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THE REAL RULES OF “SEARCH” INTERPRETATIONS

Luke M. Milligan*

ABSTRACT

The Supreme Court tells us that a Fourth Amendment “search” is a matter of “reasonable expectations of privacy.” Scholars meanwhile debate “search” on the axes of value, doctrine, institutionalism, interpretation, and judicial politics. Yet neither prevailing judicial doctrine nor normative academic discourse has had much impact on the Court’s actual “search” interpretations. This article suggests that this static between “paper” rules and “real” rules (and, more generally, normative prescriptions and judicial decisionmaking) is a function of a deep constraint on the judiciary’s capacity to form “search” doctrine in free accordance with evolving juridical and policy norms. This constraint is one that I call the “atomic code.”

The atomic code has three properties. First, justices evaluate each “search” issue without regard for coherence across the spectrum of “search” issues. In effect, the “search doctrine” is simply an “aggregation of search ‘atoms.’” A second property of the atomic code is that justices attribute content to new search atoms through analogies to old search atoms. While initially every search atom is dormant, over time a justice, either informally or through adjudication, will gradually attribute content—“search” or “non-search”—to her atoms by drawing from the content of analogous search atoms. By this account, the holding in *Olmstead v. United States* reflects nothing grander than the endorsement by five justices of an analogy between wiretapping and visual surveillance from a public vantage point. The third property of the atomic code is that a justice will not reassess an atom’s content once she has made her initial attribution. One might think of this as *stare decisis writ small*: a justice (but not necessarily the Court) will decide like cases alike. And so the overturning of “search” precedent is not the result of a majority’s new attribution of content to their search atoms, but, more accurately, a new majority of initial attributions.

I should emphasize at the outset that the atomic code is not simply the result of a vague doctrinal test, suboptimal or inaccessible empirical data on “privacy expectations,” or judicial politics. Rather, the code’s roots run deeper. It is in large part attributable to two factors. One is the concreteness of the term “search.” The other is the justices’ preference for a calibrated retroactivity of criminal procedure rules. These two factors, more than any others, have caused justices to treat the “search” doctrine as atomistic, to attribute content through analogical reasoning, and to fix content upon attribution.

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INTRODUCTION

What is a Fourth Amendment “search”?¹ The Supreme Court still tells us that “search” is a matter of “reasonable expectations of privacy.”² Scholars meanwhile

¹ The Fourth Amendment, in pertinent part, provides that “[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated” U.S. CONST. amend. IV.

² See, e.g., *City of Ontario v. Quon*, 130 S. Ct. 2619 (2010); *Kyllo v. United States*, 533 U.S. 27 (2001); *Smith v. Maryland*, 442 U.S. 735 (1979). *But see* *United States v. Jones*, 132 S. Ct. 945 (2012) (supplementing the *Katz* test with a “physical trespass while trying to gain information” standard).

debate “search” on the axes of value,³ doctrine,⁴ institutionalism,⁵ interpretation,⁶ and judicial politics.⁷ Yet neither prevailing judicial doctrine nor normative academic discourse has had much impact on the Court’s actual “search” interpretations.⁸ This article suggests that this static between “paper” rules and “real” rules (and, more generally, normative prescriptions and judicial decisionmaking) is a function of a deep constraint on the judiciary’s capacity to form “search” doctrine in free

³ See, e.g., Akhil Reed Amar, *Fourth Amendment First Principles*, 107 HARV. L. REV. 757, 759–60 (1994) (truth); Thomas K. Clancy, *What Does the Fourth Amendment Protect: Property, Privacy, or Security?*, 33 WAKE FOREST L. REV. 307, 308–09 (1998) (security); Morgan Cloud, *The Fourth Amendment During the Lochner Era: Privacy, Property, and Liberty in Constitutional Theory*, 48 STAN. L. REV. 555, 616–17 (1996) (property); Raymond Shih Ray Ku, *The Founders’ Privacy: The Fourth Amendment and the Power of Technological Surveillance*, 86 MINN. L. REV. 1325, 1326–27, 1331 (2002) (excessive government power); Jed Rubenfeld, *The End of Privacy*, 61 STAN. L. REV. 101, 104–05 (2008) (security); William J. Stuntz, *The Substantive Origins of Criminal Procedure*, 105 YALE L.J. 393, 447 (1995) (due process).

⁴ 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, 122–23 (2002) (criticizing the “knowing exposure” doctrine); Christopher Slobogin, *The World Without a Fourth Amendment*, 39 UCLA L. REV. 1, 4–5 (1991) (advocating a sliding scale requiring proportionality between likelihood of success and intrusiveness); Daniel J. Solove, *Fourth Amendment Pragmatism*, 51 B.C. L. REV. 1511, 1515 (2010) (calling for a shift in emphasis from “Coverage” to “Procedural”). See generally Craig M. Bradley, *Two Models of the Fourth Amendment*, 83 MICH. L. REV. 1468, 1470 (1985) (describing critics who “all play the Court on its own field” and “argu[e] as tenth Justices that the doctrines should be tinkered with in different ways than the Court has done”).

⁵ Orin S. Kerr, *The Fourth Amendment and New Technologies: Constitutional Myths and the Case for Caution*, 102 MICH. L. REV. 801, 806 (2004) (advocating for deference to legislatures); Daniel J. Solove, *Fourth Amendment Codification and Professor Kerr’s Misguided Call for Judicial Deference*, 74 FORDHAM L. REV. 747, 747–48 (2005) (challenging Professor Kerr’s argument).

⁶ Clark D. Cunningham, *A Linguistic Analysis of the Meanings of “Search” in the Fourth Amendment: A Search for Common Sense*, 73 IOWA L. REV. 541, 542 (1988) (advocating for a “common sense” semantics analysis); Thomas Y. Davies, *Recovering the Original Fourth Amendment*, 98 MICH. L. REV. 547, 552–53 (1999) (detailing an originalist interpretation).

⁷ Orin S. Kerr, *An Equilibrium-Adjustment Theory of the Fourth Amendment*, 125 HARV. L. REV. 476 (2011) (describing the justices’ policy interest in maintaining law enforcement status quo); David Sklansky, *Back to the Future: Katz, Kyllo, and Common Law*, 72 MISS. L.J. 143, 161 (2002) (stating that some of the justices push “an alternative vision of search . . . jurisprudence, anchored securely in eighteenth-century common law”); William Stuntz, *Warrants and Fourth Amendment Remedies*, 77 VA. L. REV. 881, 912–13 (1991) (explaining that courts are willing to manipulate doctrine to avoid the application of the exclusionary rule).

⁸ There are of course exceptions. Compare *City of Ontario v. Quon*, 130 S. Ct. 2619, 2629 (2010) (stating that “prudence counsels caution” before “elaborating too fully on the Fourth Amendment implications of emerging technology”) with Kerr, *supra* note 5 (making “the case for caution” when the Court is applying the Fourth Amendment to new technologies).

accordance with evolving juridical and policy norms.⁹ This constraint is one that I call the “atomic code.”

The atomic code has three properties. First, justices evaluate each “search” issue without regard for coherence across the spectrum of “search” issues.¹⁰ In effect, the “search doctrine” is simply an “aggregation of search ‘atoms.’” A second property of the atomic code is that justices attribute content to new search atoms through analogies to old search atoms.¹¹ While initially every search atom is dormant, over time a justice, either informally or through adjudication, will gradually attribute content—“search” or “non-search”—to her atoms by drawing from the content of analogous search atoms.¹² By this account, the holding in *Olmstead v. United States*¹³ reflects nothing grander than the endorsement by five justices of an analogy between wire-tapping and visual surveillance from a public vantage point.¹⁴ The third property of the atomic code is that a justice will not reassess an atom’s content once she has made her initial attribution.¹⁵ One might think of this as *stare decisis writ small*: a justice (but not necessarily the Court) will decide like cases alike. And so the overturning of “search” precedent is not the result of a majority’s new attribution of content to their search atoms, but, more accurately, a new majority of initial attributions.¹⁶

I should emphasize at the outset that the atomic code is not simply the result of a vague doctrinal test, suboptimal or inaccessible empirical data on “privacy expectations,” or judicial politics.¹⁷ Rather, the code’s roots run deeper. It is in large part

⁹ See *Lochner v. New York*, 198 U.S. 45, 76 (1905) (Holmes, J., dissenting) (“General propositions do not decide concrete cases.”); KARL LLEWELLYN, *JURISPRUDENCE: REALISM IN THEORY AND PRACTICE* 21–22 (1930) (distinguishing “paper rules” from “real rules”).

¹⁰ See *infra* Part II.A.2.a.

¹¹ See *infra* Part II.A.2.b.

¹² Analogical attributions will inevitably bring *some* degree of coherence to “search” case law. This does not, however, undermine the claim that “search” decisionmaking is atomistic. First, only a small subset of cases will be resolved through analogical reasoning. See *infra* Part III.C (discussing justices’ practice of reasserting previous commitments). Second, even when the justices turn to analogical reasoning, the objective of such reasoning (and thus their results) is rarely to facilitate coherence. See *infra* Part III.A (discussing the ways in which justices choose from a menu of analogies). As a result, any coherence in a justice’s “search” decisionmaking will be by happenstance and almost certainly confined to narrow bands of “search” case law.

¹³ 277 U.S. 438, 469 (1928).

¹⁴ *Id.* See *infra* Part III.A.1.

¹⁵ See *infra* Part II.A.2.b.

¹⁶ There are two notable exceptions on this point. The first was Justice Douglas’s position regarding wiretaps between *Goldman v. United States*, 316 U.S. 129 (1942) and *On Lee v. United States*, 343 U.S. 747, 762 (1952) (Douglas, J., dissenting). The other was Justice Harlan’s position on informants between *Lopez v. United States*, 373 U.S. 427 (1963) and *United States v. White*, 401 U.S. 745, 768–77 (1971) (Harlan, J., dissenting). For further discussion see *infra* Part III.B.

¹⁷ For a discussion of these prevailing descriptions for “search” dysfunction, see *infra* Part I.B.3.

attributable to two factors. One is the concreteness of the term “search.”¹⁸ The other is the justices’ preference for a calibrated retroactivity of criminal procedure rules.¹⁹ These two factors, more than any others, have caused justices to treat the “search” doctrine as atomistic, to attribute content through analogical reasoning, and to fix content upon attribution.

One might infer that justices, bound by the atomic code, are never able to incorporate their juridical and policy preferences (which include, for some, “reasonable expectations of privacy”) into their “search” analyses. But this would be an overstatement. Justices, after all, regularly hold differing views about: (1) the scope of certain atoms;²⁰ (2) the priority of atoms in a given case;²¹ and (3) the best analogy with which to assign content to dormant atoms.²² Through the disposition of these three issues, the justices’ juridical and policy preferences (regarding structure, doctrine, interpretation, etc.) will impact their interpretation of “search.” For instance, a justice can often prioritize a particular old atom (with favorable content) over another old atom (with unfavorable content).²³ Or she might artificially cabin the scope of an old atom with unfavorable content in order to claim a new atom whose content will, with the right analogy, be more favorable.²⁴

Despite this discretion, there remain firm limits on a justice’s ability to manipulate the atomic code. First, there will be times when a justice feels uncomfortable dissecting the “search” atoms to the degree necessary to reach a preferred outcome.²⁵ Second, the justice’s juridical and policy preferences will not always call for the same outcome.²⁶ And when faced with such “hard” cases a justice will often defer to a sincere analysis of the scope, priority, and analogical issues concomitant to the atomic code. Third, the constraints of the atomic code strengthen with time: the longer the justice serves, the more attributions the justice makes, and the more difficult it becomes for the justice to manipulate the atomic code to reach preferred outcomes.²⁷

To demonstrate the role of the atomic code this article draws primarily from Supreme Court opinions. Unfortunately, any positive account of a discrete area of Supreme Court decisionmaking will be vulnerable to methodological criticisms.²⁸

¹⁸ See *infra* Part II.B.1.

¹⁹ See *infra* Part II.B.2.

²⁰ See *infra* note 445 and accompanying text.

²¹ See *infra* note 446 and accompanying text.

²² See *infra* note 447 and accompanying text.

²³ See *infra* note 448 and accompanying text.

²⁴ See *infra* note 449 and accompanying text.

²⁵ See *infra* notes 450–51 and accompanying text.

²⁶ See *infra* notes 182–89 and accompanying text.

²⁷ See *infra* note 453 and accompanying text.

²⁸ See, e.g., Theodore W. Ruger, Pauline T. Kim, Andrew D. Martin & Kevin M. Quinn, *The Supreme Court Forecasting Project: Legal and Political Science Approaches to Predicting Supreme Court Decisionmaking*, 104 COLUM. L. REV. 1150, 1150 (2004) (comparing prediction rates of legal experts (59.1%) and a statistical model (75%)). See generally WALTER F.

Its author will be unable to produce and analyze large data sets (there are not enough cases). Nor can he, for obvious reasons, draw from surveys regarding justices' "real" motives.²⁹ With that said, the alternatives seem inadequate. For to simply forego positive accounts of discrete areas of Supreme Court decisionmaking, or to artificially bundle areas of decisionmaking (across doctrines or jurisdictions) in order to generate a statistically significant sample size, would hold little appeal. While this qualitative methodology will surely leave some unsatisfied, it is, under present circumstances, as good as it gets.

The article proceeds in three parts. Part I introduces the two dominant historical phenomena of "search" interpretation: the arc of *Olmstead*³⁰ and the failure of *Katz*.³¹ Part II unveils a new positive account for these phenomena. Intimated in Justice Kennedy's recent majority opinion in *City of Ontario v. Quon*,³² the atomic code holds that each justice treats the "search" doctrine as a collection of search "atoms," assigns content to her atoms through analogical reasoning, and does not reassess the content of old atoms once there has been an initial attribution. Part III then demonstrates the descriptive force of the atomic code in both the pre- and post-*Katz* eras. This part highlights how the code's interpretive guidelines inhibit not only the justices' application of "paper" rules (such as *Katz*'s objective and evolving privacy standard) but, more generally, the justices' incorporation of contending normative theories into "search" decisionmaking.³³

I. FOURTH AMENDMENT "SEARCH" PHENOMENA

Fourth Amendment "search" commentary has largely centered on two interpretive phenomena. The first is the so-called "*Olmstead* era."³⁴ The second is the failure of the *Katz* decision to fulfill its promise to impose an evolving and objective standard of privacy.³⁵ Any universal explanation of the Court's "search" interpretations must, at the very least, account for these two phenomena. This part briefly tracks the arc of *Olmstead* and the failure of *Katz*.

MURPHY & JOSEPH TANENHAUS, *THE STUDY OF PUBLIC LAW* 19 (1972) (stating that the "mood of behavioralism," with its strong emphasis on "quantification" and "empirical theory," has "ebbed and flowed through much of the history of American political science").

²⁹ See, e.g., WALTER F. MURPHY, *CONGRESS AND THE COURTS* 153 (1962) (discerning judicial motives through opinions and private papers).

³⁰ *Olmstead v. United States*, 277 U.S. 438 (1928).

³¹ *Katz v. United States*, 389 U.S. 347 (1967). See *infra* Part I.

³² 130 S. Ct. 2619 (2010). The atomic code was reaffirmed, to varying degrees, by the Court's decisions in *Davis v. United States*, 131 S. Ct. 2419 (2011), and *United States v. Jones*, 132 S. Ct. 945 (2012). See *infra* Part II.A.

³³ See *infra* Part III.

³⁴ See generally *United States v. White*, 401 U.S. 745, 774 (Harlan, J., dissenting) (referring to the *Olmstead* period as an "era of Fourth Amendment jurisprudence").

³⁵ See *infra* Part I.B.2.

A. *Arc of Olmstead*

The *Olmstead* era spanned those years (1928–1967) when the Court held that electronic eavesdropping without a physical intrusion into a protected area was not a Fourth Amendment “search.”³⁶ This period was further marked by judicial intimations (though not explicit holdings) that a “conversation” cannot be the subject of a constitutional “search.”³⁷

1. The *Olmstead* Decision

In the age of Prohibition, Roy Olmstead conspired to import, possess, and sell intoxicating liquors.³⁸ Evidence against him included incriminating telephone conversations intercepted by wiretaps.³⁹ The Supreme Court described the surveillance as follows:

Small wires were inserted along the ordinary telephone wires from the residences of four of the petitioners and those leading from the chief office. The insertions were made without trespass upon any property of the defendants. They were made in the basement of the large office building. The taps from house lines were made in the streets near the houses.⁴⁰

Upon indictment for various crimes relating to the National Prohibition Act,⁴¹ Olmstead moved to suppress the intercepted conversations as the fruits of an unconstitutional search.⁴² His motion was denied, he was convicted, and the Supreme Court granted certiorari on the issue of whether the warrantless use of wiretaps violated the Fourth Amendment.⁴³

Chief Justice Taft, writing for a one-justice majority, began with a discussion of the Court’s recent expansions of the Fourth and Fifth Amendments.⁴⁴ He emphasized the broadening definition of “seizure,” the “mere evidence” rule, and the exclusionary rule.⁴⁵ The heart of Taft’s opinion, however, was his distinction between the government action at issue in *Olmstead* and that at issue in an earlier case,

³⁶ See *Lopez v. United States*, 373 U.S. 427 (1963); *On Lee v. United States*, 343 U.S. 747 (1952); *Goldman v. United States*, 316 U.S. 129 (1942); *Olmstead v. United States*, 277 U.S. 438 (1928).

³⁷ For a discussion of the debate over the scope of *Olmstead*, see *infra* Part I.A.2.

³⁸ *Olmstead*, 277 U.S. at 455.

³⁹ *Id.* at 439.

⁴⁰ *Id.* at 456–57.

⁴¹ *Id.* at 455.

⁴² *Id.* at 439–40.

⁴³ *Id.* at 455.

⁴⁴ *Id.* at 458–65.

⁴⁵ *Id.* at 455–68 (citing *Gouled v. United States*, 255 U.S. 298 (1921); *Silverthorne Lumber Co. v. United States*, 251 U.S. 385 (1920); *Boyd v. United States*, 116 U.S. 616 (1886)).

