argument that Justice Black made in his *Katz* dissent. Katz v. United States, 389 U.S. 347, 364-67 (1967) (Black, J., dissenting). Justice Scalia has also criticized *Katz* on this ground. *See infra* note 166 and accompanying text. *But see infra* note 164 (noting that Justice Scalia has indicated that he does not believe there is any chance the Court will depart from *Katz*).

^{109.} Brief for Respondent at 19 & n.2, United States v. Jones, 132 S. Ct. 945 (2012) (No. 10-1259), 2011 WL 4479076, at *19, available at http://www.law.nyu.edu/ecm_dlv3/groups/public/@nyu_law_website__alumni/documents/d ocuments/ecm_pro_070386.pdf.

controlling, and instead the *Katz* standard—whether the installation violated a privacy interest upon which Jones reasonably relied—controlled.¹¹⁰

3. Justice Scalia's Resolution in *Jones*

Had Jones done nothing else, it would be a cornerstone Fourth Amendment opinion for conclusively resolving all this uncertainty. Justice Scalia's five-person majority opinion premised its ruling that a search covered by the Fourth Amendment had occurred upon a historically-based, property-centric trespass theory that focuses upon (1) the government's installation of the GPS device; (2) for the purpose of obtaining information. In establishing this new trespassory test, Jones provides binding precedent regarding Katz's property-versus-privacy ambiguity. Justice Scalia's majority opinion repeatedly emphasizes that Katz merely added privacy to the Fourth Amendment calculus, rather than replacing property. In clarifying this point, Justice Scalia writes as if there has been no ambiguity about it. 112 His opinion explains that:

Jones's Fourth Amendment rights do not rise or fall with the Katz [reasonable expectation of privacy] formulation.... [F] or most of our history the Fourth Amendment was understood to embody a particular concern for government trespass upon the areas... it enumerates. Katz did not repudiate that

^{110.} See Brief for the United States, supra note 46, at 46 n.6. To the extent that installation of the GPS device was analyzed as a seizure, the United States argued that the traditional Fourth Amendment seizure standard applied and was not satisfied. See supra note 46.

^{111.} See United States v. Jones, 132 S. Ct. 945, 948 (2012) ("We decide whether the attachment of a Global-Positioning-System (GPS) tracking device to an individual's vehicle, and subsequent use of that device to monitor the vehicle's movements on public streets, constitutes a search or seizure within the meaning of the Fourth Amendment."); id. at 949 ("We hold that the Government's installation of a GPS device on a target's vehicle, and its use of that device to monitor the vehicle's movements, constitutes a 'search.'") (footnote omitted); id. at 950 n.3 ("[O]ur task, at a minimum, is to decide whether the action in question would have constituted a 'search' within the original meaning of the Fourth Amendment. Where, as here, the Government obtains information by physically intruding on a constitutionally protected area, such a search has undoubtedly occurred."); id. at 951 n.5 ("Trespass alone does not qualify, but there must be conjoined with that what was present here: an attempt to find something or to obtain information."); id. ("A trespass on 'houses' or 'effects,' or a Katz invasion of privacy, is not alone a search unless it is done to obtain information; and the obtaining of information is not alone a search unless it is achieved by such a trespass or invasion of privacy.").

^{112.} In a post-Jones speech to the American Bar Association, he reportedly called the decision "pretty easy." Debra Cassens Weiss, Scalia Explains Stance on Abortion, GPS Ruling, A.B.A. J., Mar. 2012, at 59.

understanding....

... Katz... established that "property rights are not the sole measure of Fourth Amendment violations," but did not "snuf[f] out the previously recognized protection for property." 113

If this guidance were not clear enough, for good measure Justice Scalia added the crystal-clear statement that "the Katz reasonable-expectation-of-privacy test has been added to, not substituted for, the common-law trespassory test." In support, Justice Scalia cited two post-Katz cases, Alderman v. United States and Soldal v. Cook County, in which a property model was applied to the Fourth Amendment claims at issue. Though Justice Scalia insists that history and precedent readily lead to this conclusion, the four Justices led by Justice Alito did not think so, and I am not the only commentator to react with skepticism.

With Justice Sotomayor's fifth vote, Justice Scalia's new trespassory test, and his resolution of the Katz privacy-versus-

^{113.} Jones, 132 S. Ct. at 950-51 (footnotes omitted) (quoting Soldal v. Cook Cnty., 506 U.S. 56, 64 (1992)).

^{114.} Id. at 952.

^{115. 394} U.S. 165 (1969).

^{116. 506} U.S. 56 (1992).

^{117.} See id. at 61; Alderman, 394 U.S. at 176-80.

^{118.} See Jones, 132 S. Ct. at 959–60 (Alito, J., concurring) (claiming that Katz "finally did away with the old [trespass-based] approach," and explaining that under Katz's new privacy regime "'an actual trespass is neither necessary nor sufficient to establish a constitutional violation'") (quoting United States v. Karo, 468 U.S. 705, 713 (1984) (emphasis added)). One commentator has described these four Justices as having taken "the position that Katz had completely eviscerated the trespass doctrine." Shaun B. Spencer, GPS Monitoring Device Leads the Supreme Court to a Crossroads in Privacy Law, 46 NEW ENG. L. REV. ON REMAND 45, 57 (2012), http://www.nesl.edu//userfiles/file/LawReview/Vol46/SpencerFINAL.pdf.

^{119.} See, e.g., Caren Myers Morrison, The Drug Dealer, the Narc, and the Very Tiny Constable: Reflections on United States v. Jones, CAL. L. REV. CIRCUIT (Apr. 15, 2012, 3:45 PM), http://www.californialawreview.org/articles/the-drug-dealer-the-narc-and-the-very-tiny-constable-reflections-on-united-states-v-jones (characterizing as a "sleight of hand" that Justice Scalia "painted his new test not as an abrupt turn away from modern Fourth Amendment understandings but as the continuation of an uninterrupted strand of property-based jurisprudence"); id. ("Four decades of legal scholarship and jurisprudence... understood Katz as replacing a property-based view of Fourth Amendment rights with one based on privacy."); Kerr, Different Interpretations, supra note 52 ("Justice Scalia creates a new test for Fourth Amendment searches without being fully candid that he's doing something quite new.... Scalia writes his opinion as if a well-established trespass test existed that he is returning to, and that returning to it is some sort of obvious step. The disjunct between Scalia's doctrinal innovation and his apparent incredulity that anyone could find his opinion confusing makes for some very strange reading.").

property ambiguity, are now binding majority rulings. Justice Sotomayor was attracted enough to Justice Scalia's property-centric theory to join his opinion because his trespass approach "reflects an irreducible constitutional minimum: When the Government physically invades personal property to gather information, a search occurs." Moreover, she clearly agreed with Justice Scalia on his resolution of the *Katz* ambiguity, specifying in her concurring opinion that:

In *Katz*, this Court enlarged its then-prevailing focus on property rights by announcing that the reach of the Fourth Amendment does not "turn upon the presence or absence of a physical intrusion." As the majority's opinion makes clear, however, *Katz*'s reasonable-expectation-of-privacy test augmented, but did not displace or diminish, the common-law trespassory test that preceded it. 121

Jones thus resolves the Katz-Silverman ambiguity stemming from the privacy-versus-property dichotomy so that it is now clear and undeniable that both remain important and valid Fourth Amendment concepts, Katz for its use of privacy and Silverman for its use of property. Though Katz overruled Olmstead and its property-centric approach to Fourth Amendment surveillance law, a property-centric Fourth Amendment maintains its vitality. Given the Jones facts, this is clearly true in the surveillance arena, and given Justice Scalia's expansive language it is likely true as a general Fourth Amendment proposition as well. For example, his new trespassory test would have provided a stronger and certainly clearer rationale to justify the outcome in Arizona v. Hicks, 122 which is infamous for its ruling that the touching and slight movement of a stereo component to reveal its serial number violated a privacy barrier and thus constituted an unreasonable Fourth Amendment search. 123

On first blush, the first two portions of this new property-centric standard—(1) physical trespass, (2) for the purpose of obtaining information—seem easily applied, but further exposition will be necessary to confirm this point. For example, how convoluted might the trespass inquiry get? If historical analysis is relevant, that could

^{120.} Jones, 132 S. Ct. at 955 (Sotomayor, J., concurring).

^{121.} Id. (quoting Katz v. United States, 389 U.S. 347, 353 (1967)).

^{122. 480} U.S. 321 (1987).

^{123.} Id. at 324-27; cf. id. at 332-33 (Powell, J., dissenting) ("With all respect, this distinction between 'looking' at a suspicious object in plain view and 'moving' it even a few inches trivializes the Fourth Amendment.").

potentially introduce complications because the common law recognized numerous forms of trespass. 124 These complications open the prospect for relitigating a formerly discredited trespass argument—trespass ab initio—in cases involving undercover agents or informants, 125 though Justice Scalia signaled that such an argument should continue to be rejected. 126 Under contemporary law, should the standard account for state or local variations in trespass law, or between criminal and civil trespass? Given the straightforward mode of trespass analysis Justice Scalia applied in *Jones*, it is likely that he meant to incorporate a simple trespass standard—requiring only physical invasion without consent—so that police have a clear and simple standard with which to comply. But even such an approach does not necessarily provide sufficient clarity. For example, it is unclear whether Justice Scalia's new trespassory standard could resolve the pending Supreme Court case of Florida v. Jardines, 127 which raises a challenge to police incursion onto private property, without probable cause, to conduct a dog sniff at a home's front door. 128 Moreover, whether his new trespassory standard develops in the way he envisions as it is litigated in lower courts remains to be seen. Just how physical must the "physical" trespass be? Would disturbing the merest blade of grass count? 129 Would "electronic

^{124.} See 3 WILLIAM BLACKSTONE, COMMENTARIES *208-10, *213. Under the common law, an action in trespass vi et armis (by force and arms) could lie for "taking or detaining a man's goods," and also for "any misfeasance, or act of one man whereby another is injuriously treated or damnified" if "the act itself is directly and immediately injurious to the person or property of another, and therefore necessarily accompanied with some force." Id. at *208-09. However, "if the injury is only consequential," then a trespass on the case applied. Id. at *209. Trespass by breaking his close protected against "unwarranted entry on another's soil." Id. This category of trespass could apply to the home and protected curtilage, even if it did not apply to open fields, which currently do not enjoy Fourth Amendment protection, see infra notes 184-85 and accompanying text.

^{125.} Trespass ab initio (from the beginning) might become relevant in cases of undercover governmental agents or informants because it applies "where a man misdemeans himself, or makes an ill use of the authority which the law intrusts him." 3 BLACKSTONE, supra note 124, at *213. Prior to embracing a privacy model in Katz, the Supreme Court had rejected a trespass ab initio argument in a Fourth Amendment challenge to governmental eavesdropping using electronic equipment surreptitiously carried by an informant. On Lee v. United States, 343 U.S. 747, 752 (1952).

^{126.} Jones, 132 S. Ct. at 952 (discussing *United States v. Karo*, 468 U.S. 705 (1984), and citing *On Lee*, to suggest that Fourth Amendment challengers must accept containers and informants as they come because the government can rely upon previously obtained third-party consent).

^{127.} Jardines v. State, 73 So. 3d 34 (Fla. 2011), cert. granted, 132 S. Ct. 995 (2012).

^{128.} Id. at 35-36, 55-56.

^{129.} See Dougherty v. Stepp, 18 N.C. (1 Dev. & Bat.) 371, 372 (1835) ("[I]t is an elementary principle, that every unauthorised, and therefore unlawful entry, into the close

trespassing" count, as in the case of unauthorized access to hard drives, networks, or websites? Some courts have suggested that it could, with the trespass being based upon the transmission or disruption of electrons. Could a device that emits penetrative radiation satisfy the physical invasion factor? 131

With regard to Justice Scalia's potential third, plain-text factor namely, that his new trespassory test applies only to Fourth Amendment enumerated items¹³²—there is room to debate its existence, its endurance, and its legitimacy. One question that arises in connection with this factor is why Justice Scalia identified it at all. The only answer Justice Scalia suggests is that it is a necessary component so that his new trespassory test does not conflict with precedent. Justice Alito's concurring opinion criticized Justice Scalia for adopting a property-centric approach that is unfaithful to Fourth Amendment precedent, citing the Oliver and Hester open-field cases as examples that deny Fourth Amendment protections despite (1) property rights having been infringed through trespass, (2) for the purpose of gaining information (the two primary factors Justice Scalia emphasized in his Jones majority opinion). 133 This is where Justice Scalia's third, plain-text factor comes in. In response to Justice Alito's critique, Justice Scalia simply asserted that open fields fail a plain-text approach: "Quite simply, an open field, unlike the curtilage of a home, is not one of those protected areas enumerated in the Fourth Amendment. The Government's physical intrusion on such an area unlike its intrusion on the 'effect' at issue here—is of no Fourth Amendment significance."134 This resolution was analytically

of another, is a trespass. From every such entry against the will of the possessor, the law infers some damage; if nothing more, the treading down the grass or the herbage").

^{130.} Justice Alito suggested the same question in his concurrence. See Jones, 132 S. Ct. at 962 (Alito, J., concurring). As he pointed out, some courts have embraced a trespass to chattels or trespass to personal property theory in these contexts, such as with regard to spam email and software robots that automatically download information. See, e.g., eBay, Inc. v. Bidder's Edge, Inc., 100 F. Supp. 2d 1058, 1069-72 (N.D. Cal. 2000); CompuServe, Inc. v. Cyber Promotions, Inc., 962 F. Supp. 1015, 1021, 1024, 1027 (S.D. Ohio 1997); Thrifty-Tel, Inc. v. Bezenek, 54 Cal. Rptr. 2d 468, 473 & n.6 (1996).

^{131.} For example, one company sells a vehicle-based mobile X-ray backscatter device, akin to the new detailed imaging devices used in airports, and markets it by showing the vehicle moving through urban streets and parking lots, where it can scan everything around it while producing detailed X-ray images of building, car, truck, and bus interiors. See "ZBV" - Z Backscatter Van, YOUTUBE (Sept. 12, 2010) http://www.youtube.com/watch?v=iABPKd0vFxQ.

^{132.} See infra notes 134-136 and accompanying text.

^{133.} Jones, 132 S. Ct. at 958-59 (Alito, J., concurring).

^{134.} Id. at 953 (Scalia, J., majority opinion) (footnote omitted) (citations omitted).

unsatisfying, and thus casts doubt on the plain-text factor's endurance and legitimacy, as I explain below.

On the endurance front, Justice Scalia never pointedly identified his plain-text factor anywhere in the body of his majority opinion, apart from two quick, oblique references. 135 Justice Scalia explicitly identified this plain-text factor only in a footnote appended to the immediately preceding quotation above, in which he explained that "our theory is not that the Fourth Amendment is concerned with 'any technical trespass that led to the gathering of evidence.' The Fourth Amendment protects against trespassory searches only with regard to those items ('persons, houses, papers, and effects') that it enumerates."136 Compared with the two primary factors of Justice Scalia's new property-centric theory—a physical invasion amounting to trespass, for the purpose of obtaining information—which prominently appear no less than twice in the body of the majority opinion as well as three times in two footnotes¹³⁷—amounting to an announcement via repeated shouting—the third, plain-text factor is voiced in a whisper. Nonetheless, numerous commentators have interpreted Justice Scalia as establishing a three-part test that includes this plain text factor. 138 However, given the care with which one must read the majority opinion to identify this third, plain-text factor, there is reason to doubt its staying power. It can easily be overlooked even after a careful reading of the opinion, particularly given that it seems to appear as an appended afterthought in order to reconcile Oliver and Hester.