Gouled v. United States.⁴⁶ In *Gouled*, a “search” occurred where “[t]here was actual entrance into the private quarters of defendant and the taking away of something tangible.”⁴⁷ “Here,” wrote Taft, “we have testimony only of voluntary conversations secretly overheard.”⁴⁸

The cautious reader finds that Taft distinguished *Gouled* on two planes.⁴⁹ The first concerned the immateriality of Olmstead’s conversations.⁵⁰ “The Amendment itself,” wrote Taft, “shows that the search is to be of material things—the person, the house, his papers, or his effects.”⁵¹ And “[t]he interest of liberty,” he concluded, “can not justify enlargement of the language employed . . . to apply the words search and seizure as to forbid hearing or sight.”⁵²

The second plane of Taft’s distinction is the absence of a physical intrusion into an area protected by the Constitution.⁵³ Relying again on the text of the Fourth Amendment, Taft wrote:

The language of the Amendment can not be extended and expanded to include telephone wires reaching to the whole world from the defendant’s house or office. The intervening wires are not part of his house or office any more than are the highways along which they are stretched.⁵⁴

“Neither the cases we have cited,” wrote Taft, “nor any of the many federal decisions brought to our attention hold the Fourth Amendment to have been violated as against a defendant, unless there has been . . . an actual physical invasion of his house ‘or curtilage’ for the purpose of making a seizure.”⁵⁵ He then concluded that “one who installs in his house a telephone instrument with connecting wires intends to project his voice to those quite outside, and that the wires beyond his house and messages while passing over them are not within the protection of the Fourth Amendment.”⁵⁶

Taft’s separation of *Gouled* and *Olmstead*—on the dual plane of immateriality and physical intrusion into a constitutionally protected area—reflected the majority’s

⁴⁶ 255 U.S. 298 (1921).

⁴⁷ *Olmstead*, 277 U.S. at 464.

⁴⁸ *Id.*

⁴⁹ See Anthony G. Amsterdam, *Perspectives on the Fourth Amendment*, 58 MINN. L. REV. 349, 381–82 (1974) (noting the dual reasoning of Chief Justice Taft’s majority opinion).

⁵⁰ *Id.* at 382 (explaining that the *Olmstead* majority’s first line of reasoning was that “the ear cannot commit a search or seizure”).

⁵¹ *Olmstead*, 277 U.S. at 464.

⁵² *Id.* at 465.

⁵³ Amsterdam, *supra* note 49, at 382 (stating that the *Olmstead* majority’s second line of reasoning was that “the tap of the telephone wire was not an intrusion into any area protected by the Constitution”).

⁵⁴ *Olmstead*, 277 U.S. at 465.

⁵⁵ *Id.* at 466.

⁵⁶ *Id.* Justices Holmes, Brandeis, Stone, and Butler each wrote separate dissents. For a discussion of these dissents, see *infra* Part III.A.1.

choice between contending analogies. The Government pressed the Court to analogize the wiretapping of *Olmstead* to traditional visual surveillance from a lawful vantage point.⁵⁷ *Olmstead*, for his part, analogized the government’s action to the opening of postal mail.⁵⁸ A majority of justices, in the end, endorsed the government’s analogy. The majority explained that the wiretapping of *Olmstead*’s conversations, like visual surveillance from a lawful vantage point, (1) did not involve a physical invasion of a house, office, or curtilage; and (2) did not capture material items.⁵⁹ Based on this analogical reasoning the majority concluded that *Olmstead* had not been “searched” pursuant to the Fourth Amendment.⁶⁰

2. The *Olmstead* Era

To discuss the *Olmstead* “era” one must be careful to clarify what is meant by “*Olmstead*.” Because the *Olmstead* majority distinguished *Gouled* on two planes,⁶¹ it was left for future courts to hash out which of Taft’s distinctions were sufficient conditions for a “non-search” in the context of electronic eavesdropping.⁶² Future justices uniformly read *Olmstead* to hold that the lack of a physical intrusion into a constitutionally protected area was a sufficient condition to render electronic eavesdropping a “non-search.”⁶³ The real disagreement among the justices centered on the

⁵⁷ *Olmstead*, 277 U.S. at 447–52 (citing *Hester v. United States*, 265 U.S. 57 (1924)) (holding that visual surveillance from open fields does not violate the Fourth Amendment).

⁵⁸ *Id.* at 464 (“It is urged that the language of Mr. Justice Field in *Ex Parte Jackson* . . . offers an analogy.”); see *Ex Parte Jackson*, 96 U.S. 727 (1878) (holding that the Fourth Amendment is applicable to sealed letters).

⁵⁹ *Olmstead*, 277 U.S. at 466.

⁶⁰ *Id.* Although *Olmstead* held that conversations were not “persons, houses, papers, or effects,” the “basis” of the opinion was that wiretapping without a physical trespass is not a “search.” *Id.* Chief Justice Taft’s opinion states plainly that, in *Olmstead*’s case “[t]here was no searching.” *Id.* at 464. Moreover, there would have been no other reason for the majority to emphasize the absence of a trespass. Such emphasis would have been unnecessary, and only barely relevant, to establish the simple claim that “conversations” are not encompassed within “persons, houses, papers, or effects.” See *Berger v. New York*, 388 U.S. 41, 51 (1967) (distinguishing “[t]he basis of the [*Olmstead*] decision” from mere “[s]tatements in the opinion that a conversation passing over a telephone wire cannot be said to come within the Fourth Amendment’s enumeration of ‘persons, houses, papers, and effects’”); *Lopez v. United States*, 373 U.S. 427, 458 (1963) (Brennan, J., dissenting) (“[The *Olmstead* holding] rested on the propositions that there had been no search because no trespass had been committed against the petitioners . . .”).

⁶¹ See *supra* Part I.A.1.

⁶² See, e.g., *On Lee v. United States*, 343 U.S. 747, 753 (1952) (stating that there is a “non-search” when the government uses “mechanical or electronic devices designed to overhear or intercept conversation, at least where access to the listening post was not obtained by illegal methods” (emphasis added)). Debate on this point manifested in the opinions in *Berger v. New York*, 388 U.S. 41 (1967). Compare *id.* at 64–86 (Douglas, J., concurring) with *id.* at 70–89 (Black, J., dissenting).

⁶³ See *Silverman v. United States*, 365 U.S. 505, 510 (1961) (“The absence of a physical invasion of the petitioner’s premises was also a vital factor in the Court’s decision in *Olmstead*

relevance of Taft's emphasis on "immateriality."⁶⁴ For some, "immateriality" went to the core of *Olmstead*.⁶⁵ These justices and commentators read *Olmstead* as "holding" that electronic eavesdropping (even when accompanied by a physical trespass) was always a "non-search." This interpretation is to be contrasted with the more common reading that the "immateriality" discussion was not a "holding" but simply a "statement."⁶⁶

The latter reading is the better one. Taft's introductory sentence is instructive: "[T]he hearing should be confined to the single question of whether the use of evidence of private telephone conversations between the defendants and others, *intercepted by means of wire tapping*, amounted to a violation of the Fourth and Fifth Amendments."⁶⁷ Had Taft meant to hold that conversations could never be "searched" or "seized," there would have been no reason for him to "confine" the matter to the "means of wire-tapping." It must also be remembered that Taft cabined the majority holding to the interception of messages "while passing over" telephone wires beyond the house.⁶⁸ This reaffirms that the holding of "non-search" was not intended to extend to audio information captured during a physical intrusion into a constitutionally protected area.⁶⁹ Perhaps due to this limiting language, none of the Court's post-*Olmstead* holdings rested on the immaterial nature of conversations.⁷⁰ For these reasons, this article

v. *United States*, 277 U.S. 438."); *id.* ("[I]n both *Goldman* and *On Lee* the Court took pains explicitly to point out that the eavesdropping had not been accomplished by means of an unauthorized physical encroachment within a constitutionally protected area.").

⁶⁴ *Olmstead*, 277 U.S. at 466.

⁶⁵ See *Berger*, 388 U.S. at 78 (Black, J., dissenting) ("[T]he *Olmstead* holding that the Fourth Amendment does not apply to efforts to hear and obtain oral conversations has never been overruled by this Court.").

⁶⁶ See *id.* at 51 (majority opinion) (distinguishing "[t]he basis of the [*Olmstead*] decision" from "[s]tatements in the opinion that a conversation passing over a telephone wire cannot be said to come within the Fourth Amendment's enumeration of 'persons, houses, papers, and effects'").

⁶⁷ *Olmstead*, 277 U.S. at 455 (emphasis added).

⁶⁸ *Id.* at 466 ("The reasonable view is that one who installs in his house a telephone instrument with connecting wires intends to project his voice to those quite outside, and that the wires beyond his house and messages *while passing over them* are not within the protection of the Fourth Amendment." (emphasis added)).

⁶⁹ Shifting our analysis beyond the actual language of Taft's opinion, the role of strategy cannot be ignored. It is certainly possible (if not likely) that the ambiguity in the opinion regarding immateriality was negotiated by Taft to shore up a fragile majority bloc. See, e.g., FORREST MALTZMAN, JAMES F. SPRIGGS II & PAUL J. WAHLBECK, CRAFTING LAW ON THE SUPREME COURT 151 (2000) (discussing the importance of opinion assignments to case outcomes and strategic decisions); Michael Abramowicz & Maxwell L. Stearns, *Beyond Counting Votes: The Political Economy of Bush v. Gore*, 54 VAND. L. REV. 1849, 1853 (2001) (arguing that institutional norms and doctrine sharply constrain justices' strategic behavior); Timothy R. Johnson, James F. Spriggs II & Paul J. Wahlbeck, *Passing and Strategic Voting on the U.S. Supreme Court*, 39 LAW & SOC'Y REV. 349, 349 (2005) (asserting that a Chief Justice's decision to pass may be a strategic move to advance a policy preference).

⁷⁰ See *Lopez v. United States*, 373 U.S. 427, 438-39 (1963) ("It has been insisted only that the electronic device not be planted by an unlawful physical invasion of a constitutionally

assumes that *Olmstead*'s holding is singular: that electronic eavesdropping unaccompanied by a physical intrusion into a constitutionally protected area is not a Fourth Amendment “search.”⁷¹

The *Olmstead* era lasted from 1928 until 1967. The first real challenge to *Olmstead* came by way of congressional legislation.⁷² The 1934 Communications Act prohibited persons from the use of wires to intercept communications and the divulgence of their content.⁷³ The Act, based in Congress's commerce authority, reached the wiretapping of telephone wires (such as that used on *Olmstead*), yet it left unregulated many alternate forms of electronic eavesdropping.⁷⁴ And so in the ensuing decades the lawfulness of electronic eavesdropping (at least of the non-wiretap kind) hung on the mantle of *Olmstead*.

The Court's first review of *Olmstead* came in the 1942 decision of *Goldman v. United States*.⁷⁵ *Goldman* involved the government's use of a “detectaphone.”⁷⁶ A detectaphone is “a telephonic apparatus with an attached microphone transmitter” that, when placed on a door or wall, can detect conversations inside of an adjoining room.⁷⁷ The majority opinion, authored by Justice Owen Roberts, concluded that “no reasonable or logical distinction can be drawn between what federal agents did in the present case and state officers did in the *Olmstead* case.”⁷⁸ The Court then explicitly reaffirmed *Olmstead*:

That case was the subject of prolonged consideration by this court. The views of the court, and of the dissenting justices, were expressed clearly and at length. To rehearse and reappraise the arguments pro and con, and the conflicting views exhibited in

protected area.”); *Silverman v. United States*, 365 U.S. 505, 510 (1961) (“[I]n both *Goldman* and *On Lee*, the Court took pains explicitly to point out that the eavesdropping had not been accomplished by means of an unauthorized physical encroachment within a constitutionally protected area.”).

⁷¹ See William Heffernan, *Property, Privacy, and the Fourth Amendment*, 60 BROOK. L. REV. 633, 639–40 (1994) (“Because Taft seems to have been unaware of the inconsistency between his two rationales, we can assume that he wished to resolve the case on the basis of the first, trespassory rationale.”).

⁷² Communications Act of 1934, Pub. L. No. 416, 48 Stat. 1064.

⁷³ *Id.* at 1103–04.

⁷⁴ See, e.g., *Silverman*, 365 U.S. at 505 (spike mike); *On Lee v. United States*, 343 U.S. 747 (1952) (radio transmission of conversations with informants); *Goldman v. United States*, 316 U.S. 129 (1942) (detectaphone). Moreover, the Act did not prohibit the use of wiretapping evidence in state courts (which would have been governed by *Olmstead* in any post-*Mapp* decisions).

⁷⁵ 316 U.S. 129 (1942).

⁷⁶ *Id.*

⁷⁷ WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 616 (2002).

⁷⁸ *Goldman*, 316 U.S. at 135. The decision was 5–3 (with Justice Jackson having recused himself). *Id.* at 136.

the opinions, would serve no good purpose. Nothing now can be profitably added to what was there said. It suffices to say that we adhere to the opinion there expressed.⁷⁹

Ten years later, the Court again revisited *Olmstead*. In *On Lee v. United States*,⁸⁰ the Court contemplated whether the Fourth Amendment prohibited secret radio transmissions of conversations by undercover informants.⁸¹ Justice Jackson, writing for the majority, made clear that *Olmstead* remained good law.⁸² He cited both *Olmstead* and *Goldman* for the proposition that the government does not undertake a Fourth Amendment “search” when it uses “mechanical or electronic devices designed to overhear or intercept conversation, at least where access to the listening post was not obtained by illegal methods.”⁸³ After discussing the *Olmstead* line of cases,⁸⁴ Jackson explained that *On Lee*’s constitutional claim could be resolved through two broader doctrines: (1) *On Lee* had misplaced his trust in a conversant (the informant),⁸⁵ and (2) the transmission of the conversation constituted a mere magnification, like “[t]he use of bifocals, field glasses or the telescope.”⁸⁶

In the 1961 opinion of *Silverman v. United States*⁸⁷ one can identify some erosion of *Olmstead*.⁸⁸ *Silverman* involved the government’s use of a “spike mike” to amplify

⁷⁹ *Id.* at 135–36. See Morgan Cloud, *Pragmatism, Positivism, and Principles in Fourth Amendment Theory*, 41 UCLA L. REV. 199, 248 n.214 (1993) (stating that “the trespass doctrine had been reaffirmed” in *Goldman*).

⁸⁰ 343 U.S. 747 (1952).

⁸¹ *Id.* at 748–50. For an excellent discussion of the Court’s decisionmaking in government informant cases, see Catherine Hancock, *Warrants For Wearing a Wire: Fourth Amendment Privacy and Justice Harlan’s Dissent in United States v. White*, 79 MISS. L.J. 35 (2009).

⁸² *On Lee*, 343 U.S. at 753–54. See also *United States v. White*, 401 U.S. 745, 750 (1971) (plurality opinion) (stating that *On Lee* “first rejected claims of a Fourth Amendment violation because the informer had not trespassed when he entered the defendant’s premises and conversed with him”); Hancock, *supra* note 81, at 44 (“The *On Lee* Court relied on *Goldman v. United States*, which . . . in turn, extended the logic of *Olmstead* . . .”).

⁸³ *On Lee*, 343 U.S. at 753 (stating that *Olmstead* had “sharply limited” the reach of *Gouled v. United States*, 255 U.S. 298 (1921)).

⁸⁴ *Id.*

⁸⁵ *Id.* at 753–54.

⁸⁶ *Id.* at 754.

⁸⁷ 365 U.S. 505 (1961).

⁸⁸ See *Desist v. United States*, 394 U.S. 244, 275 (1969) (Fortas, J., dissenting) (“*Katz* is not responsible for killing *Olmstead*. Prior cases had left the physical-trespass requirement of *Olmstead* virtually lifeless and merely awaiting the death certificate that *Katz* gave it.”); *Lopez*, 373 U.S. 427, 458–59 (1963) (Brennan, J., dissenting) (stating “that its authority has been steadily sapped by subsequent decisions of the Court”); see also Cloud, *supra* note 79, at 248 (“At the beginning of the decade, the Court hinted that it was ready to jettison the property-privacy nexus.”); Tracey Maclin, *Katz, Kyllo, and Technology: Virtual Fourth Amendment Protection in the Twenty-First Century*, 72 MISS. L.J. 51, 80 (2002) (“Rejection of the ‘trespass’ rule ignited no real controversy among the Justices in *Katz*. One explanation for this consensus may be that the trespass rule specifically, and common-law property rules

incriminating conversations.⁸⁹ A “spike mike” was a one foot long metal spike with an attached microphone.⁹⁰ The government inserted one of these spikes into a wall until it made contact with the heating duct that ran through the house occupied by Silverman.⁹¹ At that point the spike became, in the majority’s words, “a giant microphone, running through the entire house occupied by appellants.”⁹² The Court explained that “the officers overheard the petitioners’ conversations only by usurping part of the petitioners’ house or office—a heating system which was an integral part of the premises occupied by the petitioners, a usurpation that was effected without their knowledge and without their consent.”⁹³ Although the Court did not consider whether there was “technical trespass under the local property law,” the Court concluded the eavesdropping was nonetheless accompanied by an “unauthorized physical penetration into the premises occupied by the petitioners.”⁹⁴ This intrusion on a “constitutionally protected area,” observed the majority, distinguished Silverman’s case from the wiretapping in *Olmstead* and rendered it a Fourth Amendment “search.”⁹⁵ The *Silverman* Court’s emphasis on the “unauthorized physical penetration” reaffirmed *Olmstead*’s holding.⁹⁶ Yet, at the same time *Silverman* disregarded *Olmstead*’s “immateriality” discussion by concluding that Silverman’s “conversations” were the subject of a “search.”⁹⁷

generally, no longer exerted influence on search and seizure doctrine. Since at least the 1950s, the persuasive quality of these rules waned.”(footnote omitted)).

⁸⁹ *Id.* at 506.

⁹⁰ *Id.*

⁹¹ *Id.* at 506–07.

⁹² *Id.* at 509 (quoting *Silverman v. United States*, 275 F.2d 173, 179 (D.C. Cir. 1960)).

⁹³ *Id.* at 511.

⁹⁴ *Id.* at 509, 511 (“Inherent Fourth Amendment rights are not inevitably measurable in terms of ancient niceties of tort or real property law.”).

⁹⁵ *Id.* at 510–12.

⁹⁶ See *supra* notes 13–14 and accompanying text (discussing the single holding of *Olmstead*). *Silverman*, 356 U.S. at 509–10 (“The absence of a physical invasion of the petitioner’s premises was also a vital factor in the Court’s decision in *Olmstead v. United States*.”); *id.* at 510 (“[I]n both *Goldman* and *On Lee*, the Court took pains explicitly to point out that the eavesdropping had not been accomplished by means of an unauthorized physical encroachment within a constitutionally protected area.”); *id.* at 513 (Clark, J., concurring) (“In view of the determination by the majority that the unauthorized physical penetration into petitioners’ premises constituted sufficient trespass to remove this case from the coverage of earlier decisions, we feel obliged to join in the Court’s opinion.”). See also *Berger v. New York*, 388 U.S. 41, 79 (1967) (Black, J., dissenting) (stating that the *Silverman* Court cited *Olmstead* “with approval”).