This provenance of the third, plain-text factor also calls into question its legitimacy because it is not apparent why the new *Jones* trespassory standard should be limited to enumerated Fourth Amendment items. This is not a small issue because the enumeration factor, if it has legs, could have substantive impacts. The enumeration standard would extend Fourth Amendment trespassory protection in a *Silverman*-type of situation because of the trespass into a house, ¹³⁹ but presumably not in a *Katz*-ian situation or even if a *Silverman*-type search occurred at a workplace because, respectively, a telephone booth is not encompassed within the Fourth Amendment's listed

^{135.} Id. at 950, 953 (twice using the word "enumerate[]").

^{136.} Id. at 953 n.8 (internal citation to Justice Alito's concurring opinion omitted).

^{137.} See supra note 111.

^{138.} See, e.g., Morrison, supra note 119; Spencer, supra note 118, at 56.

^{139.} See supra notes 101-07 and accompanying text.

items, 140 and neither is the workplace. It could impact law enforcement's use of warrantless and suspicionless garbage pulls, which the Court upheld in California v. Greenwood. 141 For instance, if garbage were left at the curb in a covered trash can, lifting the lid might now constitute a physical trespass on a protected property interest in the can, with the can or lid constituting a Fourth Amendment "effect." But if the garbage were left at the curb in trash bags, Greenwood would presumably continue to control because no protected property interest would apparently exist given that the bags themselves are intended to be carted off along with the garbage, and thus the bags are not Fourth Amendment "effects." In all these scenarios, the governmental conduct could be substantively indistinguishable and be similarly objectionable, and the Fourth Amendment interests at issue could be similar. Yet different results could be reached through application of the enumeration factor. It is far from clear that different results should be reached in these examples.

It is admittedly an answer to explain that the differing outcomes result from the necessity of including an enumeration factor in order to reconcile Jones with Oliver and Hester, but an answer is not equivalent to a substantively justified answer. Perhaps the enumeration factor is historically justified, at least in Justice Scalia's eyes, but this is far from clear, and certainly enumeration theory is a contentious means upon which to delineate Fourth Amendment protections. There is, for example, a debate about whether the Framers would have considered "ships" to be "effects" subject to Fourth Amendment protections. This debate could influence whether vehicles are "effects"—a position that Justice Scalia accepts age that Carroll v. United States extended such

^{140.} This is a point Justice Scalia has previously gone out of his way to emphasize. See infra text accompanying note 166.

^{141. 486} U.S. 35 (1988).

^{142.} Compare Fabio Arcila, Jr., The Framers' Search Power: The Misunderstood Statutory History of Suspicion & Probable Cause, 50 B.C. L. REV. 363, 394-97 & nn.156, 162-63, 409-10 & nn.228-29 (2009) (reviewing numerous regulatory civil search regimes in which the Framers extended, through statute, a probable cause immunity standard to ships, and arguing that this is evidence of the Framers' Fourth Amendment intentions), with Thomas Y. Davies, Recovering the Original Fourth Amendment, 98 MICH. L. REV. 547, 603-08 (1999) (contending that the Framers did not intend the Fourth Amendment to cover ship searches, especially in the context of regulatory civil searches).

^{143.} See United States v. Jones, 132 S. Ct. 945, 949 (2012).

^{144. 267} U.S. 132 (1925).

treatment by comparing vehicles to ships.¹⁴⁵ If *Carroll* was wrong about whether ships were historically treated as "effects," then arguably it was wrong in extending that treatment to vehicles. Ceasing to extend such treatment would result in a Fourth Amendment revolution. If vehicles are not "effects," and enumeration theory is strictly applied, then the large body of cases in which the Fourth Amendment has been applied to vehicles¹⁴⁶ would be thrown into disarray.

33

If enumeration theory is historically justified, does its codification in *Jones* plant the seeds for limiting, weakening, or ultimately ending *Katz*'s privacy model, which cannot be reconciled with it?¹⁴⁷ Justice Scalia might respond that the issue is immaterial given that Fourth Amendment protections can always be claimed under *Katz*'s alternative privacy approach. But this response has at least two problems. First, *Katz*-ian privacy protections do not always exist, as in the *Greenwood* example.¹⁴⁸ Second, the law should work toward coherence, and it is far from clear that Justice Scalia's enumeration factor ultimately promotes it.

Justice Scalia would have done better to directly take on *Hester* and *Oliver*. *Oliver* relied heavily upon *Hester*, but *Hester*'s open field rule is of questionable legitimacy because it relied upon Blackstone's *Commentaries* for the proposition that the law has long distinguished between the home and open fields. ¹⁴⁹ A significant weakness in this analysis is that the portions of Blackstone's *Commentaries* relied

^{145.} Id. at 153.

^{146.} See, e.g., Arizona v. Gant, 556 U.S. 332, 343 (2009); California v. Acevedo, 500 U.S. 565, 574-76 (1991); California v. Carney, 471 U.S. 386, 390-94 (1985).

^{147.} The Court has sometimes tried to reconcile Katz with plain-text analysis, but not convincingly. See infra text accompanying notes 162-63. Justice Scalia does not believe there is any chance the Court will depart from Katz, see infra note 164, but he could certainly be wrong, especially given the artificiality of the all-or-nothing Katz privacy model. See Sherry F. Colb, What Is a Search? Two Conceptual Flaws in Fourth Amendment Doctrine and Some Hints of a Remedy, 55 STAN. L. REV. 119, 121-24 (2002); id. at 123 (arguing that "[t]here are degrees of privacy and, accordingly, degrees of exposure, and one might choose to forfeit some of her freedom from exposure without thereby forfeiting all of it"). Just as did the GPS tracking at issue in Jones, future technological advances will only continue to put pressure on this Katz-ian privacy approach, and particularly on its conception of the third-party doctrine.

^{148.} See supra text accompanying notes 43-44, 141.

^{149.} Hester v. United States, 265 U.S. 57, 59 (1924) ("[T]he special protection accorded by the Fourth Amendment to the people in their 'persons, houses, papers, and effects,' is not extended to the open fields. The distinction between the latter and the house is as old as the common law." (citing 4 BLACKSTONE, supra note 124, at *223, *225, *226)).

upon all relate to burglary law, 150 which provides an imprecise touchstone for Fourth Amendment rights.

From a historical perspective (which Justice Scalia embraces, including in the Fourth Amendment context¹⁵¹), trespass law is the most appropriate touchstone¹⁵² (as Justice Scalia himself has recognized¹⁵³), and in *Hester* it was accepted that the revenue officers committed trespass, and there is no doubt that the state narcotics officers in *Oliver* did so.¹⁵⁴ Thus, a better, more coherent resolution of those cases would have been to acknowledge that the physical trespass constituted a Fourth Amendment violation in each case, though a combination of plain view doctrine and hot pursuit or exigency could still justify the *Hester* outcome,¹⁵⁵ leaving only *Oliver* to be overruled. Importantly, this approach would reconcile *Hester*, *Oliver*, and *Jones* in terms of clarifying that a physical trespass to gain information results in a Fourth Amendment violation. All of this would have the benefit of bringing greater coherence to Fourth Amendment jurisprudence.¹⁵⁶ Significantly, this approach would still

^{150.} They explain, for example, how the home-as-castle enjoys greater protections from burglary than a distant barn or warehouse. Blackstone's *Commentaries* in turn relied upon similar burglary passages from Hale's *Pleas of the Crown* and Hawkins's *Pleas of the Crown*. 4 BLACKSTONE, *supra* note 124, at *225.

^{151.} See, e.g., Virginia v. Moore, 553 U.S. 164, 168 (2008). On behalf of the majority, Justice Scalia wrote that "[i]n determining whether a search or seizure is unreasonable, we begin with history. We look to the statutes and common law of the founding era to determine the norms that the Fourth Amendment was meant to preserve." *Id.*

^{152.} See Fabio Arcila, Jr., In the Trenches: Searches and the Misunderstood Common-Law History of Suspicion and Probable Cause, 10 U. Pa. J. Const. L. 1, 5-6 (2007) ("During [the Framers' era], Fourth Amendment claims as we know them today did not exist. For nearly a century after the Constitution was adopted there was no constitutional search and seizure jurisprudence. Instead, search and seizure claims were litigated through common law trespass or civil law forfeiture." (footnote omitted)); id. at 49-50 & n.181.

^{153.} See Georgia v. Randolph, 547 U.S. 103, 143 (2006) (Scalia, J., dissenting) ("From the date of its ratification until well into the 20th century, violation of the [Fourth] Amendment was tied to common-law trespass.").

Amendment was tied to common-law trespass.").

154. See Oliver v. United States, 466 U.S. 170, 173 (1984) (describing that officers crossed onto private property after bypassing a locked gate and while ignoring a "No Trespassing" sign); Hester, 265 U.S. at 58 (recounting, in this Prohibition-era case, that officers entered what they "supposed" was Hester's father's land in pursuit of suspects after witnessing from "fifty to one hundred yards away" the exchange of "moonshine whiskey").

^{155.} See Morgan Cloud, The Fourth Amendment During the Lochner Era: Privacy, Property, and Liberty in Constitutional Theory, 48 STAN. L. REV. 555, 591 n.170 (1996); Schneider, supra note 91, at 22.

^{156.} It could be argued that, to the contrary, this approach introduces greater incoherence because it is anti-textualist. This argument focuses upon the *Hester* and *Oliver* arguments that open fields are not "persons, houses, papers, and effects." See Oliver, 466 U.S. at 176-77 & n.7 (explaining that the Framers replaced "property" with "effects" in

allow nontrespassory, plain-view surveillance of open fields, thus not threatening or undermining cases such as *California v. Ciraolo* 157 or *Dow Chemical Co. v. United States*. 158

The enumeration standard also suffers due to its origin in plaintext analysis. Though undoubtedly such analysis often has value, and though Justice Scalia favors it in part because of the clarity it promises. 159 that promise is often unfulfilled, 160 and this problem might arise in this context as well. For example, though Justice Scalia has pointedly critiqued Katz for departing from a plain text approach, 161 other Justices have claimed that Katz can be reconciled with a plain text analysis, reasoning that "Katz' 'reasonable expectation of privacy' standard did not sever Fourth Amendment doctrine from the Amendment's language. Katz itself construed the Amendment's protection of the person against unreasonable searches to encompass electronic eavesdropping of telephone conversations sought to be kept private."162 These Justices described Katz unconvincingly—as demonstrating that "the Court fairly may respect the constraints of the Constitution's language without wedding itself to an unreasoning literalism." 163 Thus, it is debatable whether the plain text nature of this third enumeration factor is justified even on its own terms.

the Fourth Amendment's final language, and contending that "[t]he Framers would have understood the term 'effects' to be limited to personal, rather than real, property"). A formalistic plain-text approach to the Fourth Amendment comes with its own problems. See infra notes 159-67 and accompanying text.

^{157. 476} U.S. 207 (1986) (rejecting Fourth Amendment challenge when police used a 35 mm camera to take photos during warrantless plane flyover at 1,000 feet).

^{158. 476} U.S. 227 (1986) (ruling that the Fourth Amendment was not violated when EPA agents photographed 2,000 acre outdoor industrial complex from altitudes of 12,000, 13,000, and 1,200 feet with a "standard floor-mounted, precision aerial mapping camera").

^{159.} This promised clarity comes from focusing upon words themselves, as opposed to some other (in his view invariably inferior) measure such as legislative intent. See Antonin Scalia, Common-Law Courts in a Civil-Law System: The Role of United States Federal Courts in Interpreting the Constitution and Laws, in A MATTER OF INTERPRETATION: FEDERAL COURTS AND THE LAW 3, 16–37 (Amy Gutmann ed., 1997); see also Peter J. Smith, Textualism and Jurisdiction, 108 COLUM. L. REV. 1883, 1887 & n.14, 1899 (2008) (describing Justice Scalia as "the leading modern proponent of textualism").

^{160.} See Smith, supra note 159, at 1903-04 & nn.92-93 (noting critiques of textualism); id. at 1923-31 (critiquing textualist promise in context of jurisdictional analysis).

^{161.} See infra text accompanying note 166.

^{162.} Oliver v. United States, 466 U.S. 170, 176 n.6 (1984).

^{163.} Id.

Moreover, though Justice Scalia restrained himself in *Jones* by not launching a direct attack on *Katz*, ¹⁶⁴ it is unlikely that his preferred plain-text approach would bring greater rationality to the Fourth Amendment. He is no fan of the presumptive warrant rule, having expressed dissatisfaction with resulting search distinctions that have left the Court having to assess "when a search is not a search." ¹⁶⁵ He disapproves of *Katz* as ahistorical and because "the outside of a telephone booth" is not "a location... within the catalog ('persons, houses, papers, and effects') that the Fourth Amendment protects against unreasonable searches." ¹⁶⁶ But, on a coherence scale, his preferred plain-text approach would not necessarily be an improvement because it also requires the fiction that some searches are not searches, which to his credit he acknowledged in *Jones*. ¹⁶⁷

Finally, it is worthwhile to push back against a highly disputable point that Justice Scalia floated in *Jones*. Justice Scalia apparently believes that the Supreme Court has only used *Katz*-ian privacy to expand Fourth Amendment protections, never to reduce them. ¹⁶⁸ This is news to most Fourth Amendment commentators. ¹⁶⁹ Cases in

^{164.} During oral argument in *Jones*, Justice Scalia indicated that he is prepared to live with *Katz* rather than fight an uphill battle to overrule it:

Katz established the new criterion, which is, is there an invasion of privacy? Does—are you obtaining information that a person had a reasonable expectation to be kept private? I think that was wrong. I don't think that was the original meaning of the Fourth Amendment. But nonetheless it's been around for so long, we are not going to overrule that.

See Jones Transcript, supra note 2, at 6.

^{165.} Kyllo v. United States, 533 U.S. 27, 32 (2001). For more thoughts on the presumptive warrant rule, see Fabio Arcila, Jr., *The Death of Suspicion*, 51 WM. & MARY L. REV. 1275, 1280–93 (2010) [hereinafter Arcila, *Death of Suspicion*].

^{166.} Kyllo, 533 U.S. at 32.

^{167.} See United States v. Jones, 132 S. Ct. 945, 953 n.8 ("The trespass that occurred in Oliver may properly be understood as a 'search,' but not one 'in the constitutional sense.' " (quoting U.S. CONST. amend. IV and Oliver, 466 U.S. at 183)).

^{168.} See id. at 951 ("Katz did not narrow the Fourth Amendment's scope." (footnote omitted)); Jones Transcript, supra note 2, at 6-7 ("[I]t is one thing to add [the Katz] privacy concept to the Fourth Amendment as it originally existed, and it is quite something else to use that concept to narrow the Fourth Amendment from what it originally meant."); see also id. at 8.

^{169.} See Thomas K. Clancy, What Does the Fourth Amendment Protect: Property, Privacy, or Security?, 33 WAKE FOREST L. REV. 307, 330–31 (1998) (explaining that early post-Katz cases "often showed signs that privacy would be a vital source of protection of individual interests.... However, as the composition of the Court changed, those early indications gave way to a view that used privacy analysis... to reduce the scope of the amendment's protections."); id. at 339 n.234 (citing many such commentators); id. at 340 ("[A] liberal Court substituted privacy in lieu of property analysis to expand protected

which the Court has invoked privacy to reduce or avoid Fourth Amendment protections, where these outcomes are in tension with a property model of the Fourth Amendment or its textual protection of an enumerated item, are easy to find. Future Supreme Court litigants aiming for Justice Scalia's vote would be advised to account for his rather odd, idiosyncratic take on this post-*Katz*-ian view of Fourth Amendment jurisprudence.