⁹⁷ See *Lopez v. United States*, 373 U.S. 427, 438–39 (1963) (“It has been insisted *only* that the electronic device not be planted by an unlawful physical invasion of a constitutionally protected area.” (citing *Silverman*, 356 U.S. at 505)) (emphasis added); Hancock, *supra* note 81, at 45 (“[T]he Court found that the interception of conversations could violate the Fourth Amendment, thus implicitly recognizing that the human ear could commit the seizure of a conversation, and that an intangible conversation could receive the constitutional protection given to tangible ‘effects’ or ‘things.’”). But see *Berger*, 388 U.S. at 79 (Black, J., dissenting) (explaining his view that *Silverman* was resolved through the Court’s supervisory authority).

Two years after *Silverman*, the Court reconsidered *Olmstead* in *Lopez v. United States*.⁹⁸ In *Lopez*, the Court assessed the constitutionality of recording a conversation on a “wire recorder” kept on an agent’s person.⁹⁹ In reference to the *Olmstead* line of cases, the majority opinion, authored by Justice Harlan, stated that “in the past” the Court had “sustained instances of ‘electronic eavesdropping’ against constitutional challenge.”¹⁰⁰ Here, wrote Harlan, “the device was not planted by means of an unlawful physical invasion of petitioner’s premises under circumstances which would violate the Fourth Amendment.”¹⁰¹ The majority made clear, however, that “[t]he validity of [the *Olmstead* line of cases] is not in question here” because “this case involves no ‘eavesdropping’ whatever in any proper sense of that term.”¹⁰² And so, as in *On Lee*, the majority reasoned through alternate doctrines to conclude that the government did not undertake a constitutional “search.”¹⁰³

1967 was the year that closed the curtain on the *Olmstead* era. Within a course of months, both *Olmstead*’s “immateriality” discussion and “physical intrusions” holding were formally rejected by the Court.¹⁰⁴ Lasting nearly forty years, the *Olmstead* era was marked by (1) its holdings that electronic eavesdropping unassociated with a physical intrusion into a constitutionally protected area is not a “search,” and (2) its judicial intimations that conversations could not be the subject of a “search.”¹⁰⁵

3. Prevailing Descriptions

The *Olmstead* era has been widely criticized. Commentators have chastised it as “unmistakably grudging,”¹⁰⁶ “exceedingly narrow,”¹⁰⁷ and unresponsive to changes

⁹⁸ 373 U.S. 427 (1963).

⁹⁹ *Id.* at 430. For a description of how the factual basis differed from that in *On Lee*, see *id.* at 443–46 (Warren, C.J., concurring).

¹⁰⁰ *Id.* at 438 (majority opinion).

¹⁰¹ *Id.* at 439 (explaining that the recorder was “carried in and out by an agent who was there with petitioner’s assent, and it neither saw nor heard more than the agent himself”).

¹⁰² *Id.*

¹⁰³ *Id.* See also *United States v. White*, 401 U.S. 745, 776 (1971) (Harlan, J., dissenting) (stating that the *Lopez* decision was “bottomed on two premises: the corroborative use that was made of the tape recordings, which increased reliability in the factfinding process, and the absence of a ‘risk’ not fairly assumed by petitioner”).

¹⁰⁴ *Katz v. United States*, 389 U.S. 347 (1967); *Berger v. New York*, 388 U.S. 41 (1967). For a discussion of how the facts of *Berger* differed from those in *Silverman*, see *Berger*, 388 U.S. at 81 (Black, J., dissenting); see also *Warden, Md. Penitentiary v. Hayden*, 387 U.S. 294, 304 (1967) (“We have recognized that the principal object of the Fourth Amendment is the protection of privacy rather than property, and have increasingly discarded fictional and procedural barriers resting on property concepts.”). But see *United States v. Jones*, 132 S. Ct. 945, 950 (2012) (supplementing the *Katz* test with an *Olmstead*-style standard of “physical trespass”).

¹⁰⁵ See, e.g., Amsterdam, *supra* note 49, at 381–82.

¹⁰⁶ James J. Tomkovicz, *Technology and the Threshold of the Fourth Amendment: A Tale of Two Futures*, 72 *Miss. L.J.* 317, 333 (2002).

¹⁰⁷ *Id.*

in technology.¹⁰⁸ The severity of the reviews has not waned with time. As recently as 2010, in *City of Ontario v. Quon*, eight justices cited *Olmstead* as an example of the risks associated with imprudent adjudication.¹⁰⁹ The causes of the *Olmstead* era are contested. One set of explanations hinges on the justices’ policy preferences (for, say, a society which entrusts law enforcement to engage in responsible warrantless wiretapping).¹¹⁰ Other explanations turn on the justices’ juridical preferences. Professor Cloud has linked *Olmstead* to the justices’ adoption of “*Lochner*-style” formalism.¹¹¹ This type of formalism, wrote Cloud, severs “property law concepts” from “related foundational beliefs” in “natural law” and “individual rights.”¹¹² *Olmstead* is alternatively linked by commentators to the justices’ proclivity for textualism. Professor Tomkovicz has written of the “majority’s fear” that “the relationship between wiretapping and the Fourth Amendment would be unfaithful to history and to the literal terms of the constitutional text.”¹¹³ In a similar manner Professor Heffernan has associated *Olmstead* with the “practice-based originalism” of Chief Justice Taft.¹¹⁴ With that said, these contending explanations should not obscure the shared consensus that *Olmstead* was an unfortunate chapter in the Court’s criminal procedure history.

B. Failure of Katz

Alongside the *Olmstead* era sits a second “search” phenomenon. This is the failure of *Katz*.¹¹⁵ By this I mean the Warren Court’s unrealized promise to incorporate an objective and evolving privacy standard into “search” decisionmaking. This subpart briefly recounts the opinions in *Katz v. United States*, summarizes the Court’s post-*Katz* case law, and surveys the conventional explanations for *Katz*’s failure.

1. The *Katz* Decision

Without a warrant, the FBI attached a listening and recording device to the top of a phone booth in Miami, Florida.¹¹⁶ With that device the agents were able to capture incriminating statements made by Charles Katz.¹¹⁷ Consequently, Katz was indicted

¹⁰⁸ Daniel J. Solove, *Digital Dossiers and the Dissipation of Fourth Amendment Privacy*, 75 S. CAL. L. REV. 1083, 1086–87 (2002); James J. Tomkovicz, *Technology and the Threshold of the Fourth Amendment: A Tale of Two Futures*, 72 MISS. L.J. 317, 333 (2002); see also *Katz*, 389 U.S. at 353 (discussing the “narrow view” of the *Olmstead* majority).

¹⁰⁹ 130 S. Ct. 2619, 2629 (2010).

¹¹⁰ See, e.g., Tomkovicz, *supra* note 106, at 331.

¹¹¹ See Cloud, *supra* note 3, at 610–24.

¹¹² See Cloud, *supra* note 79, at 247 n.207 (“In other words, the Court excised one constituent element from an integrated legal worldview.”).

¹¹³ Tomkovicz, *supra* note 106, at 331.

¹¹⁴ Heffernan, *supra* note 71, at 639.

¹¹⁵ *Katz v. United States*, 389 U.S. 347 (1967).

¹¹⁶ *Id.* at 348.

¹¹⁷ *Id.*

for various gambling-related offenses, his motion to suppress the evidence was denied, and he was convicted.¹¹⁸ The conviction was upheld on appeal and the Supreme Court granted certiorari.¹¹⁹

The *Katz* majority, in an opinion by Justice Stewart, began with a rejection of *Olmstead*'s standard of "constitutionally protected areas."¹²⁰ Justice Stewart explained that "the underpinnings of *Olmstead* and *Goldman* have been so eroded by our subsequent decisions that the 'trespass' doctrine there enunciated can no longer be regarded as controlling."¹²¹ As a result, any "effort to decide whether or not a given 'area,' viewed in the abstract, is 'constitutionally protected' deflects attention from the problem presented by this case."¹²²

Freed from the bindings of *Olmstead*, the majority introduced a novel type of "search" analysis.

[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.¹²³

The new approach called on jurists to assess the objective privacy expectations of a given time and place. The application of this contextual standard to *Katz*'s claim turned on the architecture of the bugged phone booth, and, more generally, the role of public phones in society at large.¹²⁴

One who occupies it, shuts the door behind him, and pays the toll that permits him to place a call is surely entitled to assume

¹¹⁸ *Id.* at 348–49.

¹¹⁹ *Id.* at 349–50. The government argued that the Fourth Amendment was not violated because either (1) the booth was not a constitutionally protected area, or alternatively, (2) the government did not physically encroach upon such area. *Id.* at 351–52. These arguments were formulated and made before the Court issued its opinion in *Berger v. New York*, 388 U.S. 41 (1967).

¹²⁰ *Katz*, 389 U.S. at 350.

¹²¹ *Id.* at 353 ("[A]lthough a closely divided Court supposed in *Olmstead* that surveillance without any trespass and without the seizure of any material object fell outside the ambit of the Constitution, we have since departed from the narrow view on which that decision rested."); *id.* ("Indeed, we have expressly held that the Fourth Amendment governs not only the seizure of tangible items, but extends as well to the recording of oral statements, overheard without any 'technical trespass under . . . local property law.'") (citing *Silverman v. United States*, 365 U.S. 505 (1961)).

¹²² *Id.* at 351.

¹²³ *Id.* at 351–52 (citations omitted).

¹²⁴ For a "social" analysis of Justice Stewart's opinion, see Jonathan Simon, *Katz at Forty: A Sociological Jurisprudence Whose Time Has Come*, 41 U.C. DAVIS L. REV. 935, 948–59 (2008).

that the words he utters into the mouthpiece will not be broadcast to the world. To read the Constitution more narrowly is to ignore the vital role that the public telephone has come to play in private communication.¹²⁵

Based on its assessment of objective and evolving privacy expectations the *Katz* majority concluded that “[t]he Government’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.”¹²⁶

In reorienting “search” doctrine along the lines of objective and evolving privacy expectations, the *Katz* majority provided no clear standards for future courts to apply. To supplement the majority’s “people-not-places” discussion, Justice Harlan offered a brief concurring opinion.¹²⁷

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.” Thus, a man’s home is, for most purposes, a place where he expects privacy, but objects, activities, or statements that he exposes to the “plain view” of outsiders are not “protected” because no intention to keep them to himself has been exhibited. On the other hand, conversations in the open would not be protected against being overheard, for the expectation of privacy . . . would be unreasonable.¹²⁸

Harlan’s “twofold requirement” has been subsequently explained as follows:

The first [question] is whether the individual, by his conduct, has “exhibited an actual (subjective) expectation of privacy,”—whether, in the words of the *Katz* majority, the individual has

¹²⁵ *Katz*, 389 U.S. at 352.

¹²⁶ *Id.* at 353. *Katz*’s emphasis on context has a rich heritage rooted in Justice Brandeis’s *Olmstead* dissent. *Olmstead v. United States*, 277 U.S. 438, 472 (1928) (Brandeis, J., dissenting) (“Clauses guaranteeing to the individual protection against specific abuses of power, must have a . . . capacity of adaptation to a changing world.”). *See also* *Lopez v. United States*, 373 U.S. 427 (1963) (Brennan, J., dissenting) (“The requirements of the Fourth Amendment are not inflexible, or obtusely unyielding to the legitimate needs of law enforcement. It is at least clear that ‘the procedure of antecedent justification before a magistrate that is central to the Fourth Amendment,’ could be made a precondition of lawful electronic surveillance.” (citations omitted)); *Goldman v. United States*, 316 U.S. 129 (1942) (Murphy, J., dissenting) (“It is our duty to see that this historic provision receives a construction sufficiently liberal and elastic to make it serve the needs and manners of each succeeding generation.”).

¹²⁷ *Katz*, 389 U.S. at 360–62 (Harlan, J., concurring).

¹²⁸ *Id.* at 361.

shown that “he seeks to preserve [something] as private.” The second question is whether the individual’s subjective expectation of privacy is “one that society is prepared to recognize as ‘reasonable,’”—whether, in the words of the *Katz* majority, the individual’s expectation, viewed objectively, is “justifiable” under the circumstances.¹²⁹

Almost immediately, the Harlan two-part test emerged as the doctrinal standard for “search” issues.¹³⁰ It has remained the rule for more than forty years.¹³¹

2. *Katz*’s Failure

Most commentators thought *Katz* was transformative at the time it came down.¹³² This was not simply because it repealed a property-based regulation of electronic eavesdropping.¹³³ It was because *Katz* called for interpretive reformation on a far larger scale: it explicitly linked the Fourth Amendment term “search” to objective and evolving standards of privacy.¹³⁴ While many have attacked *Katz* collaterally (for, say, focusing on the wrong value or causing the fracture of doctrine),¹³⁵ *Katz* is frequently

¹²⁹ See *Smith v. Maryland*, 442 U.S. 735, 740 (1979) (citations omitted).

¹³⁰ See *Terry v. Ohio*, 392 U.S. 1, 9 (1968) (“[W]herever an individual [has] a reasonable ‘expectation of privacy,’ he is entitled to be free from unreasonable governmental intrusion.” (citations omitted)). See also *Mancusi v. DeForte*, 392 U.S. 364, 368 (1968) (questioning “whether the area was one in which there was a reasonable expectation of freedom from governmental intrusion”).

¹³¹ See, e.g., *City of Ontario v. Quon*, 130 S. Ct. 2619, 2629–30 (2010); *Minnesota v. Carter*, 525 U.S. 83, 97 (1998) (Scalia, J., concurring) (commenting on “the *Katz* test (which has come to mean the test enunciated by Justice Harlan’s separate concurrence in *Katz*)”).

¹³² See Kerr, *supra* note 7, at 538 (“[I]t was expected that the new test would have a major impact on how the Fourth Amendment applied.”); Note, *From Private Places to Personal Privacy: A Post-Katz Study of Fourth Amendment Protection*, 43 N.Y.U. L. REV. 968, 968 (1968) (describing *Katz* as a “landmark” case); *id.* at 981 (“[T]he *Katz* decision has pointed the way towards a complete re-orientation in the analysis of problems relating to governmental intrusion into individuals’ private affairs.”).

¹³³ But see *United States v. Jones*, 132 S. Ct. 945, 950 (2012).

¹³⁴ Albert W. Alschuler, *Interpersonal Privacy and the Fourth Amendment*, 4 N. ILL. U. L. REV. 1, 6 n.12 (1983) (stating that *Katz* links the right to privacy to “changing cultural expectations of privacy”); see Cloud, *supra* note 79, at 247 (stating that the Court was “employing a test that rests upon pragmatist theories and methods”); Maclin, *supra* note 88, at 62 (“After *Katz* . . . the substantive content of the Amendment would derive from thoroughly modern and realistic understandings of the privilege against unreasonable searches and seizures.”); Solove, *supra* note 4, at 1519 (“The reasonable expectations of privacy test also promises flexibility—it can evolve with society and remain connected to current social values.”). See generally Amy Piekoff, *Pragmatism and Privacy*, 5 N.Y.U. J. LAW & LIB. 638 (2010) (discussing the pragmatism of *Katz*). For an argument about the more humble objectives of the *Katz* majority, see Maclin, *supra* note 88, at 58 (“[T]he Justices who decided *Katz* were unable to agree on the meaning of their ruling . . .”).

¹³⁵ Much of the search-and-seizure literature argues that the Fourth Amendment rests on the wrong value. See *supra* note 3; Kerr, *supra* note 7, at 529 (“Many articles argue that the

skewered on its own terms.¹³⁶ This “internal” criticism emphasizes *Katz*’s failure to live up to its promise of objective and evolving decisionmaking.¹³⁷

The evidence of *Katz*’s failed promise is substantial. One might start by pointing to post-*Katz* ratifications of pre-*Katz* rules. If *Katz* had actually reoriented “search” doctrine, it would be curious, goes the argument, to have so many rules remain fixed across the pre- and post-*Katz* eras. “What is remarkable,” observed Professor Junker, “is how little was changed by *Katz*’s abandonment of the ‘trespass’ standard of *Olmstead v. United States* and *Goldman v. United States*.”¹³⁸ Professor Kerr has recently described this phenomenon in more detail:

[T]ime and again, the interpretation of the new test just happened to match prior law. For example, [*United States v.*] *White* reaffirmed *On Lee v. United States*, which had held that the police did not need a warrant to go undercover and wear a “wire”

Supreme Court should replace the ‘reasonable expectation of privacy’ test with a new test that better captures what the Fourth Amendment is *really* about.”). An incoherence critique also pervades the literature. See, e.g., Ronald Dworkin, *Fact Style Adjudication and the Fourth Amendment: The Limits of Lawyering*, 48 IND. L.J. 329, 364–68 (1973) (arguing that the Court’s case-by-case fact-oriented approach is a failure); Richard Posner, *Rethinking the Fourth Amendment*, 1981 SUP. CT. REV. 49, 76–80 (finding that the Court’s Fourth Amendment rulings are inconsistent as a matter of economic analysis); Solove, *supra* note 4, at 1511 (“The reasonable expectation of privacy test has led to a contentious jurisprudence that is riddled with inconsistency and incoherence.”); Silas J. Wasserstrom & Louis Michael Seidman, *The Fourth Amendment as Constitutional Theory*, 77 GEO. L.J. 19, 20 (1988) (“[There is] virtual unanimity . . . that the Court simply ha[d] made a mess of search and seizure law.”). But see Orin S. Kerr, *Four Models of Fourth Amendment Protection*, 60 STAN. L. REV. 503, 507 (2007) (“The result is a body of law that seems chaotic and confused and in need of major reworking. But appearances can be deceiving.”).

¹³⁶ See, e.g., *Minnesota v. Carter*, 525 U.S. 83, 110–11 (1998) (Ginsburg, J., dissenting) (“The Court’s decision in this case veers sharply from the path marked in *Katz*.”); *Florida v. Riley*, 488 U.S. 445, 456 (1989) (Brennan, J., dissenting) (“The opinion for a plurality of the Court reads almost as if [*Katz*] had never been decided.”); *California v. Ciraolo*, 476 U.S. 207, 216 (1985) (Powell, J., dissenting) (asserting that the Court “departs significantly from the standard developed in *Katz*”).

¹³⁷ WAYNE R. LAFAYE ET AL., *CRIMINAL PROCEDURE* 128 (2004) (“The full potential of the *Katz* approach (which certainly in all respects has not been realized) . . .”); Simon, *supra* note 124, at 959 (“Commentators have long appreciated that something potentially revolutionary to at least Fourth Amendment jurisprudence was embedded in *Katz* but had failed to develop.”); Sklansky, *supra* note 7, at 143 (“The decision in *Katz* seemed to promise a Fourth Amendment that was less tied to specific locations, and therefore somehow more modern. The Justices keep renewing that promise, but they have never figured out how to make good on it.”); Peter P. Swire, *Katz Is Dead. Long Live Katz*, 102 MICH. L. REV. 904, 931 (2004) (“*Katz* has already had two lives. The first was as the protector of privacy envisioned by Justice Brennan and celebrated in the ‘reasonable expectation of privacy’ test. The second has been as an invader of privacy.”).