B. Privacy, Third-Party/Assumption-of-Risk Doctrines, and Public Space

Katz's move to a privacy model of the Fourth Amendment led to the development of the third-party doctrine.¹⁷¹ Primary examples of the third-party doctrine are Smith v. Maryland, ¹⁷² which held that

interests, [while] a conservative Court has employed privacy analysis as a vehicle to restrict Fourth Amendment protections."); Colb, *supra* note 147, at 120–21 & n.6 (citing several such commentators).

170. See, e.g., United States v. Santana, 427 U.S. 38, 42 (1976) (rejecting Fourth Amendment claim to protection when standing in a home's threshold because, "[w]hile it may be true that under the common law of property the threshold of one's dwelling is 'private[]' . . . it is nonetheless clear that . . . Santana was in a 'public' place. She was not in an area where she had any expectation of privacy."); Couch v. United States, 409 U.S. 322, 335-36 (1973) (rejecting Fourth Amendment protections for personal financial records provided to an accountant despite that they certainly qualified as either "papers" or "effects"); Wyman v. James, 400 U.S. 309, 317-24 (1971) (rejecting Fourth Amendment protections for "houses" in the context of suspicionless welfare home inspections). Though, as Justice Scalia himself has asserted, "a vehicle is an 'effect,' " Jones, 132 S. Ct. at 949, the Court has repeatedly applied privacy concepts to reduce the level of Fourth Amendment protections that apply to vehicles, even when the vehicle is a motor home akin to a house. See California v. Carney, 471 U.S. 386, 390-95 (1985). Similarly, the Court has repeatedly invoked privacy expectations to uphold even physically intrusive suspicionless drug searches of adults and minors despite the Fourth Amendment's explicit protection for "persons." See, e.g., Board of Educ. of Indep. Sch. Dist. No. 92 v. Earls, 536 U.S. 822, 830 (2002); Vernonia Sch. Dist. 47J v. Acton, 515 U.S. 646, 660 (1995); Nat'l Treasury Emps. Union v. Von Raab, 489 U.S. 656, 677 (1989); Skinner v. Ry. Labor Execs.' Ass'n, 489 U.S. 602, 633 (1989).

171. For a very brief description of the third-party doctrine, see supra text accompanying note 11. For a defense of the third-party doctrine, see Orin S. Kerr, The Case for the Third-Party Doctrine, 107 MICH. L. REV. 561 (2009). Professor Kerr's article resulted in a series of responses. See Richard A. Epstein, Privacy and the Third Hand: Lessons from the Common Law of Reasonable Expectations, 24 BERKELEY TECH. L.J. 1199 (2009); Erin Murphy, The Case Against the Case for Third-Party Doctrine: A Response to Epstein and Kerr, 24 BERKELEY TECH. L.J. 1239 (2009); see also Orin S. Kerr, Defending the Third-Party Doctrine: A Response to Epstein and Murphy, 24 BERKELEY TECH. L.J. 1229 (2009). For a suggestion of how to approach the third-party doctrine in light of advancing technology, see Katherine J. Strandburg, Home, Home on the Web and Other Fourth Amendment Implications of Technosocial Change, 70 MD. L. REV. 614 (2011).

172. 442 U.S. 735 (1979).

there is no Fourth Amendment privacy interest in telephone numbers dialed from one's home because the telephone company keeps records of those numbers, ¹⁷³ and *United States v. Miller*, ¹⁷⁴ which held that no such privacy interest exists in one's banking records because the bank holds them. ¹⁷⁵ The third-party doctrine is closely related to the Fourth Amendment assumption-of-risk doctrine, under which privacy interests in information can be lost when voluntarily shared with a third party because one assumes the risk that the third party will disclose the information. ¹⁷⁶ The assumption-of-risk doctrine is particularly prevalent in the context of informants ¹⁷⁷ and co-occupants. ¹⁷⁸

The third-party and assumption-of-risk doctrines played a central role in *Jones* because they led to the *United States v. Knotts*¹⁷⁹ and *United States v. Karo*¹⁸⁰ beeper precedents, which relied upon a public- versus private-space distinction in resolving challenges to warrantless search activity. In both *Knotts* and *Karo*, law enforcement officers installed beeper devices into containers that were placed into vehicles, and then used the beepers to track the vehicles as they traveled public roads.¹⁸¹ Relying upon the third-party and assumption-of-risk doctrines, the Supreme Court upheld the warrantless beeper surveillance. The *Knotts* Court cited *Smith* and reasoned that:

^{173.} Id. at 741–46. Smith was superseded by a statutory enactment that limits the use of pen registers. See 18 U.S.C. §§ 3121–27 (2006 & Supp. III 2010 & Supp. IV 2011). After the September 11, 2001 terrorist attacks, Congress statutorily authorized the Attorney General to use pen registers without prior court approval in emergency circumstances relating to international terrorism and foreign intelligence. See 50 U.S.C. §§ 1842–43 (2006 & Supp. II 2009 & Supp. III 2010 & Supp. IV 2011).

^{174. 425} U.S. 435 (1976).

^{175.} Id. at 440–45. Miller was superseded by the Right to Financial Privacy Act of 1978, Pub. L. No. 95-630, 92 Stat. 3697 (codified as amended at 12 U.S.C. § 3401–22 (2006)), which effectively created "a statutory Fourth Amendment for bank customers." Davidov v. SEC, 415 F. Supp. 2d 386, 387 (S.D.N.Y. 2006); see also id. at 387–88 (describing RFPA regime that provides bank customers a process for contesting government subpoenas seeking access to their bank records).

^{176.} See, e.g., United States v. Jacobsen, 466 U.S. 109, 117 (1984); Frazier v. Cupp, 394 U.S. 731, 740 (1969).

^{177.} See, e.g., United States v. White, 401 U.S. 745, 752 (1971); Hoffa v. United States, 385 U.S. 293, 302-03 (1966).

^{178.} See United States v. Matlock, 415 U.S. 164, 171 & n.7 (1974).

^{179. 460} U.S. 276 (1983).

^{180. 468} U.S. 705 (1984).

^{181.} Id. at 708; Knotts, 460 U.S. at 278.

When [the driver] traveled over the public streets he 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.

. . . .

Visual surveillance from public places... would have sufficed to reveal all of these facts to the police. The fact that the officers in this case relied not only on visual surveillance, but also on the use of the beeper to signal the presence of [the] automobile to the police receiver, does not alter the situation. 182

The *Karo* Court adhered to this *Knotts* reasoning and did not dispute the legitimacy of warrantless beeper surveillance on public roads. 183

Knotts and Karo thus built upon the third-party doctrine to create a private- versus public-space distinction that can resolve the reasonable expectation of privacy inquiry that Katz demands. This private-public space distinction has served as a Fourth Amendment foundational concept, as it can explain, for example, the distinction between curtilage, which can enjoy Fourth Amendment protection, and open fields, which do not, as well as why the government is free to search at will the garbage you leave at your curb.

Predictably, in *Jones* the United States relied heavily upon *Knotts* and *Karo*, asserting that the private-public space distinction allowed warrantless GPS tracking on public roads.¹⁸⁷ At oral

^{182.} Knotts, 460 U.S. at 281-82.

^{183.} See Karo, 468 U.S. at 715. Given the specific issue presented, the Karo Court rejected the Fourth Amendment legitimacy of the warrantless beeper surveillance under review because it involved beeper "monitoring... inside [a] house, a fact that could not have been visually verified" from a public area. Id.; see also id. at 714-17 (discussing why beeper monitoring of a private residence "violates the Fourth Amendment rights of those who have a justifiable interest in the privacy of the residence").

^{184.} See United States v. Dunn, 480 U.S. 294, 300-01 (1987).

^{185.} Oliver v. United States, 466 U.S. 170, 178-80 (1984); Hester v. United States, 265 U.S. 57, 59 (1924).

^{186.} See California v. Greenwood, 486 U.S. 35, 39-44 (1988).

^{187.} This was the crux of the United States's litigation strategy, so much so that the United States's first few words at oral argument were:

[[]T]he Court has recognized a basic dichotomy under the Fourth Amendment. What a person seeks to preserve as private in the enclave of his own home or in a private letter or inside of his vehicle when he is traveling is a subject of Fourth Amendment protection. But what he reveals to the world, such as his movements in a car on a public roadway, is not.

argument, this contention most vexed the Justices, with seven of them—all except Justices Thomas and Alito—speaking to the issue. Early on, Chief Justice Roberts asked the United States, "You think there would... not be a search if you put a GPS device on all of our cars, monitored our movements for a month? You think you're entitled to do that under your theory?" The startled Deputy Solicitor General stammered, "The Justices of this Court?" After the courtroom's laughter ebbed, Chief Justice Roberts responded, "Yes." The import of the subsequent and somewhat indirect answer was clear, which led Chief Justice Roberts to confirm, "So, your answer is yes, you could tomorrow decide that you put a GPS device on every one of our cars, follow us for a month; no problem under the Constitution?" Justices Ginsberg and Breyer echoed this assessment. Justices Kennedy, Sotomayor, and Kagan echoed this assessment. Justices Kennedy, Sotomayor, and Kagan all raised hypotheticals involving GPS tracking of individuals in public spaces.

In *Knotts v. United States*, this Court applied that principle to hold that visual and beeper surveillance of a vehicle traveling on the public roadways infringed no Fourth Amendment expectation of privacy.

Jones Transcript, *supra* note 2, at 3. The United States repeatedly reasserted this argument that no privacy expectation exists in one's public location, including when determined through GPS tracking. *See id.* at 5, 9–11, 20–21, 60.

188. Id. at 9.

189. Id.

190. Id.

191. Id. at 10. The Deputy Solicitor General answered by pointing out that the FBI could accomplish the same objective by putting "a team of surveillance agents around the clock on any individual and follow[ing] that individual's movements as they went around on the public streets." Id.

192. Id. at 12. Addressing the Deputy Solicitor General, she stated, "Essentially, I think you answered the question that the government's position would mean that any of us could be monitored whenever we leave our homes. So, the only thing secure is the home. Is—I mean, this is—that is the end point of your argument, that an electronic device, as long as it's not used inside the house, is okay." Id.

193. Id. at 13 (pointing out to the United States that "if you win this case, then there is nothing to prevent the police or the government from monitoring 24 hours a day the public movement of every citizen of the United States").

194. Id. at 5 (asking about "a beeper [put] surreptitiously on [a] man's overcoat or sport coat" that "measures only streets and public elevators and public buildings").

195. Id. at 18 (expressing concern that the United States's aggressive invocation of the private-public space distinction could allow it to "monitor and track every person through their cell phone, because today the smartphones emit signals that police can pick up and use to follow someone anywhere they go").

196. Id. at 57-58 (raising the possibility of "a little robotic device following you around 24 hours a day anyplace you go that's not your home, reporting in all your movements to the police, to investigative authorities").

Justices Kagan¹⁹⁷ and Brever, ¹⁹⁸ seeking an explanation as to how the private-public space distinction could be applied so as preserve Knotts while invalidating warrantless GPS tracking in public spaces, compared the latter to tracking by video cameras in London. Later, Justice Kennedy kept to the same topic but switched locations, pointing out that "[1]ots of communities have, including Washington, cameras on—at intersections on stop lights,"199 and asking, "Suppose the police suspected someone of criminal activity, and they had a computer capacity to take pictures of all the intersections that he drove through at different times of day, and they checked his movements and his routes for 5 days. Would that be lawful?"200 (Chances are that he had no idea such powerful camera surveillance technology-license plate readers-already exists, and is most ubiquitous in Washington, D.C.²⁰¹) Justice Sotomayor switched location again, but this time to outer space, raising the prospect of satellite-based visual monitoring.²⁰² Justice Scalia agreed that the private-public distinction posed the key difficulty, stating that "our cases have said that there's no search when—when you are in public

^{197.} Id. at 36 (stating, "[M]aybe this is wrong, but I'm told that if somebody goes to London, almost every place that person goes there's a camera taking pictures, so that the police can put together snapshots of where everybody is all the time," and asking, "So, why is this different from that?").

^{198.} *Id.* at 37 ("And, in fact, those cameras in London actually enabled them, if you watched, I got the impression, to track the bomber who was going to blow up the airport in Glasgow and to stop him before he did.").

^{199.} Id. at 47.

^{200.} Id.

^{201.} About two weeks after oral argument in *Jones*, the *Washington Post* reported that "[m]ore than 250 cameras in the District and its suburbs scan license plates in real time" and that "[w]ith virtually no public debate, police agencies have begun storing the information from the cameras, building databases that document the travels of millions of vehicles." Allison Klein & Josh White, *More Eyes Turn To License Tag Readers*, WASH. POST, Nov. 20, 2011, at A1. The cameras reportedly can "capture numbers across four lanes of traffic on cars zooming up to 150 mph," obtaining "1,800 images a minute"—information that police "download... into a rapidly expanding archive that can pinpoint people's movements all over town." *Id.* The database allows police to enter license plate numbers, and then produces matching results showing historical locations at particular times. *Id.* Police can also enter license plate numbers into the database and receive alerts when a new match is found in real time. *Id.* The *Post* reports that Washington, D.C. has "the highest concentration" of such cameras "in the nation." *Id.*

This technology is sited differently than the cameras Justice Kennedy mentioned. In Washington, D.C., about half of these license plate cameras are stationary, similar to the ones Justice Kennedy mentioned, but the other half are mobile, being "attached to police cars." *Id.*

^{202.} Jones Transcript, *supra* note 2, at 39 (contemplating that the United States might someday be able to use satellite cameras that "are going to be able to show you the entire world and let you track somebody on the camera from place to place").

and where everything that you do is open to—to the view of people. That's the hard question in the case...."203 Thus, he opined that Jones would need:

[T]o establish, [under Katz], that there has been an invasion of—of privacy when all that—all that this is showing is where the car is going on the public streets, where the police could have had round-the-clock surveillance on this individual for a whole month or for 2 months or for 3 months....²⁰⁴

Katz, then, with its move to privacy and the resulting private-versuspublic space distinction applied in Knotts and reaffirmed in Karo, posed a significant doctrinal problem for Jones in his effort to claim Fourth Amendment protections from warrantless GPS tracking on public roads.

1. Justice Alito's Revolutionary Approach

Justice Alito's concurring opinion in Jones, which he bases upon Katz-ian privacy, offers two completely new and revolutionary criteria for determining when an objective privacy expectation can exist in public space. The first is a temporal limit on surveillance, and the second is an offense-specific distinction. Though these new criteria are not binding given that Justice Sotomayor did not technically join Justice Alito's concurring opinion, her strong suggestion that she is ready to provide a critical fifth vote means that Justice Alito's approach is certain to remain in play. (Justice Scalia's propertycentric trespass-based theory eschews privacy and thus has nothing to say on the private-public space distinction.) Unfortunately, and shockingly, Justice Alito provides virtually no guidance about how to apply his approach. This makes Justice Sotomayor's thoughts on the issue, which she details in her concurring opinion, significant, especially because she has both important agreements and disagreements with Justice Alito on the topic.

The totality of Justice Alito's privacy "analysis" follows:

The best that we can do in this case is to apply existing Fourth Amendment doctrine and to ask whether the use of GPS tracking in a particular case involved a degree of intrusion that a reasonable person would not have anticipated.

^{203.} Id. at 40.

^{204.} Id. at 40-41.