¹³⁸ John M. Junker, *The Structure of the Fourth Amendment: The Scope of the Protection*, 79 J. CRIM. L. & CRIMINOLOGY 1105, 1125 (1989).

that transmitted the defendant's conversations to a police observation post. *Rakas v. Illinois* reaffirmed *Wong Sun v. United States*, which had held that Fourth Amendment rights are personal and cannot be asserted vicariously. *Oliver v. United States* reaffirmed *Hester v. United States*, retaining the "open fields" doctrine.¹³⁹

Moreover, *Katz*'s failed promise is reflected in the regularity with which post-*Katz* "search" holdings cut against public expectations of privacy.¹⁴⁰ Justice Harlan, in *Katz*, emphasized that the "search" inquiry turns on expectations "that society is prepared to recognize as 'reasonable.'"¹⁴¹ Yet thirty years later, Justice Scalia observed that reasonable expectations of privacy have turned out to be nothing more than "those expectations of privacy that this Court considers reasonable."¹⁴² Similarly, the Court's "conception of privacy," wrote Professor Solove, is one "that countless commentators have found to be . . . totally out of touch with society."¹⁴³ To illustrate, Professors Wasserstrom and Seidman, in the wake of *Arizona v. Hicks*,¹⁴⁴ wrote:

[O]n the very day that the Court identified Officer Nelson's examination of the bottom of a turntable as a full-blown search, it announced that no search had occurred when officers on three

¹³⁹ Kerr, *supra* note 7, at 538 (footnotes omitted). See Wayne R. LaFave, *Fourth Amendment Vagaries (of Improbable Cause, Imperceptible Plain View, Notorious Privacy, and Balancing Askew)*, 74 J. CRIM. L. & CRIMINOLOGY, 1171, 1177 n.37 (1983) ("[A] *Smith-Knotts* type of analysis could well have produced the result that *Katz* lacked an expectation of privacy because what he said could have been determined by a lip reader some distance away or by a hypothetical bystander immediately adjacent to the booth."); see Cloud, *supra* note 79, at 253 (stating that the open fields doctrine, "first announced during the [F]ourth [A]mendment's formalist era, seemed an unlikely candidate to withstand scrutiny when expectations analysis was applied"); Tracey Maclin, *Informants and the Fourth Amendment*, 74 WASH. U. L. Q. 573, 620–21 (1996) ("Although *Katz* announced that the Court would no longer be controlled by rigid and antiquated concepts when formulating the scope of the Fourth Amendment, the *White* plurality read *Katz* as having no impact on the secret spy cases." (footnote omitted)).

¹⁴⁰ See *infra* notes 152–59 and accompanying text.

¹⁴¹ See *Katz v. United States*, 389 U.S. 347, 361 (1967) (Harlan, J., concurring).

¹⁴² *Minnesota v. Carter*, 525 U.S. 83, 97 (1998) (Scalia, J., concurring).

¹⁴³ Solove, *supra* note 4, at 1519, 1526 (providing as illustration that "under current Fourth Amendment law, a little squeeze of a bag on a bus is fully regulated whereas systematic surveillance is not."). See Morgan Cloud, *Rube Goldberg Meets the Constitution: The Supreme Court, Technology, and the Fourth Amendment*, 72 MISS. L.J. 5, 28 (2002) ("Ultimately, the outcomes of these cases have turned on the subjective views of a majority of the Justices about what privacy expectations are objectively 'reasonable.'"); Kerr, *supra* note 135, at 505 (stating that some "[t]reatises and casebooks" suggest that "the only way to identify when an expectation of privacy is reasonable is when five Justices say so"); see also JEFFREY ROSEN, *THE UNWANTED GAZE: THE DESTRUCTION OF PRIVACY IN AMERICA* 63 (2000) (writing that in "many cases, people have an objectively valid expectation of privacy that the Court, by judicial fiat, has deemed unjustifiable").

¹⁴⁴ 480 U.S. 321 (1987).

occasions entered a suspect’s fenced property without permission, walked across one-half mile of the property, crossed several interior barbed wire fences, and shined a flashlight into the suspect’s barn. Similarly, the Court has told us that we have a reasonable expectation that strangers, such as landlords and hotel clerks, will not authorize searches, but no such expectation regarding spouses or close friends. And although a suspect can reasonably expect that a public telephone booth will not be bugged, she has no such expectation regarding a person she admits to her home.¹⁴⁵

By way of further example, Professor Slobogin has written of the counter-intuitive implications of the “third party doctrine”:

[V]arious federal and state statutes guarantee the confidentiality of records maintained by hospitals, banks, schools, and other institutions, and penalize breach of this confidentiality with civil and even criminal penalties. Yet the Court’s Fourth Amendment jurisprudence declares that the American public can expect no privacy vis-à-vis government voyeurism or perusal of our transactions.¹⁴⁶

As it turns out, the Court’s drift away from societal expectations has been confirmed by empirical data.¹⁴⁷ Drawing from public surveys, Professor Slobogin has concluded that “the Supreme Court’s conclusions about the scope of the Fourth Amendment are often not in tune with commonly held attitudes about police investigative techniques.”¹⁴⁸

¹⁴⁵ Wasserstrom & Seidman, *supra* note 135, at 29–30 (footnotes omitted) (discussing the Court’s “seemingly perverse outcomes” in “search” issues). *See also* Stephen A. Saltzburg, *Another Victim of Illegal Narcotics: The Fourth Amendment (As Illustrated by the Open Fields Doctrine)*, 48 U. PITT. L. REV. 1, 20 (1986) (identifying the absurdity of people receiving “more protection in a taxi than on land they own, care for, and seek to keep private for themselves”).

¹⁴⁶ Christopher Slobogin, *Proportionality, Privacy, and Public Opinion: A Reply to Kerr and Swire*, 94 MINN. L. REV. 1588, 1592 (2010) (footnote omitted).

¹⁴⁷ *See, e.g.*, CHRISTOPHER SLOBOGIN, *PRIVACY AT RISK* 112 (2007) (“My findings with respect to the various surveillance scenarios can be summarized as follows: virtually all forms of transaction surveillance as well as overt public camera surveillance are viewed, on average, as more intrusive than a roadblock, and government efforts to access records from websites, ISPs, pharmacies, and banks are perceived to be as intrusive as a search of a car.”); *see also* Christopher Slobogin, *Government Data Mining and the Fourth Amendment*, 75 U. CHI. L. REV. 317, 335–36 (2008); Christopher Slobogin, *Public Privacy: Camera Surveillance of Public Places and the Right to Anonymity*, 72 MISS. L.J. 213, 277–78 (2002); 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, 737–39 (1993).

¹⁴⁸ Slobogin & Schumacher, *supra* note 147, at 774. Professors Slobogin and Schumacher argue that some Supreme Court cases “do not reflect societal understandings” of when an expectation of privacy is reasonable. *Id.* at 732.

Further evidence of *Katz*'s failure is to be found in the Court's continued reliance on property concepts. As Professor Kerr has stated, "in most (though not all) cases, an expectation of privacy becomes 'reasonable' only when it is backed by a right to exclude borrowed from real property law."¹⁴⁹ Property law was officially incorporated into the *Katz* test in the 1978 decision of *Rakas v. Illinois*¹⁵⁰: "expectations of privacy," wrote the majority, "must have a source outside of the Fourth Amendment, either by reference to concepts of real or personal property law or to understandings that are recognized and permitted by society."¹⁵¹ Following *Rakas*'s lead, Chief Justice Burger, in *California v. Ciraola*,¹⁵² asserted that no search had occurred because the police's aerial observations "took place within public navigable airspace, in a physically non-intrusive manner."¹⁵³ Justice Brennan chastised Burger's reasoning for its "willingness to end its inquiry when it finds that the officer was in a position he had a right to be."¹⁵⁴ Professor Maclin echoed Justice Brennan's point in his criticism of the Court's holding that "dog sniffs" are not "searches"¹⁵⁵:

The analytical tension between *Place* and *Katz* is manifest. Why does it matter that the dog sniff does not require opening of luggage? . . . The absence of a physical intrusion does not diminish a person's privacy interest in his luggage, just as the absence of a physical intrusion into a telephone booth did not diminish *Katz*'s interest in the privacy of his telephone conversations. . . . Thus, the "manner" of the police intrusion in *Place* should be irrelevant.¹⁵⁶

¹⁴⁹ Kerr, *supra* note 5, at 809–10. See also Orin S. Kerr, *Technology, Privacy, and the Courts: A Reply to Colb and Swire*, 102 MICH. L. REV. 933, 934 (2004) ("Even when purporting to protect privacy, judges have proven reluctant to deviate from rules based on principles of property law."); Kerr, *supra* note 135, at 506 (explaining that the Court's doctrine does not rely directly on societal standards of expectations of privacy but "considers whether the government conduct interferes with property rights or other legal standards outside the Fourth Amendment"). But see Cloud, *supra* note 143, at 15, 46 (advocating that the Court use Fourth Amendment property concepts to define property); Slobogin, *supra* note 146, at 1603–04 (explaining that the "positive law" model is "an occasionally good proxy for assessing societal expectations" in that it "is, of course, the result of a survey, albeit one mediated through the democratic process").

¹⁵⁰ 439 U.S. 128 (1978).

¹⁵¹ *Id.* at 144 n.12.

¹⁵² 476 U.S. 207 (1986).

¹⁵³ *Id.* at 213. See also *Florida v. Riley*, 488 U.S. 445, 445–46, 449–50 (1988) (plurality opinion) (reasoning that helicopter surveillance from 400 feet did not constitute a "search" because "the FAA permits helicopters to fly below that limit, the helicopter here was not violating the law, and any member of the public or the police could legally have observed respondent's greenhouse from that altitude").

¹⁵⁴ *Riley*, 488 U.S. at 459 (Brennan, J., dissenting).

¹⁵⁵ *United States v. Place*, 462 U.S. 696, 719–20 (1983); see also *Illinois v. Caballes*, 543 U.S. 405, 410–11 (2005) (Souter, J., dissenting).

¹⁵⁶ Maclin, *supra* note 88, at 82.

Just recently, property law was given a more prominent role in “search” interpretations. This past year, in *United States v. Jones*,¹⁵⁷ a majority held that a physical trespass constitutes a “search” even if there is no encroachment upon a reasonable expectation of privacy. In effect, the *Jones* Court expanded on *Rakas* by making property concepts not simply a factor of the privacy analysis, but rather a sufficient condition for “search.”¹⁵⁸ This reliance on property law, along with the Court’s ratification of old rules and its drift away from public expectations of privacy, make clear that *Katz* failed in its promise to reorient “search” doctrine along the lines of an objective and evolving privacy standard.

3. Prevailing Descriptions

There is little doubt that *Katz* has failed to accomplish its objective to institute an objective and evolving privacy standard to govern the interpretation of a Fourth Amendment “search.”¹⁵⁹ Search-and-seizure commentators attribute this failure to one of three (oftentimes overlapping) causes: (1) the vagueness of the *Katz* decision; (2) the inaccessibility of empirical data on “privacy expectations”; and (3) the justices’ individual juridical or policy preferences.¹⁶⁰

¹⁵⁷ 132 S. Ct. 945 (2012).

¹⁵⁸ *Id.* at 950.

¹⁵⁹ Some scholars, such as Professor Cloud, have argued that *Katz* actually succeeded in making the doctrine contextual (if not objective). See Cloud, *supra* note 79, at 251 (“It is not surprising . . . to find a body of case law in which the Court focuses upon social context, uses the law instrumentally to achieve social goals, and emphasizes substantive, not formal, reasoning.”); Cloud, *supra* note 3, at 613 n.275 (“*Katz* is one of the theoretical bulwarks of the Court’s contemporary Fourth Amendment pragmatism.”). Other scholars have argued that *Katz* has been successful in ways unrelated to its promise regarding objectivity and privacy evolution. See, e.g., Orin S. Kerr, *The Case for the Third-Party Doctrine*, 107 MICH. L. REV. 561, 566 (2009) (arguing that the current doctrine is sufficiently vague to allow the Court to undertake a pragmatic assessment of the costs and benefits of regulating certain types of government behavior).

¹⁶⁰ The first two explanations (vagueness and inaccessible data) assume that the justices attempt to apply *Katz* before falling back on preferences. The third explanation argues that the justices have not even made good-faith efforts to sincerely apply *Katz*. There is, however, some overlap between these explanations. The first and second explanations hold that, once the justices became disenchanted with *Katz* they fall back on old rules, subjective views of privacy, or property concepts. They do this either out of some sense of judicial duty or to maximize their juridical or policy objectives. Thus, each explanation can be viewed as resting, at least in part, on the justices’ juridical or policy goals. And, of course, each of these three explanations for *Katz*’s failure can be folded into other “deeper” explanations. For instance, one could (theoretically) claim that judges are biased in favor of law enforcement because of the media’s portrayal of crime. As a result, when one seeks to isolate sources of positive accounts one is oftentimes limited to patterns and themes.

Perhaps the most common explanation for *Katz*'s failure is the vagueness of *Katz*.¹⁶¹ Professor Katz, for instance, has complained that Justice Stewart's majority opinion "provided modest guidance for determining the justifiability of an expectation of privacy in other contexts."¹⁶² Professor Maclin has written that proclaiming "'the Fourth Amendment protects people, not places' tells us nothing."¹⁶³ Scholars have also focused their vagueness critique on Justice Harlan's two-part test. The meaning of "reasonable expectations," and the content of "privacy," is left to the wide discretion of the interpreter.¹⁶⁴ As one commentator put it: "Justice Harlan's formula raised but did not fully answer the question of what kind of knowledge would be useful in discerning just what grants of privacy society is prepared to recognize as reasonable."¹⁶⁵ If this were not frustrating enough, there is the additional interpretive task of assimilating *Katz*'s concurring and majority opinions.¹⁶⁶ Remember that Justice Harlan's concurrence stated that Fourth Amendment protection "generally" attaches to only particular locations: "The question . . . is what protection [privacy] affords to those people," and "[g]enerally . . . the answer to that question requires reference to a 'place.'"¹⁶⁷ Harlan moreover reasoned that the Fourth Amendment applied to *Katz* because "an enclosed telephone booth is an area . . . like a home" where "occupants' expectations of freedom

¹⁶¹ See Amsterdam, *supra* note 49, at 385 (stating that *Katz* fails to offer a comprehensive test for applying the amendment); Cloud, *supra* note 143, at 27 ("[E]ven this new standard did little to constrain judicial discretion."); Lewis R. Katz, *In Search of a Fourth Amendment for the Twenty-First Century*, 65 IND. L.J. 549, 562 (1990) ("A seminal case should provide a framework for its later application. However, the seminal quality of *Katz* lies in its understanding of what the [F]ourth [A]mendment is about rather than in the clarity of its rule."); Kerr, *supra* note 135, at 505 ("Supreme Court opinions cannot even agree on what kind of test it is. Is it descriptive? Is it normative? Just what does it measure?").

¹⁶² Katz, *supra* note 161, at 559–60. See also THOMAS K. CLANCY, THE FOURTH AMENDMENT 59 (2008) ("[T]he [*Katz*] Court's embrace of privacy was not without reservation and [Justice] Stewart did little to explain what he meant by the term."); Edmund W. Kitch, *Katz v. United States: The Limits of the Fourth Amendment*, 1968 SUP. CT. REV. 133, 137–38 (identifying ambiguities in the *Katz* opinion, and noting that because of the Harlan concurrence, "it seems clear that the [majority] opinion is intentionally ambiguous").

¹⁶³ Maclin, *supra* note 88, at 74.

¹⁶⁴ See *Kyllo v. United States*, 533 U.S. 27, 34 (2001) (noting that *Katz*'s expectations test "has often been criticized as circular, and hence subjective and unpredictable"); Kerr, *supra* note 135, at 504–05 ("But no one seems to know what makes an expectation of privacy constitutionally reasonable. . . . [T]he meaning of the phrase 'reasonable expectation of privacy' remains remarkably opaque." (internal quotation marks omitted)); *id.* at 505–06 (arguing that *Katz* is sufficiently vague to allow the Court to draw from one of four programs, some of which are without privacy content).

¹⁶⁵ Simon, *supra* note 124, at 954.

¹⁶⁶ Ric Simmons, *From Katz to Kyllo: A Blueprint for Adapting the Fourth Amendment to Twenty-First Century Technologies*, 53 HASTINGS L.J. 1303, 1312 (2002) (noting that Justice Harlan's reformation of the rule of *Katz* "sits somewhat awkwardly alongside the majority opinion and makes it more difficult to give meaning to the vague 'reasonable expectations of privacy' test").

¹⁶⁷ *Katz v. United States*, 389 U.S. 347, 361 (1967) (Harlan, J., concurring).

from intrusion are recognized as reasonable.”¹⁶⁸ Professor Sklansky has claimed this part of Harlan’s analysis creates ambiguity when juxtaposed with *Katz*’s “grand proclamation[s] . . . [to protect] people, not places.”¹⁶⁹ This vagueness of *Katz*, the argument goes, has caused confusion.¹⁷⁰ And from this confusion has come ratification of pre-*Katz* rules, deviation from public expectations of privacy, and incorporation of non-privacy value schemes into the *Katz* test.¹⁷¹

In addition to the vagueness of *Katz*, some scholars place the blame for *Katz*’s failure on the inaccessibility of good empirical data. Professor Faigman has written about the importance of empirical findings to combat the judiciary’s factual assumptions in many areas of constitutional adjudication.¹⁷² Dean Post has written that “there can ultimately be no other measure of privacy than the social norms that actually exist in our civilization.”¹⁷³ As a result, Professor Slobogin concludes that “we must measure [social norms] if we care about privacy.”¹⁷⁴ More particularly, the *Katz* test, turning on “reasonable expectations” of privacy, “purports to be an empirical metric of societal views on privacy.”¹⁷⁵ Scholars attribute *Katz*’s failure to the lack of accessible empirical data on privacy expectations.¹⁷⁶ They point out, for one, that such data were unavailable for the first twenty-five years after *Katz*.¹⁷⁷ And while empirical studies have become more commonplace over the past two decades,¹⁷⁸ it is often claimed that

¹⁶⁸ *Id.* at 360–61.

¹⁶⁹ Sklansky, *supra* note 7, at 158–60 (“[W]hile repeatedly reaffirming that the Fourth Amendment protects people not places, the Court has simultaneously made clear that—just as Harlan opined—the extent of the protection generally requires reference to a place.” (internal quotation marks omitted)). The “vagueness” explanation differs from the “concreteness” explanation offered *infra* in Part II.B.1. See discussion *infra* Part III.C.

¹⁷⁰ See, e.g., Maclin, *supra* note 88, at 95 (“The problem with *Katz* is that it was so lacking in substance and subject to judicial manipulation that it could mean anything to anyone.”). The ineffectuality of an ambiguous “redefinition” (like “reasonable expectations of privacy”) is heightened when imposed upon a concrete term like “search.” See *infra* notes 258–60 and accompanying text. As a result, any positive account of *Katz*’s failure which does not address the concreteness of “search” is incomplete.

¹⁷¹ The justices reliance on old rules, subjective views of privacy, and property concepts is a result of either a sense of judicial duty or pure juridical objectives.

¹⁷² DAVID L. FAIGMAN, CONSTITUTIONAL FICTIONS: A UNIFIED THEORY OF CONSTITUTIONAL FACTS 162–63 (2008).

¹⁷³ Robert C. Post, *Three Concepts of Privacy*, 89 GEO. L.J. 2087, 2094 (2001).

¹⁷⁴ Slobogin, *supra* note 146, at 1602.

¹⁷⁵ Solove, *supra* note 4, at 1521. See also Wasserstrom & Seidman, *supra* note 135, at 28 n.39 (“As Justice Harlan recognized in the beginning, an inquiry into ‘reasonable expectations of privacy’ necessarily has both a normative and empirical dimension.”).

¹⁷⁶ Solove, *supra* note 4, at 1521 (explaining that the Court “has never cited to empirical evidence” to analyze whether an expectation of privacy is reasonable).

¹⁷⁷ The first important empirical survey of privacy expectations was the Slobogin & Schumacher study published in 1993. See generally Slobogin & Schumacher, *supra* note 147.

¹⁷⁸ See *supra* note 147 and accompanying text.

(1) the studies are inadequate;¹⁷⁹ or (2) the Court is not adequately trained to incorporate the studies into its decisionmaking.¹⁸⁰ The inaccessibility of reliable empirical data on privacy expectations is thought by some to have caused justices (subconsciously or otherwise) to rely on pre-*Katz* rules, their subjective privacy views, or common-law property principles.¹⁸¹

Scholars alternatively attribute *Katz*'s failed promise to the justices' efforts to maximize their juridical or policy preferences.¹⁸² It is common, after all, for commentators to attribute Fourth Amendment holdings to "judicial fiat,"¹⁸³ "dishonest judging,"¹⁸⁴ and "shifting Court majorities" which can "manipulate" the law "at will."¹⁸⁵ Various types of judicial preferences have been discussed in the literature. One category focuses on preferred interpretive methodologies such as *stare decisis* or originalism. Professor Sklansky, for instance, has argued that some justices hold "an alternative vision of

¹⁷⁹ Orin S. Kerr, *Do We Need a New Fourth Amendment?*, 107 MICH. L. REV. 913, 959–60 (2009) (arguing that Professor Slobogin's "intrusiveness" standard "does not actually measure how much a technique infringes on civil liberties" and that the public cannot accurately evaluate the invasiveness of physical and transactional surveillance because the media associates these techniques with "Big Brother"); Solove, *supra* note 4, at 1522 (critiquing parts of Slobogin's surveys).

¹⁸⁰ See Kerr, *supra* note 179, at 964–65 (identifying representation problems (e.g., state, region, race, or age), problems if public opinion changes, problems with determining how they've changed, and problems with reconciling dueling surveys); Joelle Anne Moreno, *Beyond the Polemic Against Junk Science: Navigating the Oceans that Divide Science and Law with Justice Breyer at the Helm*, 81 B.U. L. REV. 1033, 1081 (2001) ("Legal scholars and practitioners . . . are often confounded by the principles of statistical analysis, risk assessment, probabilistic attribution, and attendant mathematical jargon.") Slobogin, *supra* note 146, at 1607 ("In fairness to the courts . . . [empirical] facts are not easy to come by.").

¹⁸¹ The justices' turn to old rules, subjective views of privacy, and property concepts is a result of either a sense of judicial duty or pure juridical objectives.

¹⁸² LEE EPSTEIN & JACK KNIGHT, *THE CHOICES JUSTICES MAKE* 23 n.a (1998) ("[M]ost justices, in most cases, pursue policy; that is, they want to move the substantive content of law as close as possible to their preferred position."); RICHARD A. POSNER, *HOW JUDGES THINK* 286 (2008) (stating that there are few issues that "a really skillful legal analyst cannot cover with a professional varnish"). Unlike the first two prevailing explanations (vagueness and inaccessible empirics), this argument holds that justices have not been making a good-faith effort to sincerely apply the *Katz* standard.

¹⁸³ ROSEN, *supra* note 143, at 63.

¹⁸⁴ Professor Slobogin has written that "honest judging" would have indeed recognized that empirically derived privacy expectations are crucial. See Slobogin, *supra* note 146, at 1607 n.102 ("An institution that surrenders its authority to define the empirical world loses a considerable amount of its power." (quoting Faigman, *supra* note 172, at 16)); Solove, *supra* note 4, at 1522 ("The Court rarely takes any steps to determine what society deems reasonable.").

¹⁸⁵ CLANCY, *supra* note 162, at 68; Colb, *supra* note 4, at 122 (explaining that deviation from *Katz*'s foundation is attributed to "knowing exposure" moves made consciously though never expressed); Kathryn R. Urbonya, *A Fourth Amendment "Search" in the Age of Technology: Postmodern Perspectives*, 72 MISS. L.J. 447, 477 (2002) ("With these diverse and contrasting rhetorical arguments, the Court gets to choose how to frame and resolve a decision.").

search-and-seizure jurisprudence” which is “anchored securely in eighteenth-century common law.”¹⁸⁶ A second subset of the preferences literature attributes “search” holdings to the justices’ interests in particular law enforcement policies. Professor Cloud has explained how the justices have used *Katz* to advance their societal goal of efficient law enforcement.¹⁸⁷ And Professor Kerr has recently argued that Fourth Amendment decisions flow not from sincere applications of *Katz* but from the judiciary’s interest in maintaining equilibrium between law enforcement and the ability of criminals to evade detection.¹⁸⁸ A third set of scholars have attributed “search” decisions to the justices’ interest in the just punishment of guilty persons.¹⁸⁹ The threat of an exclusionary sanction, goes the argument, triggers a sort of “hydraulics” effect,¹⁹⁰ which in turn causes the justices (subconsciously or otherwise) to interpret the term “search” in ways to avoid outcomes where the “criminal goes free.”¹⁹¹ Professor Bradley, for one, has written that Courts “strive [] to justify” challenged police behavior “by stretching existing doctrine to accommodate it.”¹⁹² Professor Amar has made the point in more

¹⁸⁶ Sklansky, *supra* note 7, at 161. See also Frederick Schauer, *Rules and Rule of Law*, 14 HARV. J.L. & PUB. POL’Y 645, 682–83 (1991) (explaining that the rule with local priority will typically prevail over the more general one in a system which preserves rule-based decisionmaking).

¹⁸⁷ See Cloud, *supra* note 3, at 590–91 (discussing the open fields doctrine).

¹⁸⁸ See Kerr, *supra* note 7, at 480 (“It is] a judicial response to changing technology and social practice. When new tools and new practices threaten to expand or contract police power in a significant way, courts adjust the level of Fourth Amendment protection to try to restore the prior equilibrium.”).

¹⁸⁹ See Stuntz, *supra* note 7, at 913.

¹⁹⁰ Luke M. Milligan, *Congressional End-Run: The Ignored Constraint on Judicial Review*, 45 GA. L. REV. 211, 250–51 (2010). For analyses of hydraulics in different contexts, see generally Samuel Issacharoff & Pamela S. Karlan, *The Hydraulics of Campaign Finance Reform*, 77 TEX. L. REV. 1705 (1999); Michael S. Kang, *The Hydraulics and Politics of Party Regulation*, 91 IOWA L. REV. 131, 149 n.60 (2005).

¹⁹¹ See, e.g., *Coolidge v. New Hampshire*, 403 U.S. 443, 490 (1971) (Harlan, J., concurring) (application of exclusionary rule to state courts is responsible for “serious distortions and incongruities” in search-and-seizure law); Sherry F. Colb, *Innocence, Privacy, and Targeting in Fourth Amendment Jurisprudence*, 96 COLUM. L. REV. 1456, 1512 (1996) (“Scholars have often argued that the reason the Supreme Court sometimes makes the doctrinal mistake of taking a defendant’s guilt into account in determining whether there has been a search is that the exclusionary rule distorts the meaning of the Fourth Amendment by making the viability of a criminal conviction turn on a narrow interpretation of the Fourth Amendment right, an interpretation which will then apply to guilty and innocent alike”); Donald Dripps, *The Case for the Contingent Exclusionary Rule*, 38 AM. CRIM. L. REV. 1 (2001) (urging adoption of a discretionary exclusionary rule that would permit judges to charge the state money damages, if the state agrees, in lieu of suppressing evidence, following a successful suppression motion); Monrad G. Paulsen, *The Exclusionary Rule and Misconduct by the Police*, 52 J. CRIM. L., CRIMINOLOGY & POLICE SCI. 255 (1961); Stuntz, *supra* note 7, at 912–13. For a discussion of how these biases interact with the atomic code, see *infra* Part III.C.

¹⁹² Bradley, *supra* note 4, at 1470.

concrete terms: “Judges do not like excluding bloody knives, so they distort doctrine, claiming that the Fourth Amendment was not really violated.”¹⁹³

These identified causes of *Katz*'s failure—vagueness of standard, inaccessible empirical data, and policy maximization—seem impervious to any form of treatment short of overturning *Katz*. As a result most commentators who subscribe to *Katz*'s concept of an objective and evolving privacy standard have, for practical reasons, called for *Katz*'s repeal.¹⁹⁴ But what if there existed an alternative, heretofore unrealized, cause of *Katz*'s failure? And what if this “new” cause, upon discovery, turned out to be more responsive to treatment than the causes previously identified? The identification of a new and treatable cause of *Katz*'s failure would almost certainly breathe new life into *Katz*'s aspirations regarding an objective and evolving privacy standard.¹⁹⁵ And so with the objective of salvaging *Katz* (or, at the very least, providing a more complete explanation of *Katz*'s failure) the next part of this article sets forth a new positive account of the Supreme Court's “search” interpretations.

¹⁹³ Amar, *supra* note 3, at 799. A variation on this theory is that the justices' exposure over time to guilty persons' cases makes them less sensitive to violations of “good” citizens' rights and thereby results in stricter “search” interpretations. For more general arguments about judicial biases rooted in the “establishment-oriented” judicial system, see Anthony Amsterdam, *The Supreme Court and the Rights of Suspects in Criminal Cases*, 45 N.Y.U. L. REV. 785 (1970). For a discussion of how these biases interact with the atomic code, see *infra* Part III.C.

¹⁹⁴ Christian M. Halliburton, *How Privacy Killed Katz: A Tale of Cognitive Freedom and the Property of Personhood as Fourth Amendment Norm*, 42 AKRON L. REV. 803, 812 (2009) (arguing that *Katz* should turn on Margaret Radin's notion of property); Slobogin, *supra* note 146, at 1588 (calling for incorporation of empirics and stating that “justification for a government search or seizure ought to be roughly proportionate to the invasiveness of the search or seizure”); Solove, *supra* note 4, at 1512 (“For a long time, I believed that with the appropriate understanding of privacy—one that is well-adapted to modern technology, nimble and nuanced, forward-looking and sophisticated—Fourth Amendment jurisprudence could be rehabilitated. I now realize I was wrong.”); James J. Tomkovicz, *Beyond Secrecy for Secrecy's Sake: Toward an Expanded Vision of the Fourth Amendment Privacy Province*, 36 HASTINGS L.J. 645, 737 (1985) (proposing an “instrumental approach to resolving fourth amendment threshold questions [that] will further [the] realization of the full potential of the *Katz* revolution”).

¹⁹⁵ *Katz*, *supra* note 161, at 554–55 (“[W]e should return to the privacy test intended by [Justices] Stewart and Harlan and to the underlying values that motivated it.”); Scott E. Sundby, “Everyman's” *Fourth Amendment: Privacy or Mutual Trust Between Government and Citizen?*, 94 COLUM. L. REV. 1751, 1755–56 (1994) (arguing that *Katz* could be the framework for the future of trust in the government); Wasserstrom & Seidman, *supra* note 135, at 22 (“Most commentators want to amputate the limb to save the patient. We prefer to treat the wound with the hope that a cure also will eliminate the low-level infection coursing throughout the body.”); Swire, *supra* note 137, at 905 (arguing that with the development of new technology, *Katz* may be “dead for [its] core facts,” but that “Fourth Amendment doctrine should continue to play a role in governing . . . high-tech searches”); Daniel B. Yeager, *Search, Seizure and the Positive Law: Expectations of Privacy Outside the Fourth Amendment*, 84 J. CRIM. L. & CRIMINOLOGY 249, 308 (1993) (arguing that though the test is flawed, “[w]hen the government is behaving lawfully, *Katz* acts as a backstop, as a second look at whether the positive law fairly reflects a given defendant's expectations”).

II. THE ATOMIC CODE

Over the decades commentators have offered various explanations for the arc of *Olmstead* and the failure of *Katz*. Yet the search-and-seizure literature has overlooked one particularly attractive account of these phenomena. The overlooked description is a set of interpretive rules that I have termed the “atomic code.” This atomic code of “search” interpretations has been roughly identified by a string of recent decisions beginning with *City of Ontario v. Quon*.¹⁹⁶ This part summarizes the *Quon* case, introduces the atomic code, and identifies its root causes.

A. *Contours of a New Description*1. The *Quon* Decision

Jeff Quon, a police officer employed by the City of Ontario, California, was issued a pager to receive and send work-related messages.¹⁹⁷ The city’s contract with the service provider set a monthly limit on the number of characters each pager could send or receive.¹⁹⁸ After Quon and others in the department exceeded the character limit, the police chief contacted the service provider to verify that the overages were attributable to work-related messaging.¹⁹⁹ In the chief’s review of the text-message transcripts he discovered that some of Quon’s messages were sexually explicit.²⁰⁰ Upon being disciplined for violating police department policy, Quon filed suit, alleging that the department violated, among other things, his Fourth Amendment rights.²⁰¹ The district court granted summary judgment on the grounds that the search of Quon was “reasonable,”²⁰² the Ninth Circuit reversed,²⁰³ and the Supreme Court granted certiorari.

Two issues were before the Court: was the acquisition and review of the text message transcripts a “search” under the Fourth Amendment; and, if so, was such search “reasonable” pursuant to the rules relating to government employees?²⁰⁴ In addressing the first issue (whether there was a “search”), the eight-justice majority, in an opinion authored by Justice Kennedy, began by explaining the factors that should be considered

¹⁹⁶ 130 S. Ct. 2619 (2010). The central principles of the atomic code have been further affirmed, to varying degrees, by *Davis v. United States*, 131 S. Ct. 2419 (2011) and *United States v. Jones*, 132 S. Ct. 945 (2012). See *infra* Part II.A.2.

¹⁹⁷ *Quon*, 130 S. Ct. at 2625.

¹⁹⁸ *Id.* Usage exceeding this limit would result in an additional fee. *Id.*

¹⁹⁹ *Id.* at 2625–26.

²⁰⁰ *Id.* at 2626.

²⁰¹ *Id.*

²⁰² *Id.* at 2626–27.

²⁰³ *Id.* at 2627. The panel agreed that he had an expectation of privacy but believed the search was “unreasonable.” *Id.*

²⁰⁴ *Id.* at 2630.

in a proper analysis of “search.”²⁰⁵ But after framing the analysis, the majority pulled up short. It announced that it would be inappropriate to undertake a “search” analysis in Quon’s case. Justice Kennedy wrote:

The Court must proceed with care when considering the whole concept of privacy expectations and communications made on electronic equipment owned by a government employer. 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.²⁰⁶

Such “elaboration” is particularly dangerous, observed the majority, when it concerns evolving technologies. “Rapid changes in the dynamics of communication and information transmission,” wrote Justice Kennedy, “are evident not just in the technology itself but in what society accepts as proper behavior.”²⁰⁷ And “[a]t present, it is uncertain how workplace norms, and the law’s treatment of them, will evolve.”²⁰⁸ The majority concluded that “a broad holding concerning employees’ privacy expectations vis-à-vis employer-provided technological equipment might have implications for future cases that cannot be predicted. It is preferable to dispose of this case on narrower grounds.”²⁰⁹ And so the Court assumed “for present purposes” that the “review of the

²⁰⁵ *Id.* (“Cell phone and text message communications are so pervasive that some persons may consider them to be essential means or necessary instruments for self-expression, even self-identification. That might strengthen the case for an expectation of privacy. On the other hand, the ubiquity of those devices has made them generally affordable, so one could counter that employees who need cell phones or similar devices for personal matters can purchase and pay for their own. And employer policies concerning communications will of course shape the reasonable expectations of their employees, especially to the extent that such policies are clearly communicated.”).

²⁰⁶ *Id.* at 2629 (citations omitted). Here the justices expressed concern about “the judiciary” as a whole weighing in before the public’s views have formed. Note how this differs from a judicial policy to facilitate consensus at the circuit-court level. *Cf.* ROBERT L. STERN ET AL., SUPREME COURT PRACTICE 228 n.18 (8th ed. 2002) (“In some cases the Justices may feel that the time is not ripe for the Court to resolve a conflict, preferring to await further litigation that might produce a consensus or a satisfactory majority view among the lower courts.”); *id.* at 230 (addressing “those of my Colleagues who agree with me [on the merits of the issue] but believe that this Court should postpone consideration of the issue until more state supreme courts and federal circuits have experimented with substantive and procedural solutions to the problem” (internal quotation marks omitted) (quoting *Gilliard v. Mississippi*, 464 U.S. 867 (1983) (Marshall, J., dissenting from denial of certiorari))).

²⁰⁷ *City of Ontario v. Quon*, 130 S. Ct. at 2629.

²⁰⁸ *Id.* at 2630.