Under this approach, relatively short-term monitoring of a person's movements on public streets accords with expectations of privacy that our society has recognized as reasonable. See Knotts, 460 U.S., at 281–282, 103 S. Ct. 1081. But the use of longer term GPS monitoring in investigations of most offenses impinges on expectations of privacy. For such offenses, society's expectation has been that law enforcement agents and others would not—and indeed, in the main, simply could not—secretly monitor and catalogue every single movement of an individual's car for a very long period. In this case, for four weeks, law enforcement agents tracked every movement that respondent made in the vehicle he was driving. We need not identify with precision the point at which the tracking of this vehicle became a search, for the line was surely crossed before the 4-week mark. Other cases may present more difficult questions. 205

Justice Alito's privacy "analysis" is, in a word, cursory. He provides little in the way of real analysis or reasoned justification to support his conclusion. This brings to mind one of Katz's great vulnerabilities, namely that the new privacy standard it introduced was too amorphous and provided judges with too much power. This, in turn, has the detrimental effect of potentially reducing the predictive value of Fourth Amendment jurisprudence. Justice Alito did remarkably little to avoid these criticisms. He did not invoke empirical support; nor provide any meaningful evaluation or discussion of social expectations; nor look to literature or art for any guidance as to how they might speak to resolving the objective prong (despite 1984 and its ubiquitous specter in this context²⁰⁹); nor distinguish increasingly ubiquitous camera surveillance of public areas, which potentially allows the functional equivalent to GPS tracking or

^{205.} United States v. Jones, 132 S. Ct. 945, 964 (2012) (Alito, J., concurring) (emphasis added).

^{206.} See Katz v. United States, 389 U.S. 347, 374 (1967) (Black, J., dissenting) (asserting that "the Framers... did not intend to grant this Court such omnipotent lawmaking authority" as "to hold unconstitutional everything which affects privacy").

^{207.} For examples of the sort of empirical analysis that Justice Alito failed to employ, see generally Henry F. Fradella et al., Quantifying Katz: Empirically Measuring "Reasonable Expectations of Privacy" in the Fourth Amendment Context, 38 Am. J. CRIM. L. 289 (2011); Christopher Slobogin & Joseph E. Schumacher, Reasonable Expectations of Privacy and Autonomy in Fourth Amendment Cases: An Empirical Look at "Understandings Recognized and Permitted by Society," 42 DUKE L.J. 727 (1993).

^{208.} See Georgia v. Randolph, 547 U.S. 103, 111 (2006); Rakas v. Illinois, 439 U.S. 128, 144 n.12 (1978).

^{209.} See supra notes 2-3.

something near to it;²¹⁰ nor identify any supporting precedent apart from *Knotts*, but this invocation, as I will soon explain, is specious.

I will discuss Justice Alito's new temporal limit here, and his new offense-specific distinction later. ²¹¹ Justice Alito's temporal limit frees "relatively short-term monitoring" from Fourth Amendment oversight but extends Fourth Amendment protections to "longer term GPS monitoring." ²¹² This distinction suffers from an obvious line-drawing problem. How brief must GPS surveillance be to escape Fourth Amendment protections? At what point does such surveillance become so prolonged that an objective privacy expectation is infringed such that a Fourth Amendment "search" has suddenly come into being? All we know after his concurring opinion in *Jones* is that twenty-eight days of pervasive GPS monitoring meets the prolonged standard. Justice Alito punts on providing any further guidance, merely asserting that "[w]e need not identify with precision the point at which the tracking of this vehicle became a search, for the line was surely crossed before the 4—week mark." ²¹³

This new temporal limit also suffers due to its dubious origins. The *only* claim to authority Justice Alito invoked for his novel temporal limitation is *Knotts*.²¹⁴ But that citation, rather than providing cover for Justice Alito's conclusion, is actually emblematic of what makes Justice Alito's privacy "analysis" so frustrating, and will make his suggestion of this new temporal distinction highly controversial.

Nowhere in the cited portion of *Knotts* (or in any other portion of it) is there any mention that a temporal element was playing any role at all, or that such an element was being used to delineate between existing and non-existing objective privacy expectations. This makes Justice Alito's invocation of *Knotts* to justify his temporal distinction between brief and prolonged GPS tracking suspect at best and disingenuous at worst. At the cited pages, the most relevant

^{210.} See supra notes 197–201 and accompanying text. Justice Alito's failure to speak more substantively to this issue or make any effort to distinguish it from GPS monitoring is particularly frustrating given that earlier in his opinion he had acknowledged the phenomenon of increasingly pervasive camera surveillance. Jones, 132 S. Ct. at 963 (Alito, J., concurring) ("In some locales, closed-circuit television video monitoring is becoming ubiquitous.").

^{211.} See infra Part III.B for a discussion of Justice Alito's new offense-specific distinction.

^{212.} Jones, 132 S. Ct. at 964 (Alito, J., concurring).

^{213.} Id.

^{214.} Id.

concepts that *Knotts* discussed are that the beeper surveillance was (1) of an automobile, which suggests a "diminished expectation of privacy," while (2) "on public streets and highways." These observations led to the *Knotts* passage most relevant to Justice Alito in *Jones*, in which the *Knotts* Court stated:

A person traveling in an automobile on public thoroughfares has no reasonable expectation of privacy in his movements from one place to another. When [the defendant] traveled over the public streets he 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.²¹⁷

Having come out on the losing side, the United States might be forgiven for being in apoplectic shock that Justice Alito apparently invoked this passage against it, given that the passage really supports the United States's assertion-emphasized repeatedly at oral argument—that Jones should lose because all the GPS tracking in his case occurred on public roads. 218 It is true that Knotts involved beeper surveillance of an automobile for what was apparently several hours of one day during a single journey, while Jones involved GPS monitoring "[e]very 10 seconds of the day for 28 days" over all the journeys that took place during that period. Thus, it is undoubtedly possible to distinguish Knotts from Jones based on the length of surveillance involved in each case. Justice Alito, however, could have been clearer about why he believed that *Knotts* supported him, rather than citing to it without comment or discussion as if it directly supported application of a temporal limit to surveillance under the Fourth Amendment.

Except for citing *Knotts*, Justice Alito's concurring opinion provides no helpful guidance about how to resolve Fourth Amendment privacy claims apart from its crucial distinction between brief and prolonged GPS tracking. I will expound on these issues, including important thoughts that Justice Sotomayor has about them,

^{215.} United States v. Knotts, 460 U.S. 276, 281 (1983).

^{216.} Id.

^{217.} Id. at 281-82.

^{218.} See supra note 187 and accompanying text.

^{219.} Jones Transcript, supra note 2, at 33 (assertion by Jones's counsel).

in greater detail later because they are closely tied to mosaic theory.²²⁰

In any event, after *Jones* we are left with four Justices clearly supporting a temporal limit that can influence whether an objective privacy expectation will exist in a public space, 221 with a fifth vote waiting in the wings.²²² This factor would introduce into search jurisprudence a never-before-seen complexity, in which a particular governmental surveillance activity may or may not be covered by the Fourth Amendment depending upon how long the government engages in it. Not only is the inevitable line-drawing that this factor introduces essentially arbitrary, the factor itself is fundamentally counterintuitive in that intrusiveness is measured not by the nature of the challenged governmental surveillance activity itself, but by how long the government engages in it. This is a highly disputable notion of intrusiveness, particularly because Justice Alito seems to embrace it as a means to reconcile Jones with Knotts. But Knotts was not really about the length of the beeper surveillance that occurred in that case. The resulting uncertainty that this vague temporal limit would introduce into GPS surveillance law specifically, and perhaps into surveillance law more generally or even into Fourth Amendment privacy law writ large, would likely have the practical effect of creating a de facto warrant requirement, as Justice Alito himself implied.²²³

2. Justice Sotomayor's Call for Fundamental Reform

Justice Sotomayor concurred separately in *Jones* in part to confront the third-party doctrine head-on. More so than any other Justice in the case, she was willing to stake out an aggressive position. Though she considered Justice Scalia's trespass approach sufficient to resolve the case, ²²⁴ she preferred to write separately to make some

^{220.} See infra Part II.C.

^{221.} These are Justice Alito and the three Justices (Justices Ginsberg, Breyer, and Kagan) who joined his concurring opinion. United States v. Jones, 132 S. Ct. 945, 957 (2012) (Alito, J., concurring).

^{222.} Justice Sotomayor indicated that she was willing to provide a fifth vote to extend Fourth Amendment coverage to prolonged GPS tracking on privacy grounds. See infra text accompanying note 326. However, it appears that Justice Sotomayor may significantly disagree with the limits of Justice Alito's novel temporal factor. See infra text accompanying notes 327–28.

^{223.} See Jones, 132 S. Ct. at 964 (Alito, J., concurring) ("[W]here uncertainty exists with respect to whether a certain period of GPS surveil lance [sic] is long enough to constitute a Fourth Amendment search, the police may always seek a warrant.").

^{224.} Id. at 954-55 (Sotomayor, J., concurring).

broader points given that "physical intrusion is now unnecessary to many forms of surveillance."²²⁵ She was particularly troubled by several aspects of GPS monitoring, which I discuss in greater detail elsewhere,²²⁶ and those concerns were so profound that she declared a willingness to fundamentally "reconsider" third-party doctrine:

[I]t may be necessary to reconsider the premise that an individual has no reasonable expectation of privacy in information voluntarily disclosed to third parties. This approach is ill suited to the digital age, in which people reveal a great deal of information about themselves to third parties in the course of carrying out mundane tasks. People disclose the phone numbers that they dial or text to their cellular providers; the URLs that they visit and the e-mail addresses with which they correspond to their Internet service providers; and the books, groceries, and medications they purchase to online retailers.... [W]hatever the societal expectations, they can constitutionally protected status only if our Fourth Amendment jurisprudence ceases to treat secrecy as a prerequisite for privacy. I would not assume that all information voluntarily disclosed to some member of the public for a limited purpose is, for that reason alone, disentitled to Fourth Amendment protection.227

Justice Sotomayor's shot across the bow of the third-party doctrine is not the first one,²²⁸ but there is little reason to think it will amount to much given that no other Justice joined her critique. Nonetheless, it is an important signal that there is *some* sensitivity on the Court to the third-party doctrine's potentially invasive role when applied to technological surveillance. Time will tell if any other Justice eventually rallies around the flag she raised, though Justice Alito's concurrence, with its refusal to follow the ineluctable logic of the third-party doctrine and simply extend *Knotts* to GPS tracking, sends an interesting signal.

^{225.} Id. at 955.

^{226.} See supra text accompanying notes 73-76; infra notes 296-97 and accompanying text

^{227.} Jones, 132 S. Ct. at 957 (Sotomayor, J., concurring) (emphasis added) (citations omitted).

^{228.} See supra note 171.

C. Privacy, Technology, and Mosaic Theory

1. The Fourth Amendment and Technology: A Summary

A consistent theme in Fourth Amendment jurisprudence is that courts have struggled with the question of whether, and how, to adapt it to technological change. The recent, rapid pace of technological change, which has contributed to an increased interest in preventative searches as a result of heightened security concerns in a post-9/11 world, has brought new urgency to this issue.

More often than not, the Supreme Court has taken a hands-off approach to technological development, refusing to recognize Fourth Amendment privacy barriers to its use. However, the Court has sometimes been willing to intervene even at the risk of dramatically changing Fourth Amendment law. Cases like Olmstead v. United States, ²²⁹ California v. Ciraolo, ²³⁰ Dow Chemical Co. v. United States, ²³¹ as well as United States v. Knotts²³² and United States v. Karo²³³ exemplify the former trend; cases like Katz v. United States²³⁴ and Kyllo v. United States²³⁵ the latter.

One prominent distinction the Court has applied in Fourth Amendment technology cases is whether the technology merely involves sense augmentation or enhancement, on the one hand, or sense replacement or the use of what the Court believes is a disruptive technology, on the other.²³⁶ Sense augmentation played an important role in a Prohibition-era case, *United States v. Lee*,²³⁷ in which the Supreme Court ruled that the use of a searchlight to observe a ship's deck did not constitute a search because it was "comparable to the use of a marine glass or a field glass."²³⁸ Over five

^{229. 277} U.S. 438 (1928).

^{230. 476} U.S. 207 (1986).

^{231. 476} U.S. 227 (1986).

^{232. 460} U.S. 276 (1983).

^{233. 468} U.S. 705 (1984).

^{234. 389} U.S. 347 (1967).

^{235. 533} U.S. 27 (2001).

^{236.} See On Lee v. United States, 343 U.S. 747, 754 (1952) (rejecting challenge to use of transmitter and receiver to overhear conversations because effect was comparable to "eavesdropping outside an open window. The use of bifocals, field glasses or the telescope to magnify the object of a witness' vision is not a forbidden search or seizure...."); Joseph L. Bower & Clayton M. Christensen, Disruptive Technologies: Catching the Wave, HARV. BUS. REV., Jan.—Feb. 1995, at 43, 45 (introducing the term "disruptive technology," which refers to an innovation, such as the compact disc, that creates a new market and eventually changes an existing market by displacing a preexisting technology).

^{237. 274} U.S. 559 (1927).

^{238.} Id. at 563.

decades later, in Texas v. Brown, 239 the Court applied the same reasoning to justify police use of a flashlight to inspect an automobile's passenger and glove compartments.²⁴⁰ Similar reasoning also featured prominently in *United States v. Knotts*, ²⁴¹ which involved the tricky problem of distinguishing whether beeper technology was merely sense-augmenting/enhancing, or instead was sense-replacing. The sense-replacing argument was a strong one, as the beeper allowed police to track the container even in the absence of visual contact. This was vividly demonstrated in the record given that, at one point, police lost visual contact and even the beeper signal, and were able to locate the signal again about an hour later only with a assistance.²⁴² The Court, nonetheless, chose characterize the beeper as a mere sense-augmenting/enhancing device based upon what police could have observed, rather than what they actually observed, reasoning that "[a] police car following [the driver] at a distance throughout his journey could have observed him leaving the public highway and arriving at the cabin owned by respondent."²⁴³ The Court thus invoked the private-public space distinction to justify characterizing the beeper as a mere sense-augmenting/enhancing device despite that police had actually used it as a sense-replacing device. This sleight-of-hand helps explain why many view Knotts, and its conclusion that "[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,"244 as controversial.

Katz and Kyllo are the most prominent Fourth Amendment cases in which the Court deemed technology to be sense-replacing or disruptive enough to justify extending constitutional protection. In Olmstead, the Court had not deemed aural electronic surveillance to fall into these categories, ²⁴⁵ but it changed its mind over forty years later in Katz. ²⁴⁶ As for Kyllo, which concerned external surveillance of a home by police using a thermal imager, ²⁴⁷ it was the flip side of Knotts. Both cases involved technologies that could plausibly be

^{239. 460} U.S. 730 (1983) (plurality opinion).

^{240.} Id. at 739-40.

^{241. 460} U.S. 276 (1983).

^{242.} Id. at 278.

^{243.} Id. at 285.

^{244.} Id. at 282.

^{245.} See Olmstead v. United States, 277 U.S. 438, 465-66 (1928).

^{246.} See Katz v. United States, 389 U.S. 347, 350-53 (1967).

^{247.} Kyllo v. United States, 533 U.S. 27, 29-30 (2001).

described as either sense-augmenting/enhancing or sense-replacing, but the Kyllo majority chose the latter characterization and thus extended Fourth Amendment protections. The dissent argued augmentation, contending that the thermal imager only revealed heat emanating from a home's exterior walls, which could have been visually detected from a public place, such as through observation of melting snow from a sidewalk.²⁴⁸ That the imager more effectively revealed such information was irrelevant. The majority, however, held that the imager was sense-replacing because it revealed information from the home's interior, such as the "hour each night the lady of the house takes her daily sauna and bath," which could not otherwise be visually detected from a public place.²⁴⁹

2. GPS as New Technology

A primary issue in *Jones* was whether GPS monitoring is sense-augmenting/enhancing, or is sense-replacing or so disruptive as to justify creating an exception to the private-public space distinction in order to extend Fourth Amendment protections against police installation of the GPS device or its monitoring on public roads. Taking this step posed a jurisprudential challenge given the presumed constitutionality of ubiquitous camera surveillance of public areas, ²⁵⁰ a point that troubled numerous Justices at oral argument. ²⁵¹ Thus, the Fourth Amendment challenge in *Jones* included a difficult interaction between the private-public space distinction and technological advancement.