²⁰⁹ *Id.*

transcript constituted a search within the meaning of the Fourth Amendment.”²¹⁰ The Court then went on to find that under the workplace doctrine the “search” of Quon was a “reasonable” one.²¹¹

2. Understanding *Quon*

From the concerns expressed by the *Quon* Court one can infer a set of implicit rules that regulate the judiciary’s interpretation of “search.” First, the *Quon* majority stated its concern that, because the members of the Court lacked “knowledge and experience” about workplace-issued electronic devices, any “search” decision would require the Court to “use” the “facts” of the *Quon* case to “establish far-reaching premises.”²¹² This seemed to imply that, had the “search” issue been resolved, it would have inevitably turned on analogical reasoning.²¹³ Second, the majority was worried that even though future courts will likely be on “surer ground” regarding the related privacy expectations, they will have to abide by any “search” ruling in *Quon*. This reveals the Court’s view that future majorities would be bound by any “search” holding in *Quon*, and, moreover, that subsequent decisions in other areas of the Fourth Amendment would have little impact, if any, on future cases whose facts are similar to those in *Quon*. The concerns of the *Quon* Court, while only roughly articulated, raise the specter of a new positive account of Fourth Amendment “search” decisionmaking.

The interpretive rules inferred from the *Quon* majority opinion seem to incorporate past decisions by Court “majorities” (rather than the votes of individual justices).²¹⁴ But at casual glance one realizes that a “majority-centric” model would lack suitable descriptive power. The “majority-centric” approach would fail to explain, among other things, the entrenched dissenting views of the *Olmstead* era.²¹⁵ As a result this article elaborates on a variation of the *Quon* code: it shifts the analysis away from “Court majorities” and to the “individual justice.”²¹⁶ This “justice-centric” code provides that

²¹⁰ *Id.*

²¹¹ *Id.* at 2630–31.

²¹² *Id.* at 2629.

²¹³ See Kerr, *supra* note 5, at 875–76 (“Judges struggle to understand even the basic facts of such technologies, and often must rely on the crutch of questionable metaphors to aid their comprehension.”); Brief for Respondents at 61, *City of Ontario v. Quon*, 130 S. Ct. 2619 (2010) (No. 08-1332) (analogizing Quon’s texting to Katz’s use of a public phone booth).

²¹⁴ Readers may even acknowledge ambiguity on this point. *Quon*, 130 S. Ct. at 2630 (discussion of the “implications for future cases” leaves open the possibility that this is because such cases will be disposed of by members of the *Quon* Court—all of whom will have committed content to a new atom).

²¹⁵ See, e.g., *Lopez v. United States*, 373 U.S. 427 (1963) (Brennan, J., dissenting); *On Lee v. United States*, 343 U.S. 747 (1952) (Frankfurter, J., dissenting); *Goldman v. United States*, 316 U.S. 129 (1942) (Frankfurter, J., dissenting).

²¹⁶ Setting aside whether *Quon* was focused on “individuals” or “majorities,” the “individual” take seems to have more explanatory power. Raising the possibility of a new explanation for Katz’s failure has the added benefit of presenting an opportunity for a new treatment.

(1) justices view “search” doctrine as an aggregation of “search” parts (or atoms); (2) content for each justice’s atom is attributed through analogical reasoning; and (3) justices do not reassess the content of their atoms after initial attributions. Taking this positive account, one sees that a Court holding is, in effect, simply a majority of justices who share a conclusion about content in a given case.²¹⁷ The following subsections explain this in greater detail.

a. Atoms

The interpretive “atomism” implied by *Quon* deserves a more thorough explanation. By “atomic” I mean that the continuum of possible government activities are broken into parts, that these parts become labeled either a “search” or “non-search,” and that each part of “search” case law remains relatively insulated from the other.²¹⁸ Each part, or “atom,” covers a discrete field of potential government behavior. In a simple model a justice might conceive of an “aerial surveillance” atom, a “home entry” atom, a “car entry” atom, an “electronic eavesdropping” atom, and an “informant” atom. Each individual atom, upon reflection, becomes catalogued by the justice as either a “search” or a “non-search.”²¹⁹ Importantly, the justice does not feel much compulsion to cohere these five atoms into something that is meaningful or sound in the whole.²²⁰

Quon suggests that the “search” doctrine is atomistic. This can be inferred from the majority’s strident concerns about any merits-holding binding future courts. If the “search” doctrine were not atomistic but *coherent*, a future Court would not be as concerned about its decision “binding” future courts. Justices of future courts would be able to avoid applying an unfavored “search” holding (to even similar factual circumstances) by simply citing to (1) an updated application of the “expectations of privacy”

²¹⁷ See, e.g., *Katz v. United States*, 389 U.S. 427 (1967) (eight justices attributing “search” to their “wiretap” atoms); *Olmstead v. United States*, 277 U.S. 438 (1928) (five justices attributing “non-search” to their “wiretap” atoms).

²¹⁸ For a classic debate between atomism and coherence, compare *United States v. White*, 401 U.S. 745, 750 (1971) (“We see no indication in *Katz* that the Court meant to disturb that understanding of the Fourth Amendment or to disturb the result reached in the *On Lee* case, nor are we now inclined to overturn this view of the Fourth Amendment.” (footnote omitted)) with *id.* at 783 (Harlan, J., dissenting) (“To complete the tapestry, the strands of doctrine reflected in the search cases must be interwoven with the Court’s other contemporary holdings.”).

²¹⁹ A justice’s attribution of content can be made through official adjudication or less formal means.

²²⁰ Justice Scalia recently stated in an interview that: “I just hate Fourth Amendment cases. . . . [Every case is so fact-specific that any particular opinion merely answers] variation 3,542.” Antonin Scalia, Interview with Susan Swain 13–14 (June 19, 2009) (transcript available at <http://supremecourt.c-span.org/assets/pdf/AScalia.pdf>). See Urbonya, *supra* note 185, at 493 (“The progeny of *Katz* fails to provide a coherent framework for predicting when an activity is a ‘search’”); Wasserstrom & Seidman, *supra* note 135, at 29 (stating that Fourth Amendment doctrine is cobbled together from “a series of inconsistent and bizarre results that [the Court] has left entirely undefended”).

standard or (2) other “search” cases (even non-analogous ones) that supported a preferred outcome. To put it inversely: in an atomistic paradigm general “search themes” (be they principles or doctrinal charges) do very little to moderate the authority of past “search holdings.” And so the justices’ concern in *Quon* that general “search themes” would be unable, in the future, to moderate an unfavored “search holding” in *Quon* reflects the justices’ view that the “search” doctrine is atomistic.²²¹ This atomistic view was again revealed in 2011 in *Davis v. United States*.²²² In expanding the “good faith exception” of the exclusionary rule to officers’ reasonable reliance on binding appellate precedent, the *Davis* majority engaged in an extensive discussion of how Fourth Amendment holdings are insulated from one another.²²³

b. Code

The two concerns raised by the *Quon* Court (that decisions will rest on analogical reasoning and bind future courts) also hint at a set of particular rules, or “code,” to govern the atomistic framework just identified.²²⁴ The first phase of the “search” code is “dormancy.” A given “search” atom exists for a justice for some period before that justice provides it with content.²²⁵ During these points in time the atom is dormant. In *Quon* the issue before the Court (i.e., whether reading personal communications made on government-employer-issued devices is a “search”)²²⁶ was clearly dormant for many of the justices. And the next term, in *Davis*, a majority of justices emphasized the concept of dormant atoms through a discussion of the dichotomy of “open” and “closed” issues.²²⁷ It is important to keep in mind that, because the atomic

²²¹ It is possible that in a coherent model a merits decision could lead to unpredictable implications from the perspective of the present-day Court. Yet, the implications would not be (as found in atomism) beyond the control of future majorities.

²²² *Davis v. United States*, 131 S. Ct. 2419 (2011).

²²³ *Id.* at 2431–33 (citing *Arizona v. Gant*, 129 S. Ct. 1710 (2009)). The Court stated that once a Fourth Amendment issue is decided there is very little chance that later decisions will be able to undermine its authority. *Id.* This view was further reiterated in *United States v. Jones*, 132 S. Ct. 945 (2012), last term when the majority, in lieu of evaluating expectations of privacy in terms of GPS devices, restructured the “search” standard by adding an alternative “trespass” test. *Id.* The addition of a “trespass” test potentially suggests that the Court has become frustrated with the constraints of the atomic code. See *infra* Part II.B.1 (discussing relative impacts of concrete and abstract standards); *infra* notes 459–60 (discussing the *Jones* Court’s reformation of the “search” test to avoid the constraints of the atomic code).

²²⁴ *Quon*, 130 S. Ct. at 2629–30.

²²⁵ One can think of search “atoms” as dormant during that period, however short, when the justice is aware of the possibility of such government action but has not yet fully deliberated upon the “search” implications.

²²⁶ 130 S. Ct. at 2624.

²²⁷ In the context of the good faith exception to the exclusionary rule, criminal defendants, after *Davis*, are unable to benefit from an officer’s reasonable reliance on “closed” issues. *Davis*, 131 S. Ct. 2419.

code is “justice-centric,” the period of dormancy of a given atom will vary from justice to justice.²²⁸

The second phase of the code is “attribution.” Over time, a justice will reflect on whether certain dormant atoms should be classified as a “search” or “non-search.” During this process a justice will survey her “old” atoms (i.e., those to which she has previously attributed content). Only through analogy to one of these old atoms will the justice attribute content to a dormant atom.²²⁹ This analogical-based form of attribution was emphasized by the *Quon* Court. The majority explained that because it lacked “knowledge and experience” about the expectations of privacy at issue, any ruling on the merits would “establish far-reaching premises” through the “use” of the “facts” in *Quon*’s case.²³⁰ It should be noted that attribution to a dormant atom requires only reflection (not judicial office).²³¹ Attribution can therefore take place outside the context of adjudication (and even before the justice joins the Court).²³²

The code’s third phase, after dormancy and attribution, is “maintenance.” After assignment of content, a justice will not reassess the content of that particular atom again.²³³ The *Quon* Court expressed its concern that any merits decision would bind future justices (including the current justices who, in a future case, might be on “surer ground” about the privacy expectations at stake).²³⁴ And the *Davis* Court, the next year, explained that the justices only rarely change their minds regarding Fourth Amendment

²²⁸ This is because justices reflect on the content of the atom at different times. For example, a justice may not have been on the Court at the time when many of his colleagues attributed content to a particular atom. *See also* discussion *infra* notes 331–40 and accompanying text (explaining how some of the justices avoided attributing content to their “wiretap” atoms by relying on new atoms, *see Silverman v. United States*, 365 U.S. 505 (1961), and through prioritizing other old atoms, *see Lopez v. United States*, 373 U.S. 427 (1963)).

²²⁹ Cass R. Sunstein, Commentary, *On Analogical Reasoning*, 106 HARV. L. REV. 741, 755–57 (1993) (discussing the role of “classification” in “analogical reasoning”). Analogical attributions will inevitably bring *some* degree of coherence to “search” case law. This does not, however, undermine the claim that “search” decisionmaking is atomistic. *See supra* note 221.

²³⁰ 130 S. Ct. at 2629; *see Kerr, supra* note 5, at 875–76 (explaining that the justices rely on “questionable metaphors” in “search” cases involving new technologies); *see also* Brief for the Respondent, *City of Ontario v. Quon*, 130 S. Ct. 2619 (2010) (No. 08-1332) at 61 (analogizing *Quon*’s texting to *Katz*’s use of a public phone booth). Although the majority passed on the “search” issue, and suggested that it would wait until it did not have to rely on analogical reasoning, *see Quon*, 130 S. Ct. at 2829, this does not change the fact that, for the past century, the Court has turned to such reasoning to give content to dormant atoms.

²³¹ *See supra* note 225 and accompanying text.

²³² *See United States v. White*, 401 U.S. 745, 795–96 (1967) (Marshall, J., dissenting) (drawing from views on “informants” from before he joined the Supreme Court); *United States v. Pineda-Moreno*, 617 F.3d 1120, 1126 (9th Cir. 2010) (Kozinski, J., dissenting) (explaining his position that GPS surveillance is a “search” through allusions to his experiences growing up in a Communist state). For further discussion, *see infra* Part III.C.

²³³ For discussion of two exceptions to this claim, *see supra* note 16.

²³⁴ *Quon*, 130 S. Ct. 2619, 2629 (2010).

issues.²³⁵ One can think of this as *stare decisis writ small*: a justice (but not necessarily the Court) will decide like cases alike.²³⁶ And so the overturning of “search” precedent is not the result of a majority’s new attribution of content but, more accurately, a new majority of initial attributions.

Maintenance, along with attribution and dormancy, constitute the code of the “search” atomic framework. Revealed in its rough contours in *Quon* (and, to a lesser extent, *Davis*), the atomic code seems a plausible candidate for a new positive account of “search” interpretations. But before testing the code’s descriptive force, it is important to first discern how the atomic code came to be.

B. Sources of the Atomic Code

The atomic code is not simply a function of vague doctrinal tests, inaccessible empirical data, or the types of judicial bias highlighted in the prevailing literature. Instead it is in large part attributable to two factors that have been overlooked by search-and-seizure commentators.²³⁷ One is the concreteness of the term “search.” The other is the justices’ preference for a calibrated retroactivity of criminal procedure rules.²³⁸

²³⁵ *Davis v. United States*, 131 S. Ct. 2416, 2424 (2011) (citing *Chimel v. California*, 395 U.S. 752 (1967)); see also *Arizona v. Gant*, 129 S. Ct. at 1717–18 (overruling the “interior compartment” rule from *New York v. Belton*, 453 U.S. 454 (1980)). Earlier reversals in the Fourth Amendment context include *Katz v. United States*, 389 U.S. 347 (1967) (overruling *Olmstead v. United States*, 277 U.S. 438 (1928)); *Warden, Md. Penitentiary v. Hayden*, 387 U.S. 294, 301–04 (1967) (overruling the mere evidence rule from *Gouled v. United States*, 255 U.S. 298 (1921)); and *Hale v. Henkel*, 201 U.S. 43, 76–77 (1906) (overruling the business papers aspect of *Boyd v. United States*, 116 U.S. 616 (1886)). The “maintenance” assertions in *Quon* and *Davis* seem to reflect a consensus in the prevailing search-and-seizure literature. See Kerr, *supra* note 179, at 934; Slobogin, *supra* note 146, at 1606 (acknowledging that Professor Kerr is “correct” that “the Supreme Court has never formally applied societal expectation of privacy analysis to police conduct that has already been designated a search”); see also Maclin, *supra* note 88, at 100 (stating that if the Court were “forced to revisit the constitutionality of pen registers, it is highly likely that the current Court would reaffirm *Smith*’s holding notwithstanding the result in *Kyllo*”); *id.* at 105 (“Sooner or later, the Court will have the opportunity to address the conflict between *Kyllo* and *Place*. When that occasion arises, my prediction is the Court will give *Kyllo* a narrow reading and extend *Place*’s holding to authorize dog sniffs of private residences.”).

²³⁶ It is plausible (if not likely) that the Court in *Quon* and *Davis* was referencing a “Court-centric” atomic code. For a discussion of why a “justice-centric” approach is more accurate, see *supra* note 228 and accompanying text.

²³⁷ The “atomic code” would be a unique positive account even if its sources were not unique from the prevailing explanations for “search” interpretations. See *supra* discussion Part I.B.3.

²³⁸ There are of course other forces contributing to the atomic code. The vagueness of “expectations of privacy,” for example, certainly compounds the impact caused by the “concreteness” of the term “search.” See *infra* Part II.B.1.

1. Concreteness of “Search”

Psycholinguistics is the “[s]tudy of the mental processes involved in the comprehension, production and acquisition of language.”²³⁹ One focus of the psycholinguistics literature is the difference between “concrete” and “abstract” words.²⁴⁰ The difference turns on the existence of “perceptual referents.”²⁴¹ Professor Paivio has explained that “terms like *horse* and *wagon*” are “concrete” because they have “direct, observable referents.”²⁴² These are to be distinguished from “terms like *truth* and *beauty* that have no direct referents.”²⁴³ Concreteness has many effects. All things being equal, concrete words are (1) more rapidly learned,²⁴⁴ (2) better recalled,²⁴⁵ and (3) defined with more precision.²⁴⁶ By “precision” I mean that humans are more disciplined in their assessment

²³⁹ Encyclopedia Britannica (2009), <http://www.credoreference.com/entry/ebconscience/psycholinguistics>.

²⁴⁰ See, e.g., Allan Paivio, *Dual Coding Theory: Retrospect and Current Status*, 45 CAN. J. PSY. 255, 256 (1991); Shi Feng et al., *Simulating Human Ratings on Word Concreteness*, ASS'N FOR THE ADVANCEMENT OF ARTIFICIAL INTELLIGENCE 245, 246 (2011) (explaining that words can have different levels of concreteness).

²⁴¹ ALLAN PAIVIO, MENTAL REPRESENTATIONS: A DUAL-CODING APPROACH 123 (1986) (“[C]oncrete and abstract words are semantically differentiated by the degree of availability of referential interconnections.”). Concrete words have both referential and verbal-associative meaning; abstract words, on the other hand, depend more on verbal-associative interconnections for their meanings. *Id.*; see also Feng et al., *supra* note 240, at 245 (“Concrete words such as house, poodle, and tiger evoke mental images quickly and easily in contrast to less concrete words such as *causality*, *evolution* and *mortal*.”).

²⁴² PAIVIO, *supra* note 241, at 11.

²⁴³ *Id.*

²⁴⁴ JOHN LUTZ, AN INTRODUCTION TO LEARNING AND MEMORY, 233 (1994) (citing Allan Paivio et al., *Noun Imagery and Meaningfulness in Free and Serial Recall*, 79 J. EXPERIMENTAL PSYCHOL. 509 (1969)). Professor Paivio observed that “images represent a separate component of meaning, at least somewhat independent of the verbal associations given to a word” and that “high imagery words are more rapidly learned and better recalled than low imagery words, even when the two sets of words are equated for meaningfulness and familiarity.” *Id.* (citing ALLAN PAIVIO, IMAGERY AND VERBAL PROCESS (1971); see also THOMAS H. LEAHEY & RICHARD J. HARRIS, HUMAN LEARNING 143–44 (1985) (discussing the benefits of imagery in learning and comprehending language, in encoding information for transfer to long-term memory, and in performing different types of mental rotation operations); Feng et al., *supra* note 240, at 248 (“Words with higher concreteness are easier to imagine, comprehend, and memorize.”)).

²⁴⁵ See LUTZ, *supra* note 244, at 233.

²⁴⁶ PAIVIO, *supra* note 241, at 170–71 (“[I]t is known that semantic or associative overlap is generally higher among abstract than among concrete words”); *id.* at 233 (“Analysis of the definitions showed that the concrete words, relative to the abstract ones, elicited longer definitions [C]oncrete words were generally easier to define”). Professor Paivio summarized studies finding that abstract words are more liable to different interpretations by the speaker and listener. *Id.* (discussing how concrete words are subject to “fewer nonfluencies of other types”).

of whether a “particular” is subsumed within a word’s definition. Discipline manifests in two ways. First, there is an increased “maintenance” of established-particulars.²⁴⁷ Once a person has evaluated whether a certain particular is subsumed within a definition of a given word, and made a commitment one way or the other, she will resist reevaluating that established commitment. Second, the evaluation of candidate-particulars is more mechanical.²⁴⁸ When a person is faced with the issue of whether a candidate-particular is subsumed within the definition of a given word, she will not feel comfortable imposing her preferences freely. Rather, she will be compelled to analogize the candidate-particular to either established-particulars (i.e., those already deemed to be subsumed within the word) or established non-particulars (i.e., those already deemed to be not subsumed within the word).²⁴⁹ Assume a person is charged to interpret whether the candidate-particular “Dachshund” is subsumed by the word “dog.” The interpreter will likely conclude that a “Dachshund” is in fact a “dog” through an analogy to the established-particulars of “dog.” To illustrate: Although “smaller” and “darker” than a “Samoyed,” the “Dachshund” shares with the “Samoyed” the characteristics of “being a mammal,” “walking on its toes,” “having non-tractile claws,” and “possessing a body adapted for chasing prey.” The degree of discipline in the interpretive program for concrete words is greater than that for abstract words. When it comes to abstract terms, persons feel far less discomfort using their preferences freely to reassess established-particulars and assess candidate-particulars.

In both life and adjudication, justices are called upon to interpret words.²⁵⁰ Many such words (e.g., “excessive,” “process,” “liberty,” “establishment,” “unreasonable,” and “equality”) are relatively abstract. Others (e.g., “days,” “bail,” “war,” and “houses”) are more concrete. Along this continuum the word “search” registers as relatively concrete. The MRC Psycholinguistics Database rates the word “search” 371 for concreteness and 402 for imagability.²⁵¹ “Search” is therefore easier to learn, harder to

²⁴⁷ See *id.* at 12.

²⁴⁸ See *id.* at 13.

²⁴⁹ David E. Rumelhart, *Toward a Microstructural Account of Human Reasoning*, in SIMILARITY AND ANALOGICAL REASONING 298, 301 (1992) (“Most everyday reasoning does not involve much in the way of manipulating mental models. It probably involves even less in the way of formal reasoning. Rather, it probably involves assimilating the novel situation to other situations that are in some way similar—that is, reasoning by similarity.”); see Sunstein, *supra* note 229, at 743 (discussing analogical reasoning).

²⁵⁰ See, e.g., Cunningham, *supra* note 6, at 543–44 (discussing four interpretations of the word “search” that pervade Fourth Amendment jurisprudence).

²⁵¹ See MRC Psycholinguistics Database. The MRC Psycholinguistic database is a leading source for “concreteness” ratings. Feng et al., *supra* note 240, at 245. The database aggregated survey data of participants who were asked to score the concreteness and imagery of words based on a numerical scale from 1 to 7. *Id.* at 246. The database contains 150,837 words and provides concreteness ratings for 8228 words. *Id.* Words referring to objects, materials, or persons tend to receive higher scores for concreteness. M.P. TOGLIA & W.F. BATTIG, HANDBOOK OF SEMANTIC WORD NORMS (1978).

forget, and defined with more discipline than its more abstract constitutional counterparts.²⁵² As a result, the justices' interpretation of "search" is marked by tendencies to (1) not reconsider established commitments (i.e., old "search" issues) and (2) evaluate candidate-particulars (i.e., new "search" issues) by resort to analogical reasoning.²⁵³ A good illustration of how concreteness constrains "search" interpretations is found in Justice Brennan's dissenting opinion in *Lopez v. United States*:

In every-day talk, as of 1789 or now, a man "searches" when he looks or listens. Thus we find references in the Bible to "searching" the Scriptures (John V, 39); in literature to a man "searching" his heart or conscience; in the law books to "searching" a public record. None of these acts requires a manual rummaging for concealed objects. . . . [J]ust as looking around a room is searching, listening to the sounds in a room is searching. Seeing and hearing are both reactions of a human being to the physical environment around him—to light waves in one instance, to sound waves in the other. And, accordingly, using a mechanical aid to either seeing or hearing is also a form of searching. The camera and the dictaphone both do the work of the end-organs of an individual human searcher—more accurately.²⁵⁴

The concreteness constraint is further reflected in Justice Black's observation, in *Berger v. New York*, that "[i]t simply requires an imaginative transformation of the English language to say that conversations can be searched and words seized."²⁵⁵

²⁵² The concreteness of "search" does not necessarily mean that the justices turn to common sense interpretations of the term "search." Cf. Cunningham, *supra* note 6, at 541–42 (advocating a "common sense" approach to interpretation of "search").

²⁵³ It is not that the meanings (judicial or otherwise) of terms do not evolve over time, but rather that a particular interpreter will tend not to redefine a term during her life. See Rumelhart, *supra* note 249.

²⁵⁴ 373 U.S. 427, 459 (1963) (Brennan, J., dissenting) (quoting *United States v. On Lee*, 193 F.2d 306, 313 (2d Cir. 1951) (Frank, J., dissenting)); see also *Arizona v. Hicks*, 480 U.S. 321, 325 (1987) ("A search is a search, even if it happens to disclose nothing but the bottom of a turntable."); Jim Chen, *Law as a Species of Language Acquisition*, 73 WASH. U. L. Q. 1263, 1295 (1995) ("Every native speaker of American English knows these simple words and is prepared to debate their meaning, even in this legal context."); Richard A. Epstein, *A Common Lawyer Looks at Constitutional Interpretation*, 72 B.U. L. REV. 699, 703 (1992) ("No one would need, for example, an elaborate theory of interpretation to explain why 'commerce' does not include manufacture and agriculture . . .").

²⁵⁵ *Berger v. New York*, 388 U.S. 41, 78 (1967) (Black, J., dissenting) ("This literal language imports tangible things, and it would require an expansion of the language used by the framers, in the interest of 'privacy' or some equally vague judge-made goal, to hold that it applies to the spoken word."). For an analysis of how the arc of *Olmstead* and the failure of

But it cannot be forgotten that today’s interpretations of “search” are not straightforward. The justices are no longer formally charged with simply interpreting the word “search.” Instead they have been instructed that “search” is linked to the definition of a different term (i.e., “reasonable expectations of privacy”).²⁵⁶ The effect of “linked” definitions on the interpretation of a concrete term (like “search”) is highly contextual.²⁵⁷ When the linked definition is *concrete*, the linked term will impact the interpretative exercise. But when the linked term is *abstract*, it will have little to no impact. Under such circumstances the interpreter will experience discomfort evaluating candidate-particulars of the linked definition without reference to her pre-existing understandings of the underlying concrete term. For instance, assume that some entity (i.e., teacher, court) links to the concrete word “car” the abstract concept of “a thing that pleases people.” And assume that an interpreter is tasked to evaluate whether an “Olympic medal” is subsumed by this new abstract definition of “car.” Overwhelmed by the wide discretion of the new abstract definition, the interpreter will feel some need to cling to her old definition of “car.” This will lead her to artificially cabin the new abstract definition of “car” along the lines of, say, “the elements of cars that please people.” Because this will include “safety” and “mobility,” but not “prizes” or “recognition,” it is far from certain whether the interpreter would hold an “Olympic medal” to be a “car.” Now compare this to a situation in which an entity links to “car” a concrete definition like “anything made of metal.” Here the same interpreter, this time afforded much less discretion, will find it much easier to isolate her analysis of “Olympic Medal” from her pre-existing definition of “car.” The upshot here is that the imposition of an abstract redefinition will not significantly reorient the interpretation of a concrete term.

The *Katz* redefinition of “search” includes abstract terms like “reasonable,” “expectations,” and “privacy.”²⁵⁸ As a result, it would be surprising if the standard

Katz are explained by the atomic code (which is in turn explained, in part, by concreteness), see Part III.A.

²⁵⁶ See, e.g., *Smith v. Maryland*, 442 U.S. 735 (1979); *Katz v. United States*, 389 U.S. 347 (1967). It is arguable whether “search” was “redefined” in the pre-*Katz* era. See also *United States v. Jones*, 132 S. Ct. 945 (2012) (supplementing the *Katz* test with a property test). Of course, it is too early to speculate how the atomic code will interact with the standard from *Jones*.

²⁵⁷ See PAIVIO, *supra* note 241, at 170 (explaining that abstract paired nouns are at a disadvantage relative to concrete paired nouns because abstract nouns lack referential interconnections in imagery). This simply changes the *direction* of interpretations—not the *process* of interpretation. When a concrete term is redefined with another concrete term there is a short-term benefit (as analogical reasoning can be bypassed and preferred outcomes reached). But in the future interpretation of the concrete redefinition the interpreter will find herself bound by a new analogical pressures (pegged to the concrete redefinition). In this sense one atomic constraint is traded for another.

²⁵⁸ “Reasonable” has an MRC imagery rating of 305. MRC Psycholinguistics Database. The terms “expectations” and “privacy” were not tested for “concreteness” or “imagability.” *Id.* It is important to note that there is a compounding effect when a definition contains multiple

“reasonable expectations of privacy” had a significant impact on the justices’ interpretation of the concrete term “search.” The same goes for most of the redefinition proposals found in the search-and-seizure literature (which invariably turn on abstract concepts like “trust,” “security” or “reliability”).²⁵⁹ Like with “reasonable expectations of privacy,” these redefinitions are insufficiently concrete to inhibit the interpreter from deferring to her interpretive program for “search.” Unaffected by the linked abstract redefinition (“reasonable expectations of privacy”), the justices resort to their interpretive rules for the concrete term “search”: (1) maintaining their commitments to old issues and (2) using analogical reasoning to evaluate new issues.²⁶⁰

2. Calibrated Retroactivity

A second root cause of the atomic code is the justices’ demand for a “calibrated retroactivity” of criminal procedural rules.²⁶¹ Because under the retroactivity rules at least a handful (and as many as thousands) of cases will be impacted by a given change in constitutional criminal procedure rules, the Court has, over the decades,

abstract words. *PAIVIO*, *supra* note 241, at 123 (stating that abstract terms depend on contextual cues to develop meaning). For instance, the definition “anything made of metal” would be less abstract than “anything *reasonably* made of metal” which would be less abstract than “anything *expected* to be *reasonably* made of metal.”

²⁵⁹ See *supra* note 170 and accompanying text. The atomic code would apply, it seems, no matter how the concrete term “search” was redefined—be it by an abstract or concrete term. Concrete redefinitions constrain justices just like concrete original terms. For example, in the *Olmstead* era a majority of the justices during that period analyzed “search” based on the standard of a “physical intrusion into a constitutionally protected area.” See *Olmstead v. United States*, 277 U.S. 438 (1928); see also *On Lee v. United States*, 343 U.S. 747 (1952); *Goldman v. United States*, 316 U.S. 129 (1942). This standard is relatively “concrete” (“physical” and “intrusion” are concrete terms). It is disputable whether this standard constituted an actual “redefinition” of “search” (similar in function to *Katz*’s redefinition). One might instead frame this standard as simply explanatory of past holdings (for, unlike *Katz*’s redefinition, the pre-*Katz* standard was adopted by only a majority of the justices). See *On Lee*, 343 U.S. at 565 (Douglas, J., dissenting); *Goldman*, 316 U.S. at 136 (Stone, J., dissenting); *Olmstead*, 277 U.S. at 449 (Brandeis, J., dissenting). Nonetheless the essential point is that, assuming *arguendo* there was a redefinition of “search” in the Court’s pre-*Katz* decisions, it was a *concrete* redefinition (“physical intrusion” is relatively concrete), and concrete redefinitions subject justices to atomic constraints similar to those created by concrete original terms. In both situations the justices are called upon to interpret words that are defined with high degrees of precision. See *supra* notes 250–53 and accompanying text.

²⁶⁰ The “concreteness” explanation is different and more complex than explanations hinging on only the vagueness of *Katz*. See *supra* Part I.B.3. The ineffectiveness of an abstract redefinition is, after all, substantially enhanced by its imposition upon a *concrete* term. As a result, any description of *Katz*’s failure which overlooks the concreteness of “search” is incomplete.

²⁶¹ See, e.g., *Schiro v. Summerlin*, 542 U.S. 348, 352 (2002) (“[W]e give retroactive effect to only a small set of ‘watershed rules of criminal procedure implicating the fundamental fairness and accuracy of the criminal proceeding.’” (quoting *Saffle v. Parks*, 494 U.S. 484, 495 (1990) (internal quotations omitted))).

incorporated law enforcement expectations into its “search” decisionmaking.²⁶² While law enforcement expectations rarely isolate a single *acceptable* holding, they do nonetheless identify, in all cases, a band of *unacceptable* holdings.²⁶³ The following paragraphs document the justices’ concern for misallocations of rewards and punishments, describe the rules of retroactivity, and explain how the historical tension between misallocations and retroactivity has contributed to the formation of the atomic code.

Justices believe that government officials (be they jurists or police officers) should adhere to the reasonably clear terms of their official position.²⁶⁴ As a result the justices have some level of discomfort (1) imposing punishments on officials who abide by the terms of their office;²⁶⁵ and (2) granting rewards to officials who flout such terms.²⁶⁶ In the context of criminal procedure these types of “misallocations,” if left unmitigated, can be particularly expensive.²⁶⁷ First, the Court’s criminal procedure decisions can affect dozens, if not thousands, of non-final cases.²⁶⁸ Second, these decisions impact both civil suits and the exclusion of inculcating evidence (which affect, among other things, payment of damages, career trajectories, and the conviction of criminals).²⁶⁹

The Court’s sensitivity to the misallocation of rewards and punishments has been apparent in several areas of constitutional criminal procedure. “Law enforcement reliance” was explicitly incorporated into the Court’s standard for retroactivity.²⁷⁰

²⁶² The *Davis* Court’s expansion of the good-faith exception to the exclusionary rule seems to partially correct the retroactivity concerns of the justices over the past century. *Davis v. United States*, 131 S. Ct. 2419, 2430 (2011) (“Our retroactivity jurisprudence is concerned with whether . . . a new rule is available on direct review as a *potential* ground for relief.”). See *infra* notes 265–69 and accompanying text.

²⁶³ See *infra* Part II.B.3.

²⁶⁴ See generally THOMAS HOBBS, *THE LEVIATHAN* (1651); JOHN LOCKE, *TWO TREATISES OF GOVERNMENT* (1689); JOHN RAWLS, *A THEORY OF JUSTICE* (1971).

²⁶⁵ See, e.g., *Davis*, 131 S. Ct. at 2427–28 (explaining that the deterrence rationale of the exclusionary rule is not supported when police act with an “objectively reasonable good faith belief that their conduct is lawful” (internal quotations omitted)).

²⁶⁶ *Id.* at 2431–32 (“It is true that, under the old retroactivity regime of *Linkletter*, the Court’s decisions on the ‘retroactivity problem in the context of the exclusionary rule’ did take into account whether ‘law enforcement officers reasonably believed in good faith’ that their conduct was in compliance with governing law.” (quoting *United States v. Peltier*, 422 U.S. 531, 535–37 (1975))).

²⁶⁷ See, e.g., *id.* at 2427 (discussing how exclusion exacts a heavy toll on the judicial system and on society).

²⁶⁸ See *id.* (discussing *Arizona v. Gant*, 129 S. Ct. 1710 (2009), and the Eleventh Circuit’s decision below to apply that rule to *Davis*, though it was decided while his appeal was pending); *Williams v. United States*, 401 U.S. 646, 663 (1971) (Brennan, J., concurring) (discussing the “substantial number of searches” that had been carried out in reliance on the Court’s pre-*Chimel* rules regarding searches incident to arrest).

²⁶⁹ See, e.g., *United States v. Leon*, 468 U.S. 897, 907 (1984) (“The substantial society costs exacted by the exclusionary rule for the vindication of Fourth Amendment rights have long been a source of concern.”).

²⁷⁰ *Griffith v. Kentucky*, 479 U.S. 314, 320 (1986); *United States v. Johnson*, 457 U.S.

And, as applied, “reliance” by law enforcement officials has led to findings of non-retroactivity of a handful of rules.²⁷¹

In expanding the exclusionary rule’s good-faith exception to reliance on binding appellate precedent, the *Davis* Court explained that, “It is one thing for the criminal ‘to go free because the constable has blundered.’ It is quite another to set the criminal free because the constable has scrupulously adhered to governing law.”²⁷² The *Davis* majority further explained that:

Responsible law-enforcement officers will take care to learn “what is required of them” under Fourth Amendment precedent and will conform their conduct to these rules. But by the same token, when binding appellate precedent specifically *authorizes* a particular police practice, well-trained officers will and should use that tool to fulfill their crime-detection and public-safety responsibilities. An officer who conducts a search in reliance on binding appellate precedent does no more than “ac[t] as a reasonable officer would and should act” under the circumstances.²⁷³

Another doctrine influenced by a concern for misallocations is qualified immunity.²⁷⁴ The current rules for qualified immunity provide that only when an official violates a “clearly established” right may a plaintiff proceed with a damages action.²⁷⁵ This standard generally requires the plaintiff to point to case law which predates the official’s alleged improper conduct, involves materially similar facts, and truly compels the conclusion that the plaintiff had a right under federal law.²⁷⁶ As a result, qualified immunity applies whenever an official can establish that he relied upon a court decision that was in effect at the time of his action (even if the decision was overturned after such action).²⁷⁷ The rules of qualified immunity, along with the case law on retroactivity

537, 544 (1982); *Stovall v. Denno*, 388 U.S. 293, 297 (1967); *Linkletter v. Walker*, 381 U.S. 618 (1965).

²⁷¹ See, e.g., *Williams v. United States*, 401 U.S. 656 (1971); *Desist v. United States*, 394 U.S. 244 (1969); *Johnson v. New Jersey*, 384 U.S. 719 (1966).

²⁷² *Davis v. United States*, 131 S. Ct. 2419, 2434 (2011) (quoting *People v. Defore*, 150 N.E. 585, 587 (N.Y. 1926)).

²⁷³ *Id.* at 2424 (citations omitted) (internal quotation marks omitted).

²⁷⁴ See *Harlow v. Fitzgerald*, 457 U.S. 800, 807 (1982) (discussing the balance qualified immunity strikes between the need to protect officials who must use their discretion and the need to provide a remedy to citizens whose rights have been infringed).

²⁷⁵ See, e.g., *Pearson v. Callahan*, 129 S. Ct. 808 (2009); *Saucier v. Katz*, 533 U.S. 194 (2001); *Harlow v. Fitzgerald*, 457 U.S. 800 (1982).

²⁷⁶ See, e.g., *Ensley v. Soper*, 142 F.3d 1402, 1406 (11th Cir. 1998).