Before *Jones*, other courts had struggled with GPS surveillance,²⁵² and the one that had most thoroughly discussed the issue came from New York. In *People v. Weaver*,²⁵³ a major opinion issued in 2009 that struck down warrantless GPS surveillance on New York state constitutional grounds, the New York Court of Appeals implicitly embraced mosaic theory.²⁵⁴ In concluding that the GPS

^{248.} See id. at 41-46 (Stevens, J., dissenting).

^{249.} *Id.* at 38 (majority opinion); see also id. at 34–36 (emphasizing that home's privacy must be protected against technological incursions).

^{250.} See, e.g., Christian M. Halliburton, Letting Katz Out of the Bag: Cognitive Freedom and Fourth Amendment Fidelity, 59 HASTINGS L.J. 309, 347-49 & nn.198, 207 (2007); supra note 201.

^{251.} See supra notes 197-200 and accompanying text.

^{252.} See supra notes 4-5 and accompanying text.

^{253. 909} N.E.2d 1195 (N.Y. 2009).

^{254.} For a brief description of mosaic theory and a quick recitation of its origins, see supra note 27 and accompanying text.

installation and monitoring at issue violated the New York Constitution's search and seizure protections because it was not "compatible with any reasonable notion of personal privacy or ordered liberty," the Court of Appeals wrote:

One need only consider what the police may learn, practically effortlessly, from planting a single device. The whole of a person's progress through the world, into both public and private spatial spheres, can be charted and recorded over lengthy periods possibly limited only by the need to change the transmitting unit's batteries. Disclosed in the data retrieved from the transmitting unit, nearly instantaneously with the press of a button on the highly portable receiving unit, will be trips the indisputably private nature of which takes little imagination to conjure: 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. What the technology yields and records with breathtaking quality and quantity is 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.²⁵⁵

Writing for the majority in *United States v. Maynard*²⁵⁶ (the D.C. Circuit decision on which certiorari was granted in *Jones*), Judge Ginsburg cited *Weaver* and embraced this mosaic theory in striking down the police installation of the GPS device and its subsequent monitoring.²⁵⁷ As had *Weaver*, the D.C. Circuit in *Maynard* linked the mosaic theory to *prolonged* surveillance:

Prolonged surveillance reveals types of information not revealed by short-term surveillance, such as what a person does repeatedly, what he does not do, and what he does ensemble. These types of information can each reveal more about a person than does any individual trip viewed in isolation. Repeated visits to a church, a gym, a bar, or a bookie tell a story not told by any single visit, as does one's not visiting any of these places over the course of a month. The sequence of a person's movements can reveal still more; a single trip to a

^{255.} Weaver, 909 N.E.2d at 1199-1200 (relying upon N.Y. CONST. art. I, § 12).

^{256. 615} F.3d 544 (D.C. Cir. 2010), cert. granted sub nom. United States v. Jones, 131 S. Ct. 3064 (2011).

^{257.} Id. at 562; supra text accompanying note 26-30.

gynecologist's office tells little about a woman, but that trip followed a few weeks later by a visit to a baby supply store tells a different story. A person who knows all of another's travels can deduce whether he is a weekly church goer, a heavy drinker, a regular at the gym, an unfaithful husband, an outpatient receiving medical treatment, an associate of particular individuals or political groups—and not just one such fact about a person, but all such facts.²⁵⁸

The Maynard court elaborated in a footnote upon the importance of the mosaic approach in Jones's prosecution, emphasizing that it was the pattern of activity that was important to the government's case:

This case itself illustrates how the sequence of a person's movements may reveal more than the individual movements of which it is composed. Having tracked Jones's movements for a month, the Government used the resulting pattern—not just the location of a particular "stash house" or Jones's movements on any one trip or even day—as evidence of Jones's involvement in the cocaine trafficking business. The pattern the Government would document with the GPS data was central to its presentation of the case....²⁵⁹

Maynard was particularly vulnerable to criticism for its reliance on the mosaic theory and its emphasis upon prolonged surveillance because both concepts are so indeterminate and present such significant line-drawing problems. Are these concerns at issue only with technological surveillance? Are they at issue with some forms of technological surveillance but not others? How many individual pieces of information need to be collected before the mosaic theory is triggered? Is it possible for a surveillance to be sufficiently brief so as to avoid triggering the mosaic theory or any other Fourth Amendment protection? How brief is that? Do the respective measures differ depending upon context, such as the governmental interest justifying the search? If so, which interests matter? Severity of the offense being investigated? Imminence of harm? Others? Do the answers to these questions differ between criminal as opposed to civil searches? Given these uncertainties, can the mosaic theory and the concept of prolonged surveillance be fashioned so as to provide sufficient guidance to governmental actors who wish to engage in technological surveillance?

^{258.} Maynard, 615 F.3d at 562 (footnote omitted).

^{259.} Id. at 562 n.*.

Unsurprisingly, at oral argument in *Jones* the United States emphasized these complexities:

I first want to address the suggestion that you could draw a line somewhere between a month and a trip and have a workable standard for police officers to use. Police officers use a variety of investigative techniques which in the aggregate produce an enormous amount of information. Pen registers, trash pulls. They look at financial records. They conduct visual surveillance. And under a principle of law that says 1 trip is okay but 30 trips i[s] not, there is absolutely no guidance for law enforcement..... 260

Later, in response to Justice Breyer's question about "tracking [the people's] every movement over long periods of time" and identifying a "reason and the principle that would reject that, but wouldn't also reject 24 hours a day for 28 days," the United States described as "intolerable" the "line-drawing problems that the Court would create for itself" by following such a course. 261

3. The Fourth Amendment Debate Over Mosaic Theory

Like the United States in *Jones*, mosaic theory critics prefer clearer rules, especially those that already exist in Fourth Amendment jurisprudence, such as the private-public space distinction upon which *Knotts* is premised.²⁶² They critique, for example, any attempt to identify arbitrary dividing lines between brief warrantless GPS tracking, which would be free from Fourth Amendment constraints under Justice Alito's approach in *Jones*, and prolonged GPS tracking that triggers the mosaic theory, which according to Justice Alito in *Jones* would be subject to Fourth Amendment protections for "most offenses." ²⁶³

The validity of these critiques is debatable. One problem is that the argument for applying the clear, historically well-established private-public space distinction to a never-before-seen context ignores the prospect that rules that worked well in the past might no longer work given changed circumstances. This is of particular

^{260.} Jones Transcript, supra note 2, at 14.

^{261.} Id. at 24-25.

^{262.} For a critical take on mosaic theory in the Fourth Amendment context, as well as of *Jones*'s apparent support for it, see Orin S. Kerr, *The Mosaic Theory of the Fourth Amendment*, 110 MICH. L. REV. (forthcoming 2012).

^{263.} United States v. Jones, 132 S. Ct. 945, 964 (2012) (Alito, J., concurring); see supra notes 205, 212–223 and accompanying text.

concern when it comes to advancing technologies, with GPS tracking being a prime example. Certainly it is true that police have not needed warrants to engage in physical surveillance in public spaces. This premise supported the United States's argument in *Jones* that it did not need a warrant for GPS tracking because such technology simply provides a different technique for engaging in the same surveillance.²⁶⁴

But GPS tracking is not just different in degree. For at least three reasons, it is different in kind because GPS tracking can achieve outcomes that physical surveillance never could. First, GPS tracking allows potentially perpetual surveillance that is so pervasive and detailed that the government would be unable to achieve the same outcome with physical surveillance due to the possibility of detection (which increases with the length of surveillance) and resourceconstraint issues (in terms of cost, personnel, and human error in recordkeeping). Second, GPS tracking does not require persistent human involvement or even occasional human oversight, as does physical surveillance or even the beeper technology from Knotts and Karo. Third, GPS tracking can access historical data predating the actual start of an investigation and thus go back in time in a way that physical surveillance cannot. The possibility of obtaining such location data exists when the government relies upon pre-existing GPS devices, such as those installed in vehicles or smartphones by manufacturers or owners. 265 At oral argument in Jones, Chief Justice Roberts demonstrated that he was sensitive to these concerns:

That's a lot of work to follow the car. [The police have] to listen to the beeper; when they lose it, they've got to call in the helicopter. Here they just sit back in the station, and they—they push a button whenever they want to find out where the car is. They look at data from a month and find out everywhere it's been in the past month.²⁶⁶

Justice Alito also expressed a similar concern at oral argument that GPS tracking made information collection so easy for the government as to render it different in kind rather than degree.²⁶⁷

^{264.} See supra note 191 and accompanying text.

^{265.} The third-party doctrine suggests that the government may be able to obtain GPS data from third party service providers, such as GPS navigation services or wireless carriers, without a warrant. See supra notes 12–16, 171–78 and accompanying text.

^{266.} Jones Transcript, supra note 2, at 4.

^{267.} See id. at 10-11.

Another problem that mosaic theory critics often fail to sufficiently account for is that simplistically applying the private-public space distinction dramatically restricts Fourth Amendment protections, a point evident in the repeated references to 1984 in cases involving GPS tracking. A common critique of the mosaic theory is that the point at which warrantless GPS tracking in public spaces becomes unconstitutional—when it changes from being brief (and allowed) to prolonged (and disallowed)—is arbitrary. Indeed, the United States voiced this critique at oral argument in Jones. This critique is often accompanied by a strategic parry asserting that the arbitrariness problem should be avoided by ignoring the 1984 concern until it is closer to reality. For instance, in Jones the United States argued, "better that the Court should address the so-called 1984 scenarios if they come to pass, rather than using this case as a vehicle for doing so."

This parry is intellectually disingenuous because the very logic of the arbitrariness-avoidance argument—that difficult line-drawing should be avoided now in favor of the private-public space distinction—preordains the outcome so that line-drawing can never occur and Fourth Amendment protections will never exist. This is because the private-public space distinction leads to only one outcome, regardless of whether the issue is "routine" GPS tracking as in Jones, or dragnet and prolonged GPS use raising Orwellian concerns. If line-drawing is to be avoided now on arbitrarinessavoidance grounds, no basis exists or can exist for imposing it later, for the very reason that Chief Judge Sentelle of the D.C. Circuit so pithily explained when he invoked the private-public space distinction while dissenting from the denial of an en banc hearing in Jones: "The reasonable expectation of privacy as to a person's movements on the highway is . . . zero. The sum of an infinite number of zero-value parts is also zero."271 Justice Scalia acknowledged this logical endpoint at oral argument in Jones, asserting that "[a] hundred times zero equals zero. If ... there is no invasion of privacy for 1 day, there's no invasion of privacy for a hundred days. . . . [I]f there's no invasion of privacy, no matter how many days you do it, there's no invasion of

^{268.} See supra note 2 and accompanying text.

^{269.} See supra text accompanying notes 260-61.

^{270.} Jones Transcript, supra note 2, at 25.

^{271.} United States v. Jones, 625 F.3d 766, 769 (D.C. Cir. 2010) (Sentelle, C.J., dissenting from denial of en banc hearing); see also supra text accompanying note 31 (quoting Judge Sentelle's language more fully).

privacy."272 Thus, avoiding line-drawing now, in favor of the privatepublic space distinction, leads right into the Orwellian nightmare. The logical conclusion of the private-public space distinction is that it preserves a Fourth Amendment zone of privacy only in private homes, as Justice Ginsberg indicated at oral argument in *Jones*. ²⁷³ The Fourth Amendment would not protect individuals visiting a business because businesses are public accommodations, open to all and thus more like public than private spaces. The private-public space distinction could deny Fourth Amendment protections to individuals in private spaces that are part of the commons, a property status that has become increasingly prevalent in urban areas.²⁷⁴ Sometimes, not even the home is protected. The private-public space distinction, with its link to the third-party doctrine, can deprive an individual of Fourth Amendment protections that would otherwise exist in a private home to the extent that the information or activities that the government seeks to discover have been exposed to others.²⁷⁵ Consequently, the constitutional choice in *Jones* was to begin the process of line-drawing now, or quite possibly not at all.

Line-drawing could be accomplished while providing adequate guidance to governmental actors. Though the United States argued that line-drawing would be "intolerable" and could not be implemented without depriving the government of needed guidance, ²⁷⁶ this is a strawman argument given that imposing a warrant requirement for GPS tracking would provide a clear, brightline rule, which police could easily follow, and which would meaningfully protect the public from this sort of surveillance by regulating police discretion.

^{272.} Jones Transcript, supra note 2, at 41.

^{273.} See supra note 192.

^{274.} See Matthew J. Kiefer, Privatizing Creation of the Public Realm: The Fruits of New York City's Incentive Zoning Ordinance, 28 B.C. ENVTL. AFF. L. REV. 637 (2001) (reviewing JEROLD S. KAYDEN, PRIVATELY OWNED PUBLIC SPACE: THE NEW YORK CITY EXPERIENCE (2000)). The most famous recent example of such a private commons is Zuccotti Park in New York City, site of the original Occupy Wall Street movement. See People v. Nunez, No. 2011 NY 082981, 2012 WL 1150124 (N.Y. Crim. Ct. 2012) (denying motion to dismiss charges of trespass, disorderly conduct, and obstruction of governmental administration after private property owner withdrew its permission for public to be in Zuccotti Park).

^{275.} See supra notes 176-78. Moreover, even independent of the third-party doctrine and its implications, the home's privacy protections are far from inviolate. Under certain circumstances they can be infringed through warrantless and even suspicionless searches. See, e.g., Griffin v. Wisconsin, 483 U.S. 868, 880 (1987) (supervision of probationers); Wyman v. James, 400 U.S. 309 (1971) (welfare home inspections).

^{276.} Jones Transcript, supra note 2, at 24-25.

Much more serious than the arbitrariness problem is the institutional competency question of whether the judiciary or legislature, or both, should do the line drawing. Certainly Congress has a valid role to play in helping to define the lawful parameters of electronic surveillance, and has repeatedly shown itself willing and able to play that role.²⁷⁷ Indeed, legislative attempts to regulate GPS tracking, as well as its related cousin cellular tracking, have been introduced.²⁷⁸ Undoubtedly, Congress can play a powerful role in policing against the Orwellian state. Given that the dystopian nightmare is defined by both pervasive and widespread surveillance, majoritarianism holds the potential to act as a meaningful check against it.²⁷⁹ But these are insufficient reasons for the judiciary to defer to the legislature on issues of technological surveillance.

I have elsewhere asserted that the judiciary has an especially important role in guaranteeing Fourth Amendment protections.²⁸⁰

^{277.} See, e.g., Federal Wiretap Act, 18 U.S.C. §§ 2510–22 (2006 & Supp. IV 2011); Stored Communications Act, 18 U.S.C. §§ 2701–12 (2006 & Supp. IV 2011); Pen Register Act, 18 U.S.C. §§ 3121–27 (2006 & Supp. IV 2011); see also Ohm, Broken Promises, supra note 19, at 1733–34 (describing how rise of computerization and massive government databases spurred legislatures "to move to the forefront of privacy regulation").

^{278.} At the federal level, Senators Leahy, Wyden, and Franken have all proposed such bills. Electronic Communications Privacy Act Amendments Act of 2011, S. 1011, 112th Cong. (1st Sess. 2011) (Leahy Bill); Geolocational Privacy and Surveillance Act, S. 1212, 112th Cong. (1st Sess. 2011) (Wyden Bill); Location Privacy Act of 2011, S. 1223, 112th Cong. (1st Sess. 2011) (Franken Bill). Several states have also introduced such legislation, often based upon the Wyden model. S. 761, 2011 Reg. Sess. (Cal. 2011); The Interception and Disclosure of Geolocation Information Protection Act of 2011, H.R. 674, 151st Gen. Assemb., Reg. Sess. (Ga. 2012) (mirrors Wyden Bill); S. 360, 117th Gen. Assemb., 2d Sess. (Ind. 2012); An Act Relative to location tracking by electronic communication devices, H.R. 1675, 162d Sess. (N.H. 2012), http://www.gencourt.state.nh.us//legislation/2012/HB1675.html; Geolocation Information Protection Act, H.R. 2861, 53d Legis., 2d Reg. Sess. (Okla. 2012) (mirrors Wyden Bill).

^{279.} At oral argument in *Jones*, Justice Scalia was the only member of the Court who vocally and dismissively discounted Orwellian concerns, premising his dismissiveness upon majoritarian safeguards. During an exchange between Justice Sotomayor and the United States in which she raised the hypothetical of a government-installed GPS device "on every car in the nation," Justice Scalia interjected, declaiming, "Don't we have any legislatures out there that could stop this stuff?" Jones Transcript, *supra* note 2, at 26. Later, addressing prolonged surveillance, he stated, "[I]t may be unreasonable police conduct, and we can handle that with laws," and, with respect to line-drawing to establish the allowed length of surveillance, noted, "Of course, a legislature can take care of this." *Id.* at 41, 51. Justice Scalia directly challenged Jones's counsel on this point, asking, "Why isn't this precisely the kind of a problem that you should rely upon legislatures to take care of?" *Id.* at 52. Jones's counsel had perhaps his best rhetorical moment during oral argument when he answered in part, "In this particular case I could probably give you 535 reasons why not to go to Congress." *Id.*

^{280.} See Arcila, Death of Suspicion, supra note 165, at 1338.

This is particularly true in the context of electronic surveillance, if only because Congress cannot keep pace with technological advances. Moreover, even in instances when Congress might timely demonstrate an interest in intervening, as it arguably has with GPS tracking, 281 there is a world of difference between expressed legislative interest and actual legislative accomplishment. Other important concerns are that the legislative process is vulnerable to capture, and that executive processes can sacrifice minority interests, such that they may fail to impartially protect the public. These instances can easily occur in contexts where the Fourth Amendment is implicated, such as the targeting of religious minorities (think about national security concerns and actual practices with regard to Muslim communities in the past decade since 9/11282) or ethnic minorities (think about search practices, including warrantless home raids, used in immigration enforcement²⁸³). In light of these concerns, the judiciary's special role in protecting Fourth Amendment rights is especially magnified given that there will often be an interest in using technological surveillance against groups that are disfavored, unpopular, or in the minority. Such groups can be expected to rarely, if ever, have their interests adequately protected through the political process.

^{281.} See supra note 278 and accompanying text.

^{282.} For instance, after 9/11 New York City instituted a suspicionless bag search program in its subway system, which was upheld against a facial challenge in part based upon the city's representation that randomness is assured, and invidious discrimination avoided, through a pre-determined selection rate. MacWade v. Kelly, 460 F.3d 260 (2d Cir. 2006). Jangir Sultan, a thirty-two year old native New Yorker of Kashmiri descent, sued the city after having been stopped and searched twenty-one times since the program started in 2005; he alleged that the chance of his having been legitimately stopped and searched to that extent under the program was about one in 165 million. Complaint at 1, 3, No. 09 CIV 698 2009). Kelly, (E.D.N.Y. http://www.nyclu.org/files/SultanvCityofNewYorkComplaint2-19-09_0.pdf. New York City settled the case by paying \$10,000 in damages, plus attorney fees, after twice rejecting Sultan's offers to forego damages in exchange for monitoring of the program. Sultan v. Kelly, et al. (Challenging the NYPD's Subway Bag Search Program), NYCLU, http://www.nyclu.org/case/sultan-v-kelly-et-al-challenging-nypds-subway-bag-searchprogram (last visited Nov. 16, 2012).

New York City has also been embroiled in another major controversy after it was discovered that its police department instituted a secret spying program targeting Muslim communities in and around New York City, with a focus on New Jersey. See Hassan v. New York, No. 2:12-cv-03401 (D.N.J. filed June 6, 2012). For a series of Associated Press news reports about the controversy see AP's Probe into NYPD Intelligence Operations, AP, http://ap.org/Index/AP-In-The-News/NYPD (last visited Nov. 16, 2012).

^{283.} See, e.g., Argueta v. U.S. Immigration and Customs Enforcement, 643 F.3d 60 (3d Cir. 2011); Aguilar v. Immigration and Customs Enforcement Div. of the U.S., 811 F. Supp. 2d 803 (S.D.N.Y. 2011).

Given the need for judicial involvement, it was comforting that in Jones all nine Justices agreed that the Fourth Amendment applied to GPS use, with the happy likelihood that the judiciary will play an important role in overseeing the use of this surveillance technique. On this point, Justice Alito's and Justice Sotomayor's concurring opinions provided important guidance about applying Katz's privacy model to technological surveillance. (Justice Scalia's approach has nothing to say on this point given that he resolved the case on historical grounds, with concerns about modern technology playing no role.)

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In light of Justice Alito's willingness to reject the broad reading of the private-public space distinction as exemplified in *Knotts*,²⁸⁴ the question of his motivation becomes crucial. A good guess is that he wanted to assure that the Fourth Amendment keeps pace with technological change. He did not say so explicitly, but there is ample support for this conclusion. For example, his concern at oral argument about the ease with which the government can amass information using advanced technology is suggestive. He stated:

[I]t seems to me the heart of the problem that's presented by this case and will be presented by other cases involving new technology is that in the pre-computer, pre-Internet age, much of the privacy—I would say most of the privacy—that people enjoyed was not the result of legal protections or constitutional protections; it was the result simply of the difficulty of traveling around and gathering up information.

But with computers, it's now so simple to amass an enormous amount of information about people that consists of things that could have been observed on the streets, information that was made available to the public.²⁸⁵

His comments are interesting in that they at once suggest both a constrained past view of Fourth Amendment protections and perhaps a need to expand those protections to account for technological advances. He pursued his suggestion in his *Jones* concurrence, writing:

In the pre-computer age, the greatest protections of privacy were neither constitutional nor statutory, but practical.

^{284.} See supra Part II.B.1.

^{285.} Jones Transcript, *supra* note 2, at 10–11. As set forth above, Chief Justice Roberts expressed similar concerns during oral argument in *Jones. See supra* text accompanying note 266. This raises the intriguing prospect that he might have some sympathy for Justice Alito's approach despite joining only Justice Scalia's majority opinion.

Traditional surveillance for any extended period of time was difficult and costly and therefore rarely undertaken. The surveillance at issue in this case—constant monitoring of the location of a vehicle for four weeks—would have required a large team of agents, multiple vehicles, and perhaps aerial assistance. Only an investigation of unusual importance could have justified such an expenditure of law enforcement resources. Devices like the one used in the present case, however, make long-term monitoring relatively easy and cheap.²⁸⁶

Justice Alito's solution for adapting Fourth Amendment principles to new and evolving technology, at least in the context of GPS tracking, was to add his new temporal limit to Katz's objective privacy prong. In doing so, he chose to use time as a proxy for a more diffuse set of concerns that technology raises in the search context. One such concern is ease of access to information, which could be measured in myriad ways such as work hours, required endurance, or resource intensity. Another concern is whether technology literally makes information gathering possible that would otherwise be impossible. The availability of historical GPS data is a good example of this possibility. Another concern is the volume of information obtained. Rather than descend into the complexity that would arise by considering some or all of these factors, he preferred to take a more generalized approach by applying a temporal metric.

Justice Alito's reasoning is novel in that it suggests that the judiciary has a special role in assuring Fourth Amendment protections—to act as a bulwark against the government being able to manipulate privacy expectations—though the Court itself opened the door to such manipulation. The prospect of such manipulation has long been a critique of *Katz* and its importation of a privacy standard into Fourth Amendment search jurisprudence. Indeed, Justice Alito recognizes the prospect of such manipulation. For example, he points out that numerous developing technologies—such as widespread camera surveillance, "automatic toll collection systems," and cellular and GPS tracking—"will continue to shape the average person's expectations about the privacy of his or her daily movements." Unstated but implicit in Justice Alito's concurring opinion is that the government can also leverage the third-party doctrine to take

^{286.} United States v. Jones, 132 S. Ct. 945, 963-64 (2012) (Alito, J., concurring) (footnote omitted).

^{287.} Id. at 963.

advantage of lessened objective privacy expectations. This is the point he sought to make when he wrote in his concurring opinion that "technology can change" objective privacy expectations.²⁸⁸ He explained that:

Dramatic technological change may lead to periods in which popular expectations are in flux and may ultimately produce significant changes in popular attitudes. New technology may provide increased convenience or security at the expense of privacy, and many people may find the tradeoff worthwhile. And even if the public does not welcome the diminution of privacy that new technology entails, they may eventually reconcile themselves to this development as inevitable. 289

Justice Alito's view turns the old critique of *Katz* on its head. Instead of the privacy concept being a weakness in the Supreme Court's Fourth Amendment canon—raising the prospect of governmental manipulation of the public's objective privacy expectations and thus constituting a threat to the public's protections from governmental searches—it now becomes a strength, a device that both justifies and promises a strong judicial role in assuring Fourth Amendment protections.

There is an odd paternalism to Justice Alito's approach. In his view, the problem is not an overreaching government or a judiciary that has improperly formulated Fourth Amendment law, but ourselves and our overly elastic approach to privacy. As in all complex dynamics, there is an undeniable grain of truth in Justice Alito's presentation. It remains difficult to argue that Facebook is such a necessity that it is unfair to impose a tradeoff in our privacy expectations should we choose to disclose our personal information to it. But perhaps we have already reached a point where that argument works with Google or other Internet search engines given the central role that Internet access and information has in our modern lives. In any case, such arguments certainly fall flat in contexts like banking or telephonic communications, where it hardly seems fair to treat our willingness to interact with third-party service providers as knowing and voluntary sacrifices to our objective privacy expectations, though this is the premise underlying application of the third-party doctrine in such contexts.²⁹⁰ Despite this significant

^{288.} Id. at 962.

^{289.} Id. (footnote omitted).

^{290.} See supra notes 171-75 and accompanying text.

fictional premise, which is a Supreme Court creation, Justice Alito characterizes us as the problem, and implicitly offers that we should apparently take comfort that he and the judiciary will be there to protect us from ourselves.

Unlike Justice Alito, Justice Sotomayor was more intellectually honest on this point, writing that:

Perhaps, as Justice Alito notes, some people may find the "tradeoff" of privacy for convenience "worthwhile," or come to accept this "diminution of privacy" as "inevitable," and perhaps not. I for one doubt that people would accept without complaint the warrantless disclosure to the Government of a list of every Web site they had visited in the last week, or month, or year.²⁹¹

Consequently, she was willing to suggest that the problem is not us, but Supreme Court precedent, which led to her explicit willingness to "reconsider" the third-party doctrine. But, as no other Justice is yet willing to join Justice Sotomayor at this point, all we can do is take solace that Justice Alito—and Justices Ginsberg, Breyer, and Kagan, who all joined his concurrence—will stand as bulwarks against our own diminished privacy expectations in a technologically advanced world, which in Justice Alito's view we impose upon ourselves.

The positions that Justices Alito and Sotomayor took are also important for what they imply about the Supreme Court's views on mosaic theory. Neither of them use the term, but they implicitly indicate varying degrees of willingness to accept mosaic theory as at least part of Fourth Amendment surveillance law.

Justice Alito's thoughts on mosaic theory are implicit in the new temporal distinction he applies when determining if an objective expectation of privacy exists. It appears that, in his view, what makes brief GPS monitoring not a "search" under the Fourth Amendment is that it reveals a smaller and thus acceptable amount of information, such that no objective expectation of privacy is infringed.²⁹³ By contrast, Justice Alito suggests that what makes prolonged GPS monitoring a Fourth Amendment "search" is that it will reveal more information, such that an objective expectation of privacy is infringed.²⁹⁴ If this is correct, Justice Alito is, even if unconsciously,

^{291.} Jones, 132 S. Ct. at 957 (Sotomayor, J., concurring) (citation omitted).

^{292.} See supra text accompanying note 227.

^{293.} See Jones, 132 S. Ct. at 964 (Alito, J., concurring).

^{294.} See id.

endorsing a version of mosaic theory, as he is drawing Fourth Amendment distinctions based upon the amount of information collected, rather than through some other measure such as the type of search activity at issue. Importantly, at least three other Justices (Justices Ginsberg, Breyer, and Kagan, who joined Justice Alito's concurrence) presumably agree with this implicit embrace of mosaic theory and its incorporation into Fourth Amendment law, as none of them wrote separately to indicate any qualms about or disagreements with it.

In her separate concurrence, Justice Sotomayor even more clearly endorsed the use of mosaic theory in the Fourth Amendment. Citing to and even parenthetically quoting from that portion of the New York Court of Appeals's Weaver decision that relied upon mosaic theory, 295 she pointed to the GPS-enabled capability of developing a "precise, comprehensive record of a person's public movements that reflects a wealth of detail about her familial, political, professional, religious, and sexual associations."296 She went on to specify that she would ask "whether people reasonably expect that their movements will be recorded and aggregated in a manner that enables the Government to ascertain, more or less at will, their political and religious beliefs, sexual habits, and so on."297 These statements demonstrate that, more than any other Justice, she would consider the amount and extent of information obtained through surveillance, and thus looks favorably upon mosaic theory in the context of Fourth Amendment surveillance law.

Justice Scalia is no fan of the mosaic theory, and by extension it appears that the three Justices who joined him (Chief Justice Roberts and Justices Kennedy and Thomas) are not either. Justice Scalia derided the mosaic theory implications of Justice Alito's temporal distinction, pointing to the difficulty of the line-drawing that inevitably follows.²⁹⁸

Nonetheless, the support evident in Justice Alito's and Justice Sotomayor's concurring opinions for some iteration of the mosaic theory may have significant implications. They have added their voices to Weaver's embrace of mosaic theory in a Fourth Amendment

^{295.} See supra text accompanying notes 253-55.

^{296.} Jones, 132 S. Ct. at 955 (Sotomayor, J., concurring).

^{297.} Id. at 956.

^{298.} See id. at 954 (majority opinion) (pointing to the difficulty in distinguishing between a four-week-long investigation versus a two-day or six-month-long investigation).

context.²⁹⁹ After *Jones*, momentum may be building on this point, as the South Dakota Supreme Court has added its support as well.³⁰⁰

III. NEW QUESTIONS AFTER JONES

The complexity of the *Jones* opinions leaves open numerous issues for future exploration and clarification. I flag some of these issues below, pointing out uncertainties that result from *Jones*, as well as possible avenues along which Fourth Amendment jurisprudence may develop.

A. Fourth Amendment Constitutionality of GPS Searches

Jones decided only that the GPS tracking at issue was subject to Fourth Amendment strictures. It did not say anything about what those strictures are, or should be. The Supreme Court did not, for instance, follow its own examples from Katz v. United States³⁰¹ or Kyllo v. United States.³⁰² In each of these cases, the Court ruled that the challenged surveillance was not only a "search" under the Fourth Amendment, but also clarified that a warrant was presumptively required.³⁰³ In contrast, the Jones Court stopped after ruling that the GPS tracking was a Fourth Amendment "search." It did not impose a

Current GPS technology is uniquely intrusive in the wealth of highly-detailed information it gathers. The GPS device used in this case continuously transmitted the geographic location of Zahn's vehicle to a computer at the Brown County Sheriff's Department. It enabled officers to not only determine his speed, direction, and geographic location within five to ten feet at any time, but to also use the recorded information to discover patterns in the whole of his movements for nearly a month.

... When the use of a GPS device enables police to gather a wealth of highly-detailed information about an individual's life over an extended period of time, its use violates an expectation of privacy that society is prepared to recognize as reasonable. The use of a GPS device to monitor Zahn's activities for twenty-six days was therefore a Fourth Amendment search under the Katz "reasonable expectation of privacy" test.

State v. Zahn, 2012 SD 19, \P 27–28, 812 N.W.2d 490, 498–99 (S.D. 2012) (emphasis added) (footnote omitted) (citation omitted).

^{299.} For a discussion of the mosaic theory in Weaver, see supra notes 252-55 and accompanying text.

^{300.} The South Dakota Supreme Court appeared to embrace mosaic theory when it invalidated an instance of prolonged warrantless GPS tracking on Fourth Amendment grounds, in part based upon Justice Alito's privacy rationale:

^{301. 389} U.S. 347 (1967).

^{302. 533} U.S. 27 (2001).

^{303.} See id. at 33-40; Katz, 389 U.S. at 351-59 (1967).

presumptive warrant requirement for such GPS searches, and said nothing about what conditions would make such a search constitutional under the Fourth Amendment.

Thus, substantial uncertainty continues to exist as to the conditions under which such GPS searches are constitutional. Most likely, such GPS tracking will be subject to one or more of the familiar Fourth Amendment requirements of a warrant, probable cause, or perhaps merely reasonable suspicion, and perhaps also one or more exceptions that are generally likely to fall under the exigency rubric. Any of these options are available. They exist in other areas of Fourth Amendment law and can easily be incorporated into the GPS context. Courts could reason that the amount of location data that GPS provides is so detailed that the highest procedural protections of a search warrant should be required. Or courts could analogize to the automobile exception and latch onto a vehicle's mobility to reason that a warrant might be too onerous, 304 and thus require only probable cause before a GPS device is installed on one and monitored. Or courts could defer to executive assertions that even probable cause is too onerous of a standard, 305 and instead analogize to Terry v. Ohio³⁰⁶ to impose a mere reasonable suspicion standard. In Jones, the United States argued that even a reasonable suspicion standard was too onerous, 307 and a court that is particularly troubled by national security concerns, for example, could carve out some basis upon which GPS tracking could be used as a matter of executive discretion, such as by invoking an exigency exception to the Fourth Amendment.

Thus, despite *Jones*'s importance, much work remains to be done to sort out the doctrinal consequences of its ruling that GPS tracking is covered by the Fourth Amendment.

B. Offense-Specific Fourth Amendment Standards

Perhaps the most innovative and surprising part of Justice Alito's concurring opinion is his incorporation of an offense-specific criteria into the formula for determining whether an objective privacy expectation exists under *Katz*. He wrote that "the use of longer term GPS monitoring in investigations of *most offenses* impinges on

^{304.} See California v. Carney, 471 U.S. 386, 390 (1985); Carroll v. United States, 267 U.S. 132, 153 (1925).

^{305.} See supra note 48 and accompanying text.

^{306. 392} U.S. 1 (1967).

^{307.} See supra note 48.

expectations of privacy,"³⁰⁸ and then expanded on this point, declaring that "[w]e also need not consider whether prolonged GPS monitoring in the context of investigations involving extraordinary offenses would similarly intrude on a constitutionally protected sphere of privacy. In such cases, long-term tracking might have been mounted using previously available techniques."³⁰⁹ Given the novelty of this new factor, which may well be in tension with a concurring opinion in Katz itself,³¹⁰ lawyers and judges are guaranteed to be interested in it, but also to struggle with it. Consequently, it is worthwhile to give further thought to what Justice Alito was seeking to accomplish, and how.

The one thing that is clear about this offense-specific standard, and bears emphasizing, is that it provides an exception to Justice Alito's temporal limit. The initial standard he applies to determining whether GPS surveillance violates an objective privacy expectation is whether it was brief or prolonged.³¹¹ Though Justice Alito sees prolonged GPS surveillance as generally violating objective privacy expectations, he uses his offense-specific standard as an exception, depriving his temporal limit of the status of a categorical rule.

Another important clue about how to apply his offense-specific standard emerges in his language that, in the context of extraordinary offenses, "long-term tracking might have been mounted using previously available techniques." This provides guidance as to his thinking because he had earlier emphasized that, prior to technological advances, practical resource constraints had limited the amount and intrusiveness of governmental searches, with the government choosing to make special efforts only in rare and significant cases. 313

^{308.} United States v. Jones, 132 S. Ct. 945, 964 (2012) (Alito, J., concurring) (emphasis added).

^{309.} Id. (emphasis added).

^{310.} See Katz v. United States, 389 U.S. 347, 360 (1967) (Douglas, J., concurring) ("There is, so far as I understand constitutional history, no distinction under the Fourth Amendment between types of crimes.... [T]he Fourth Amendment draws no lines between various substantive offenses.").

^{311.} See supra text accompanying note 205.

^{312.} Jones, 132 S. Ct. at 964 (Alito, J., concurring).

^{313.} Id. at 963-64 (explaining that "[i]n the pre-computer age... [t]raditional surveillance for any extended period of time was difficult and costly and therefore rarely undertaken.... Only an investigation of unusual importance could have justified such an expenditure of law enforcement resources."). For the unedited version of Justice Alito's language, see supra text accompanying note 286. See also supra text accompanying note 285 (reciting similar point Justice Alito made during oral argument in Jones).

These passages are revealing, and what they reveal is surprising. Contrary to what one might think upon first encountering Justice Alito's "most offenses" language, he is not using the phrase to suggest category-based distinctions between offenses. For example, he does not seem to be suggesting that Fourth Amendment distinctions will be drawn as to whether any particular governmental investigatory technique is a "search" depending upon whether the offense being investigated involves serial murder or organized crime on the one hand, or shoplifting or petty theft on the other. Rather, he seems to be suggesting that whether a Fourth Amendment "search" has occurred depends upon how important the government thinks the offense being investigated is, regardless of whether it is murder, organized crime, shoplifting, or petty theft. Crucially, the standard Justice Alito suggests for assessing governmental importance seems to be the government's willingness to devote resources to the investigation, given his language about whether "long-term tracking might have been mounted using previously available techniques."314 Thus, his offense-specific standard is really a resource-intensity standard.

There are two remarkable things about this offense-specific standard. The first is probably not too concerning, but the second is potentially quite alarming. First, it is only a proxy for the real factor of governmental importance. This is not problematic if it is an accurate proxy, and given the quotidian reality of governmental resource constraints, we can expect that it often will be. On the other hand, there is some reason for concern even here because the government has a unique and unmatched ability to bring essentially unlimited resources to problems it wishes to concentrate upon, and this is certainly true in criminal law enforcement and civil proceedings, each of which involves investigative efforts.

Second—and this is the troubling part—it is a measure over which the government has unilateral control. Thus, there is a twist here that has the potential of allowing incursions into Fourth Amendment protections because the government can manipulate this factor. To do so, it need only be willing to throw some unusual amount of resources at an investigation in order to create a record that will allow it to argue that it had deemed the investigation of unusual importance, thus satisfying Justice Alito's "extraordinary offenses" standard.

^{314.} Jones, 132 S. Ct. at 964 (Alito, J., concurring).

Exactly what efforts must be made are unclear, though Justice Alito suggests that a willingness to engage in a more thorough investigation than usual while "using previously available techniques" would be a reliable indicator. Combined with Knotts's interpretative approach, which focused on what the government could have done, rather than upon what it actually did,³¹⁵ this seems to suggest that, if the government can show that it was willing to throw sufficient traditional resources into an investigation such that it could have, would have, or did gain a similar amount of information as it could have, would have, or did using advanced technology, then the Court may well hold that objective privacy expectations are not infringed. The extent to which such a holding is dependent upon whether or not advanced technology may have played a singular role remains wholly uncertain.

Though Justice Alito does not seem to be thinking about his offense-specific distinction in terms of categorical distinctions between offenses, do not be surprised if some courts apply it that way. The reason why this seems likely to happen is that it provides a ready means of mollifying government claims that GPS surveillance must be available free of any probable cause requirement. (The United States made this very claim during oral argument in *Jones*. 316) In this view, GPS is a powerful investigative technique that must remain available as a means of developing probable cause, and applying a categorical distinction between certain types of offenses provides an easy measuring line. If this happens, hopefully it will occur only on a caseby-case basis and will be applied narrowly, such as by applying an exigency and immediacy requirement to "extraordinary offenses." In this manner, the offense-specific distinction might be cabined to apply extremely rarely, such as in high-stakes terrorism investigations, so that this exception does not swallow the Jones "search" ruling.

C. Voting Pattern

1. Why Only Five Votes for Clarifying *Katz*'s Privacy-Versus-Property Ambiguity?

An interesting mystery in *Jones* is why Justices Ginsberg, Breyer, and Kagan—all of whom joined Justice Alito's privacy-based concurring opinion—refused to join Justice Scalia's property-centric

^{315.} See supra text accompanying notes 243-44.

^{316.} See supra note 48 and accompanying text.

opinion of the Court. Justice Scalia (with Justice Sotomayor's help as the fifth vote) clearly and cleanly established that *Katz* merely supplemented a property-based theory of the Fourth Amendment with a privacy-based one, with the important consequence that it is now certain that either theory provides a basis for seeking constitutional search protections.³¹⁷ In light of the ambiguity about this point that had existed since *Katz*, Justice Scalia's approach holds the promise of expanding Fourth Amendment protections by doubling the conceptual bases upon which such safeguards can be claimed. Justice Scalia, for one, certainly sees it that way, reportedly stating during a speech that "[m]y [Jones] opinion didn't repudiate *Katz*. It is in addition "³¹⁸ He went on to describe his approach as "much more defendant friendly." ³¹⁹

One might have expected Justices Ginsberg, Breyer, and Kagan to welcome the chance to expand the bases upon which Fourth Amendment protections might be sought, and thus their refusal to do so by refraining from joining Justice Scalia's majority opinion may be significant. Possibly, they refrained because they did not agree with resolving the case through application of a property-centric trespass theory, as Justice Scalia did. Perhaps they did not join Justice Scalia because they did not feel that his trespass theory could intelligibly resolve the case while respecting the language from *United States v. Karo*³²⁰ that a mere trespass, in and of itself, does not amount to a Fourth Amendment violation.³²¹ Or perhaps their reticence stemmed from a reluctance to support such a historical approach to Fourth Amendment analysis (though they could have clarified such a qualm through a concurrence).³²² Or perhaps some other reason motivated them.

^{317.} See United States v. Jones, 132 S. Ct. 945, 952 (2012); supra note 79 and accompanying text.

^{318.} Weiss, supra note 112, at 59.

^{319.} Id.

^{320. 468} U.S. 705 (1984).

^{321.} Id. at 712-13 ("At most, there was a technical trespass on the space occupied by the beeper. The existence of a physical trespass is only marginally relevant to the question of whether the Fourth Amendment has been violated, however, for an actual trespass is neither necessary nor sufficient to establish a constitutional violation."). Justice Scalia resolved this tension by adopting a two-part property-based standard that requires (1) a physical invasion sufficient to constitute a trespass, (2) for the purpose of obtaining information. See supra note 111 and accompanying text. Thus, his Jones standard requires more than a mere trespass to establish a Fourth Amendment violation, and hence remains consistent with this aspect of Karo.

^{322.} At least with regard to Justices Ginsberg and Breyer, this possibility is undermined by their having previously joined opinions calling for historical primacy in

In any event, they did not choose to support the part of Justice Scalia's opinion that resolved the *Katz* ambiguity by clarifying that *Katz* supplemented, but did not replace, a property-centric Fourth Amendment. Their choices might be monumentally important because they leave Justice Scalia's resolution of this *Katz* ambiguity vulnerable to the loss of any single vote. They had an opportunity to do more to safeguard this portion of Justice Scalia's opinion from potential abrogation, and thus eliminate any uncertainty on this point, by specifying their support for it through a separate concurring opinion in which some or all of them could have joined. But, they did not. If they indeed supported Justice Scalia's interpretation of *Katz* on this issue, this is an unfortunate lost chance because it leaves only a bare five-Justice majority supporting his proposition. 323

2. To What Extent Does Justice Sotomayor Disagree with Justice Alito's Concurrence?

The extent to which Justice Sotomayor disagrees with Justice Alito's privacy-based approach is a critical question. This is because Justice Scalia's competing approach will have a narrower field of application. For example, it has no apparent applicability to the many forms of surveillance that do not involve physical trespass, such as other forms of location tracking or data collection. Thus, the extent to which Justice Sotomayor is willing to provide a fifth vote for Justice Alito's broader, privacy-based approach is crucially important. Justice Sotomayor's concurring opinion indicates that she has important areas of agreement, but suggests that she has some significant disagreements as well.

In terms of agreement, she shared Justice Alito's concern that it was important to be open to extending Fourth Amendment protections even in the absence of physical intrusion, which "is now unnecessary to many forms of surveillance." To address such instances, she indicated a general willingness to apply Katz's privacy approach, and specifically agreed with Justice Alito that, "at the very

Fourth Amendment analysis. See Virginia v. Moore, 553 U.S. 164, 168 (2008); Wilson v. Arkansas, 514 U.S. 927, 931 (1995). Justice Breyer, however, has qualified his support. See Wyoming v. Houghton, 526 U.S. 295, 307–08 (1999) (Breyer, J., concurring).

^{323.} See supra text accompanying note 120-21 (explaining that Justice Sotomayor provided the crucial fifth vote on this point).

^{324.} See supra notes 13-16 and accompanying text.

^{325.} United States v. Jones, 132 S. Ct. 945, 955 (2012) (Sotomayor, J., concurring).

least, 'longer term GPS monitoring in investigations of most offenses impinges on expectations of privacy.' "326

The key here is divining the meaning of her pregnant caveat "at the very least." Happily, she provided useful guidance. First, she indicated a resistance to the exception that Justice Alito carved out for brief GPS monitoring, at least to the extent that such brief monitoring could threaten privacy interests under a mosaic theory or could "chill[] associational and expressive freedoms."327 She disagreed with Justice Alito's suggestion that the government should be given the power to evade Fourth Amendment search restrictions-for either brief or prolonged GPS tracking—if it considered the investigation sufficiently important, as evidenced by the extent of traditional investigative resources the government was willing to commit.³²⁸ She expressed a willingness to more directly confront the crucial discretion question in Fourth Amendment jurisprudence, 329 stating that she "would also consider the appropriateness of entrusting to the Executive, in the absence of any oversight from a coordinate branch, a tool so amenable to misuse, especially in light of the Fourth Amendment's goal to curb arbitrary exercises of police power to and prevent 'a too permeating police surveillance.' "330 Finally, she seems much more willing to significantly reform Fourth Amendment law by revisiting the fundamentals of third-party doctrine.331

D. Relevance of Technology in "General Public Use"

In Kyllo v. United States,³³² the Supreme Court invalidated the warrantless use of a thermal imager to search a home from its exterior, and in doing so placed importance upon the imager being a piece of advanced technology that was not in "general public use." ³³³

^{326.} Id. (emphasis added) (quoting id. at 964 (Alito, J., concurring)).

^{327.} Id. at 955-56.

^{328.} See id. at 956 ("I do not regard as dispositive the fact that the Government might obtain the fruits of GPS monitoring through lawful conventional surveillance techniques."). For a review of Justice Alito's views on this subject, see Part III.B.

^{329.} I have elsewhere argued that the Supreme Court has insufficiently attended to this issue. See Arcila, Death of Suspicion, supra note 165, at 1326.

^{330.} Jones, 132 S. Ct. at 956 (Sotomayor, J., concurring) (quoting United States v. Di Re, 332 U.S. 581, 595 (1948)).

^{331.} See supra text accompanying note 227.

^{332. 533} U.S. 27 (2001).

^{333.} Id. at 34, 40. The majority and dissenting opinions disagreed about whether thermal imagers were in general public use. Compare id. at 34 ("We think that obtaining by sense-enhancing technology any information regarding the interior of the home that

Kyllo thus suggested that, when government uses technology to search, one factor in the Fourth Amendment calculus is whether the public has access to the technology and has sufficiently incorporated it into daily life.

Though *Jones* involved GPS, which is certainly an advanced technology, no opinion gave any consideration to the *Kyllo* general-public-use factor. This omission occurred even though *Jones* agreed with *Kyllo* that the Court's duty is to "assur[e] preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted." This passage appears in *Kyllo immediately* following the declaration that the thermal imager is not in general public use." Nonetheless, *Jones* ignored the general-public-use factor. *Jones*'s omission of the general-public-use factor may be due to a problem identified in the *Kyllo* dissent:

[T]he contours of [the majority's] new rule are uncertain because its protection apparently dissipates as soon as the relevant technology is "in general public use." Yet how much use is general public use is not even hinted at.... [P]utting aside its lack of clarity, this criterion is somewhat perverse because it seems likely that the threat to privacy will grow, rather than recede, as the use of intrusive equipment becomes more readily available. 336

This critique is powerfully applicable to GPS, a technology that is undoubtedly in general public use because it is ubiquitously installed in vehicles and smartphones, and is actively used by the public, and has been for many years.

Consequently, had this Kyllo factor been treated as dispositive in Jones, it appears that not a single Justice would have been able to rule as he or she did—in favor of Jones and against the United States. The dramatic impact that this Kyllo factor would have had—combined

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could not otherwise have been obtained without physical intrusion into a constitutionally protected area... constitutes a search—at least where (as here) the technology in question is not in general public use.") (internal quotation marks and citation omitted), and id. at 40 ("Where, as here, the Government uses a device that is not in general public use..."), with id. at 47 (Stevens, J., dissenting) ("Yet how much use is general public use is not even hinted at by the Court's opinion, which makes the somewhat doubtful assumption that the thermal imager used in this case does not satisfy that criterion."), and id. 47 n.5 (pointing out that the device at issue "is just an 800-number away from being rented from 'half a dozen national companies' by anyone who wants one").

^{334.} Jones, 132 S. Ct. at 950 (quoting Kyllo, 533 U.S. at 34).

^{335.} Kyllo, 533 U.S. at 34.

^{336.} Id. at 47 (Stevens, J., dissenting) (citation omitted).

with its complete failure to make any appearance whatsoever—potentially calls into question its continued viability.

E. New Standing Law(?) and Third-Party Consent

A reason for caution before introducing a new legal test is that unintended consequences may arise, and the implications that Justice Scalia's new trespassory test might have on Fourth Amendment standing may be one example. Already, one post-*Jones* decision has suggested that the new trespassory test changes standing law. In *United States v. Hanna*,³³⁷ Magistrate Torres reasoned that standing exists to litigate the trespassory theory only when "one's own personal 'effects' have been trespassed," which can be shown through ownership or exclusive use.³³⁸ He derived this new standing test by emphasizing that Justice Scalia had "expressly noted that Jones was the exclusive driver of the vehicle, and that if he was not the owner he had at least the property rights of a bailee," and that Jones had "opossessed the Jeep at the time the Government trespassorily inserted the information-gathering device."

In *Hanna*, police, lacking a warrant, had installed a GPS device when a vehicle was parked in a public lot.³⁴¹ They monitored the GPS device on only one discrete occasion about a week later, to locate the vehicle, which at the time was empty and in a parking complex.³⁴² Because neither of the two defendants seeking suppression had owned the vehicle (another co-conspirator owned it), and the only GPS location data police used was of the parked vehicle's location when it was empty and therefore "not in possession of anyone," Magistrate Torres recommended that the suppression motions be denied for lack of Fourth Amendment standing.³⁴³

This take on standing under the trespassory test seems plausible (though it appears too stringent, as I detail below) given the traditional Fourth Amendment standing test, which requires that a defendant's own Fourth Amendment interests be implicated before standing is granted.³⁴⁴ In a pre-Katz case, which seems an appropriate

^{337.} No. 11-20678-CR, 2012 WL 279435 (S.D. Fla. Jan. 30, 2012).

^{338.} Id. at *3.

^{339.} Id. (quoting Jones, 132 S. Ct. at 949 n.2) (internal quotation marks omitted).

^{340.} Id. (quoting Jones, 132 S. Ct. at 952).

^{341.} Id. at *1.

^{342.} Id. at *2.

^{343.} Id. at *3-5.

^{344.} See Jones v. United States, 362 U.S. 257, 261 (1960), overruled by United States v. Salvucci, 448 U.S. 83 (1980).

touchstone given that the *Jones* trespassory test resurrects the pre-Katz property-centric view of the Fourth Amendment, the Supreme Court had defined standing as requiring that the litigant be the "victim" whose rights were violated ("'aggrieved by an unlawful search and seizure'") and "against whom the search was directed."³⁴⁵ Magistrate Torres's implicit suggestion that at most only the vehicle owner's Fourth Amendment interests were implicated when police installed the GPS device and monitored it seems defensible in light of the historical standing inquiry because the installation and monitoring both occurred when the vehicle was empty and parked in a public location. Under those conditions, it is hard to envision anyone apart from the owner whose Fourth Amendment rights were directly implicated by the police actions at the time they occurred.

This outcome raises a plethora of scenarios in which the government can take advantage of standing doctrine to subvert any procedural requirements that might eventually be imposed on GPS tracking, particularly when consent doctrine is also in play. The beeper cases of *United States v. Knotts*³⁴⁶ and *United States v. Karo*³⁴⁷ provide prime examples of the important role that third-party consent can play. In each of those cases, law enforcement placed the beepers into containers with the consent of the owner and before the containers came into the defendants' possession. Those consents authorized the beepers' presence and thus became crucial pillars in the rulings against the defendants, a point Justice Scalia emphasized in *Jones*. The secondary of the scalia emphasized in *Jones*.

Similarly, after *Jones*, law enforcement has every incentive to leverage third-party consent, such as in cases involving informants or rental car companies, to install GPS devices onto vehicles or in containers. As in *Knotts* and *Karo*, the third-party consent will suffice to authorize the GPS device's presence, as Justice Scalia importantly signaled in *Jones* by the way he emphasized the role of consent in those cases. Then, a margin for error might be obtained through the government asserting a standing challenge in an effort to further insulate the GPS installation and use from a constitutional challenge.

^{345.} Id. (quoting FED. R. CRIM. P. 41(e) (1956)).

^{346. 460} U.S. 276 (1983).

^{347. 468} U.S. 705 (1984).

^{348.} Karo, 468 U.S. at 707-08; Knotts, 460 U.S. at 278.

^{349.} See United States v. Jones, 132 S. Ct. 945, 952 (2012) (reviewing Karo and Knotts and emphasizing third-party consent that law enforcement obtained in each case).

And, in instances where third-party consent is unavailable, standing doctrine can get the job done on its own, as *Hanna* demonstrates.

While *Hanna* is an unusual case in that the GPS device was monitored only once and momentarily, and by sheer coincidence when the vehicle was empty and parked, a new standing doctrine could have sufficient teeth to have some meaningful application even in more common scenarios. This is particularly true if *Hanna*'s new standing rules are accepted, as the twin factors of ownership or exclusive use impose a high bar. What if, for example, police in *Hanna* had obtained location data pertaining to one of the defendants while he was driving? Neither defendant owned the vehicle. Even if the defendants were frequent, authorized drivers of the vehicle (*Hanna* ambiguously states only that "these Defendants were permitted to use" the vehicle³⁵⁰), none might satisfy the exclusive-use test either given that numerous individuals would have been authorized users, which seems anathema to exclusivity.

This outcome presumes that *Hanna*'s ownership or exclusive-use factors are correct, but the latter is vulnerable because it puts too much emphasis upon Justice Scalia's use in *Jones* of that concept, without acknowledging its context, in which Justice Scalia indicates that rights amounting to those of a bailee are sufficient, and also refers to possession.³⁵¹ Bailee and possessory rights exist in contexts far short of exclusive use, and thus *Hanna*'s exclusive-use prong sets the bar far too high and should be rejected.

F. No Exclusion for Violation of Warrant "Technicalities"?

In *Jones*, Justice Alito signaled that he is interested in continuing to limit the exclusionary rule by embracing federal circuit jurisprudence that draws a distinction between search warrant violations that implicate the Fourth Amendment as opposed to other non-constitutional sources. Under this theory, only violations that directly implicate the Fourth Amendment lead to exclusion. Other violations that might be termed "technical" or "procedural" because the relevant obligation stems from a non-constitutional source do not.

As Justice Alito explained, *Jones* involved two search warrant violations:

^{350.} United States v. Hanna, No. 11-20678-CR, 2012 WL 279435, at *2 (S.D. Fla. Jan. 30, 2012).

^{351.} Jones, 132 S. Ct. at 949 n.2 & 952.

In this case, the agents obtained a warrant, but they did not comply with two of the warrant's restrictions: They did not install the GPS device within the 10-day period required by the terms of the warrant and by Fed. Rule Crim. Proc. 41(e)(2)(B)(i), and they did not install the GPS device within the District of Columbia, as required by the terms of the warrant and by 18 U.S.C. §3117(a) and Rule 41(b)(4). 352

Many federal circuits have ruled that only violations of the Fourth Amendment itself justify exclusion, and therefore violations of non-constitutionally imposed obligations—such as those that flow only from the Federal Rules of Criminal Procedure or statutes, for example—do not lead to suppression.³⁵³ These cases are of a piece with a larger Fourth Amendment jurisprudence that minimizes the exclusionary rule by focusing solely on its deterrence function,³⁵⁴ such as the legion of decisions that deny suppression even for defects in particularity—which clearly implicates the Fourth Amendment—if they are deemed minor or technical.³⁵⁵ When governmental actors violate obligations that Rule 41 imposes, courts avoid suppression on the theory that Rule 41's purpose was merely to codify or implement the Fourth Amendment's exclusionary rule;³⁵⁶ it "was not intended to create new substantive grounds for suppressing evidence."³⁵⁷ Were

^{352.} Id. at 964 n.11 (Alito, J., concurring); see supra note 23 and accompanying text.

^{353.} Numerous federal circuits have denied suppression for the violation of search warrant conditions that the Federal Rules of Criminal Procedure impose. See, e.g., United States v. Gerber, 994 F.2d 1556, 1559-60 (11th Cir. 1993); United States v. Twenty-Two Thousand, Two Hundred Eighty Seven Dollars (\$22,287.00) U.S. Currency, 709 F.2d 442, 446-49 (6th Cir. 1983); United States v. Stefanson, 648 F.2d 1231, 1235 (9th Cir. 1981); United States v. Gitcho, 601 F.2d 369, 372 (8th Cir. 1979); United States v. Mendel, 578 F.2d 668, 673-74 (7th Cir. 1978); United States v. Burke, 517 F.2d 377, 386-87 (2d Cir. 1975). Search warrant conditions can also flow from statute, such as the federal wiretap statute, and, similarly, their violation may or may not result in suppression. See United States v. Chavez, 416 U.S. 562, 569-70 (1974); United States v. Giordano, 416 U.S. 505, 524 (1974); see also United States v. Lomeli, 676 F.3d 734, 739-43 (8th Cir. 2012) (concluding that failure to identify Department of Justice authorizing official in warrant application was a core violation of Federal Wiretap Act, which required suppression, and rejecting argument for application of good-faith exception); United States v. Gray, 521 F.3d 514, 524-28 (6th Cir. 2008) (holding that failure to properly identify Department of Justice authorizing official in warrant application did not require suppression).

^{354.} See, e.g., Herring v. United States, 555 U.S. 135, 140-44 (2009); Stone v. Powell, 428 U.S. 465, 485-86 (1976); United States v. Calandra, 414 U.S. 338, 347-48 (1974).

^{355.} See Gitcho, 601 F.2d at 371-72 (collecting cases).

^{356.} See Cent. S.C. Chapter, Soc'y of Prof'l Journalists, Sigma Delta Chi v. U.S. Dist. Court for the Dist. of S.C., 551 F.2d 559, 564 (4th Cir. 1977).

^{357.} United States v. Roberts, 852 F.2d 671, 673 (2d Cir. 1988). Similarly, one federal circuit takes a "two-tiered" approach to suppression for violations of search warrant requirements that the federal wiretap act imposes: "first identify∏ the omission or defect

this theory applied in *Jones*, presumably it would dispose of the case because the Fourth Amendment certainly does not impose the detailed ten-day temporal limit included in the warrant, and may not impose the geographic restriction either. (At a minimum, however, the United States would have to overcome a waiver argument in *Jones* given that it never asserted this issue.³⁵⁸)

If the Supreme Court follows Justice Alito's lead and further limits the exclusionary rule along these grounds, it will need to be prepared to flesh out the standards that apply. For example, circuit courts will suppress evidence even for a non-constitutional search warrant violation if, at the time of the search, the government lacked probable cause or acted in bad faith, ³⁵⁹ or similarly where:

(1) there was "prejudice" in the sense that the search might not have occurred or would not have been so abrasive if the rule had been followed, or (2) there is evidence of intentional and deliberate disregard of a provision in the Rule.³⁶⁰

The Court would need to decide whether to endorse or reject these standards, or impose alternatives.

CONCLUSION

Jones has historic importance if for no other reason than that Justice Scalia's majority opinion resolves the infamous Katz conundrum regarding whether property continues to have a pride of place in Fourth Amendment jurisprudence after Katz introduced privacy into the pantheon. Perhaps even more significantly, Jones has the potential to be of even greater historical importance due to the doctrinal clues it provides, and paths it has set out, for the future of Fourth Amendment jurisprudence, certainly in the technological surveillance field but quite possibly more broadly as well. Jones was a challenging case because so many disparate but often interrelating Fourth Amendment doctrines were implicated, and the variety of jurisprudential approaches manifested in the final Jones opinions provide important lessons and insights about how Fourth Amendment law will evolve.

at issue (i.e., whether the challenged document is insufficient on its face), and second, determin[e] whether that defect violates a core statutory requirement or whether it is a mere technical defect not warranting suppression." *Lomeli*, 676 F.3d at 739.

^{358.} See United States v. Jones, 132 S. Ct. 945, 964 n.11 (2012) (Alito, J., concurring).

^{359.} See United States v. Gerber, 994 F.2d 1556, 1560 (11th Cir. 1993).

^{360.} United States v. Stefanson, 648 F.2d 1231, 1235 (9th Cir. 1981); see also Gitcho, 601 F.2d at 372; United States v. Mendel, 578 F.2d 668, 673 (7th Cir. 1978).