²⁷⁷ See, e.g., *Jenkins v. Talladega City Bd. of Educ.*, 115 F.3d 821, 827 (11th Cir. 1997) (en banc) (“Public officials are not obligated to be creative or imaginative in drawing analogies from previously decided cases.” (internal quotation marks omitted)).

and the exclusionary rule, demonstrate that the justices are highly concerned with misallocating rewards and punishments within the law enforcement community.

3. Calibrating Rules of Retroactivity

These expressed concerns aside, the Court’s longstanding rules on retroactivity have mandated that nearly every instance of criminal procedure adjudication has presented a significant risk of collateral misallocations of punishments and rewards. The traditional rule was that decisions were to be applied retroactively to all cases not yet final. While the likelihood of retroactive application has fluctuated over the decades, and it is not uncommon for a rule to be ultimately deemed non-retroactive,²⁷⁸ there has been no point where a justice could have any confidence that a “search” rule at the time of its identification would not be applied retroactively. To reduce or eliminate these risks the Court has instituted various structural reforms. In the context of damage suits, for example, the Court has, on one hand, recognized a “clear break” rule for civil retroactivity, and, on the other, immunized officials from such suits but for the violation of a “clearly established” right.²⁷⁹ Yet when it has come to misallocations concerning the application of the exclusionary rule to inculpatory evidence, the Court’s efforts at structural reform have been more meager (at least as a historical matter).²⁸⁰ As a result any proposed change in criminal procedure rules has, as a practical matter, promised to cause in non-final cases a misallocation: either the suppression of evidence acquired by rule-abiding officials or the admission of evidence obtained by rule-flouting officials.²⁸¹

In the absence of structural reform regarding the exclusionary sanction, the justices have sought to manage the risk of misallocated exclusion through more informal means.²⁸² They have sought to accomplish this through a type of judicial reasoning that incorporates law enforcement expectations.²⁸³ To reduce the chances of exclusionary-rule misallocations the justices have tended to interpret criminal procedure rules in

²⁷⁸ See, e.g., *Williams v. United States*, 401 U.S. 656 (1971); *Desist v. United States*, 394 U.S. 244 (1969); *Johnson v. New Jersey*, 384 U.S. 719 (1966).

²⁷⁹ See, e.g., *Pearson v. Callahan*, 555 U.S. 223 (2009) (qualified immunity); *Chevron Oil Co. v. Huson*, 404 U.S. 97 (1971) (civil retroactivity).

²⁸⁰ Sometimes retroactivity was not automatic but merely likely. Moreover, there had been (particularly before 1966 and after 1982) no effort to restrict the application of the exclusionary sanction to such cases. *But see Davis v. United States*, 131 S. Ct. 2419 (2011) (ruling that the good-faith exception to the exclusionary rule extends to an officer’s reasonable reliance on binding appellate law). *Davis* will have some effect in reducing the risk that a new “search” interpretation will lead to a misallocation of rewards and punishments.

²⁸¹ See *infra* Part III.

²⁸² See *supra* Part II.B.2.

²⁸³ The rulings on retroactivity not only illustrate the Court’s concerns regarding the misallocations of rewards and punishments, but they also compound them. For the costs of misallocations emphasized in those cases were often overridden by the benefits of retroactivity. And so, to compensate for these costs the justices opted to interpret the Fourth Amendment, and, more particularly, the “search” term in a way to mitigate expensive misallocations.

a manner that is at least not deemed *unreliable* from the perspective of law enforcement.²⁸⁴ This means, first, that each justice feels compelled to interpret the “search” term consistently with her own past commitments. Second, it calls for the use of analogical reasoning to resolve new issues.²⁸⁵ If a justice is confronted by what is for her a “new” issue, then she will evaluate the issue by the most reliable means, which, more often than not, turns on analogical reasoning.²⁸⁶ As Professor Kerr has written:

From his internal perspective, the officer is likely to conclude that the Fourth Amendment places the same restriction on government access to e-mail that it places on government access to ordinary postal mail. He will then look in a Fourth Amendment treatise for the black letter rule on accessing postal mail. That treatise will tell him that accessing a suspect’s mail ordinarily violates the suspect’s “reasonable expectation of privacy,” and that therefore the officer must first obtain a warrant.²⁸⁷

A consequence of this form of reasoning is that justices are reluctant to resolve cases based on their pure juridical or policy preferences (including “reasonable expectations of privacy”).²⁸⁸ This is because such preferences, oftentimes unreliable from the perspective of law enforcement, enhance the likelihood of a misallocation of rewards and punishments.

Some questions undoubtedly arise. First, if the justices value “avoiding misallocations” then why do they defer to their individual commitments rather than past majority holdings? The answer is twofold. First, the justices actually believe in their individual assessments (and, by extension, they believe that some of the opposing interpretations are incorrect).²⁸⁹ Second, and more importantly, the justices’ concerns

²⁸⁴ Decisions of the Court can be incoherent across the continuum of “search” atoms without being unreliable within particular “search” atoms.

²⁸⁵ See Rumelhart, *supra* note 249, at 301 (“Most everyday reasoning does not involve much in the way of manipulating mental models. It probably involves even less in the way of formal reasoning. Rather, it probably involves assimilating the novel situation to other situations that are in some way similar—that is, reasoning by similarity.”); Sunstein, *supra* note 229, at 748 (“Some analogies, or perceptions of likeness, do not depend on arguments, but rest instead on the widely shared way that human beings order their world. We do not need an argument in order to say that one car is relevantly ‘like’ other cars; we take the point for granted; it is part of our language.”); *id.* at 741 (“Reasoning by analogy is the most familiar form of legal reasoning.”). See also Chen, *supra* note 254, at 1295 (explaining that laypeople debate the meaning of “search and seizure”).

²⁸⁶ Wasserstrom & Seidman, *supra* note 135, at 41 n.94 (“But there is no suggestion in *Griffith* that prior Supreme Court decisions should not be applied retroactively because police officers cannot be trusted to extrapolate accurately from them.”).

²⁸⁷ Orin S. Kerr, *The Problem of Perspective in Internet Law*, 91 GEO. L.J. 357, 365 (2003).

²⁸⁸ See *infra* Part II.B.2.

²⁸⁹ See *supra* notes 264–66.

over expensive misallocations can be satisfied without binding the justices to a rigid brand of *stare decisis*.²⁹⁰ Most of the time expensive misallocations can be prevented by simply limiting decisionmaking to a *band* of plausible rulings.²⁹¹ So while a justice’s concern for misallocations will constrain him from choosing any one outcome, it will almost never constrain him to choose one particular outcome. The result is that any option falling within the band of plausible rulings is thought to be sufficiently respectful of law enforcement expectations and, therefore, preventative of an expensive misallocation of rewards and punishments.

A second lingering question is that if the justices feared misallocations of rewards and punishments, then why did they create stringent retroactivity standards? The best answer is that the costs of misallocations, while undoubtedly real for the justices, were simply outweighed by the benefits of retroactivity.²⁹² This understanding is reflected by the Court’s insertion of a “reliability” analysis into its retroactivity standard.²⁹³ It is moreover reflected in the fact that “law enforcement reliability” proved dispositive in many Fourth Amendment retroactivity cases (particularly in the sixteen years between *Linkletter v. Walker*²⁹⁴ and *United States v. Johnson*).²⁹⁵ Along these lines it is likely that “behavioral” forces were also in play. While nearly all of the justices might have been sensitive to misallocations, it is important to keep in mind that it is the “winners” who write retroactivity policy. The justices who crafted the components of the modern rule of automatic retroactivity to non-final cases (in *Linkletter*, *Johnson*, and *Griffith*) were, after all, the winners in each of the respective underlying constitutional cases.²⁹⁶ Winning justices might very well be biased in their analyses of misallocations. They might, for one, think that the law enforcement community should have anticipated the change in constitutional rules.²⁹⁷ A winning justice might also look for special opportunities to extend the reach of “good” decisions (i.e., the ones he helped make).²⁹⁸

²⁹⁰ See *supra* notes 267–69 and accompanying text.

²⁹¹ See *supra* notes 270–77 and accompanying text.

²⁹² *United States v. Johnson*, 457 U.S. 537, 561 (1982) (“Failure to accord any retroactive effect to Fourth Amendment rulings would ‘encourage police or other courts to disregard the plain purport of our decisions and to adopt a let’s-wait-until-it’s-decided approach.’” (quoting *Desist v. United States*, 394 U.S. 244, 277 (1969) (Fortas, J., dissenting))).

²⁹³ *Stovall v. Denno*, 388 U.S. 293, 297 (1967); *Johnson v. New Jersey*, 384 U.S. 719, 728–29 (1966).

²⁹⁴ *Linkletter v. Walker*, 381 U.S. 618 (1965).

²⁹⁵ See, e.g., *United States v. Peltier*, 422 U.S. 531, 535–39 (1975); *Williams v. United States*, 401 U.S. 646, 651–55 (1971).

²⁹⁶ The *Mapp* majority extended its reasoning to all cases not yet final. *Mapp v. Ohio*, 367 U.S. 643 (1961). Every justice in the *Johnson* majority was in the *Payton* majority. See *Johnson*, 457 U.S. 537; *Payton v. New York*, 445 U.S. 573 (1980). And every justice in the *Griffith* majority was in the *Batson* majority (except Justice Scalia). See *Griffith v. Kentucky*, 479 U.S. 314 (1986); *Batson v. Kentucky*, 476 U.S. 79 (1986).

²⁹⁷ See *Desist v. United States*, 394 U.S. 244, 257–67 (1969) (Harlan, J., dissenting).

²⁹⁸ The reform of *Linkletter* was required for the *Payton* majority to extend their new rule to protect the petitioner in *Johnson*, 457 U.S. 537. And the closing of the “clear break” exception

It seems at least plausible that some of the justices in the majorities of the Court's retroactivity decisions were influenced by their preference to see "good" decisions applied retroactively.²⁹⁹

In sum, the justices' demand for a calibrated retroactivity of criminal procedure rules has caused justices to incorporate law enforcement expectations into their "search" decisionmaking. This incorporation of law enforcement expectations, coupled with the concreteness of the term "search," have been the primary causes of the atomic code of "search" interpretations. But I do not mean to suggest that these are the only two causes of the code. As it turns out, some of the "prevailing explanations" in the search-and-seizure literature have surely contributed to the formation of the atomic code. For example, a more concrete (i.e., less vague) *Katz* standard would have mitigated the interpretive impact of "search" concreteness, and, by extension, brought coherence (i.e., less atomism) to the "search" doctrine.³⁰⁰ The atomic code has also been facilitated by judicial preferences for a strict brand of *stare decisis*. Any justice's preference that "like cases be treated alike"—no matter the existence of themes or doctrinal charges—would undoubtedly help facilitate atomism. While it is right to recognize the variety of sources facilitating the formation of the atomic code, it is important to understand that none has been as influential as the concreteness of "search" or the judiciary's demand for a calibrated retroactivity of criminal procedure rules.³⁰¹ With the atomic code's sources established, the next part turns to examine its descriptive force.

III. THE ATOMIC CODE AND "SEARCH" PHENOMENA

The atomic code gives us a compelling positive account of the Court's "search" interpretations over the past century. This part demonstrates the code's descriptive force, distinguishes the code from the prevailing positive accounts in the search-and-seizure literature, and describes how the code constrains the justices' ability to interpret "search" in free accordance with their juridical and policy preferences.

of *Johnson* was required in order for the *Batson* majority to extend its new rule to the petitioners in *Kentucky*, 479 U.S. 314.

²⁹⁹ See *United States v. Williams*, 401 U.S. 646, 660 (1971) (Black, J., concurring) (voting to refuse to retroactively apply *Chimel v. California*, 395 U.S. 752 (1969), on the ground that *Chimel* had been wrongly decided). Compare *Desist*, 394 U.S. at 244 (Harlan, J., dissenting) (stating that "[r]etroactivity must be rethought"), with *Katz v. United States*, 389 U.S. 347, 6362 (1967) (Harlan, J., concurring) (supporting the majority in overruling *Goldman v. United States* because "its limitation on Fourth Amendment protection is, in present day, bad physics as well as bad law").

³⁰⁰ See *supra* notes 256–60 and accompanying text. In other words, the doctrine would have affected even those cases falling outside of the factual circumstances of the doctrine's originating case.

³⁰¹ For a discussion of how the uniqueness of the code's sources is not a necessary condition to establish the uniqueness of the code's positive account of "search" interpretations, see *supra* Part II.B.1.

A. Describing Fourth Amendment Phenomena

The atomic code states that justices view the “search” doctrine as atomistic, attribute content to new atoms based on analogical reasoning, and will not reassess atomic content after an initial attribution. To demonstrate the descriptive force of this positive account of “search” interpretations, the following paragraphs examine the two leading phenomena of “search” interpretations through the lens of the atomic code.

1. Describing the Arc of *Olmstead*

Any analysis of the *Olmstead* era might as well begin with the *Olmstead* opinions themselves.³⁰² The votes of all nine justices in *Olmstead* can be explained by the atomic code. There was a consensus among the justices that (1) “wiretapping” was a dormant atom;³⁰³ and (2) that content should be attributed to this atom through analogical reasoning.³⁰⁴ The justices split, however, on the proper analogy from which to draw.³⁰⁵ The five justices in the majority believed that the “wiretap” atom was best analogized to visual surveillance from a public vantage point.³⁰⁶ Drawing from their established “public vantage point” atoms these five justices attributed “non-search” content to their “wiretap” atoms.³⁰⁷ Justices Brandeis, Butler, and Stone preferred a different set of analogies.³⁰⁸ Justices Brandeis and Stone compared wiretapping to their established “sealed letter” atoms, and, alternatively, to their “home entry” atoms.³⁰⁹ Based on these

³⁰² *Olmstead v. United States*, 277 U.S. 438 (1928).

³⁰³ *Id.* at 464–66.

³⁰⁴ *Id.* at 464 (finding that the analogy to other “search” atoms “fails”).

³⁰⁵ *Compare id.* at 465, *with id.* at 474–75 (Brandeis, J., dissenting).

³⁰⁶ *Id.* at 465 (majority opinion).

³⁰⁷ Chief Justice Taft’s opinion analogized to the visual surveillance “non-searches” in *Lee and Hester*. *Id.* (comparing *Hester v. United States*, 265 U.S. 57 (1924), which held that visual surveillance from open fields does not violate the Fourth Amendment and *United States v. Lee*, 274 U.S. 559 (1927), which held that visual surveillance with use of searchlight from the high seas does not violate the Fourth Amendment). For further discussion of this point, see David P. Currie, *The Constitution in the Supreme Court: 1921–1930*, 1986 DUKE L.J. 65.

³⁰⁸ *Olmstead*, 277 U.S. at 474–75 (Brandeis, J., dissenting).

³⁰⁹ As to the “letter” atom, Justice Brandeis wrote that “[t]here is, in essence, no difference between the sealed letter and the private telephone message True, the one is visible, the other invisible; the one is tangible, the other intangible; the one is sealed, and the other unsealed; but these are distinctions without a difference.” *Olmstead*, 277 U.S. at 475 (Brandeis, J., dissenting) (quoting *Olmstead v. United States*, 19 F.2d 842 (9th Cir. 1927)). As to the “home entry” analogy, Brandeis wrote that “[the *Boyd* opinion reaches] farther than the concrete form of the case there before the court, with its adventitious circumstances; they apply to all invasions on the part of the Government and its employes [sic] of the sanctities of a man’s home and the privacies of life.” *Id.* at 474. *See also id.* at 474–75 (“It is not the breaking of his doors, and the rummaging of his drawers, that constitutes the essence of the offence; but it is the invasion

analogies they attributed “search” content to their “wiretap” atoms. Justice Butler, for his part, attributed the content of “search” to his “wiretap” atom through an analogy to a “trespass on rented property” atom.³¹⁰ Justice Holmes did not commit to one analogy or another and so, for him, the “wiretap” atom remained dormant.³¹¹

Olmstead’s progeny can be similarly explained by the atomic code. In *Goldman v. United States*,³¹² all eight voting justices felt that the government’s use of a detectaphone was not a dormant atom but rather governed by their “wiretap” atoms.³¹³ Justice Stone, the only carryover from *Olmstead*, maintained his previously stated position that the “wiretap” atom was attributed with “search” content.³¹⁴ Among fellow dissenters was Justice Murphy, who attributed “search” to his “wiretap” atom by adopting Brandeis’s analogies in *Olmstead*.³¹⁵ The five justices in the majority (Roberts, Black, Reed, Douglas, and Byrnes) endorsed the *Olmstead* majority’s analogies for “wiretap” atoms,³¹⁶ and, as a result, concluded that there had been no Fourth Amendment “search.”³¹⁷

In *On Lee v. United States*, the justices disagreed about which of their atoms governed. The five majority justices (Vinson, Reed, Jackson, Clark, and Minton) saw this case as, first and foremost, falling within their “informant” atoms.³¹⁸ As a result these five justices held that there was no search of On Lee.³¹⁹ Justice Frankfurter

of his indefeasible right of personal security, personal liberty and private property, where that right has never been forfeited by his conviction of some public offence—it is the invasion of this sacred right which underlies and constitutes the essence of Lord Camden’s judgment.”)

³¹⁰ See *id.* at 487 (Butler, J., dissenting) (“The contracts between telephone companies and users contemplate the private use of the facilities employed in the service. The communications belong to the parties between whom they pass. During their transmission, the exclusive use of the wire belongs to the persons served by it. Wire tapping involves interference with the wire while being used. Tapping the wires and listening in by the officers literally constituted a search for evidence. As the communications passed, they were heard and taken down.”).

³¹¹ Justice Holmes, in his dissenting opinion, observed that “[w]hile I do not deny it, I am not prepared to say that the penumbra of the Fourth and Fifth Amendments covers the defendant” *Id.* at 469 (Holmes, J., dissenting).

³¹² 316 U.S. 129 (1942).

³¹³ See *id.* at 135.

³¹⁴ See *id.* at 136 (Stone, J., dissenting). Justice Frankfurter joined in the dissent. *Id.*

³¹⁵ See *id.* (Murphy, J., dissenting).

³¹⁶ See *id.* at 135 (“[N]o reasonable or logical distinction can be drawn between what federal agents did in the present case and state officers did in the *Olmstead* case.”).

³¹⁷ See *id.* at 135. Justice Jackson abstained. *Id.* at 136.

³¹⁸ *On Lee v. United States*, 343 U.S. 747, 754 (1952). The majority explained that *On Lee* misplaced his trust in a conversant (the informant), and that the transmission of this conversation constituted a mere magnification, like “[t]he use of bifocals, field glasses or the telescope” *Id.* at 754.

³¹⁹ *Id.* at 751. Justice Black concurred there was no search (presumably for the reasons stated by the majority), but argued nonetheless that the evidence should have been suppressed on supervisory grounds. *Id.* at 758 (Black, J., concurring).

dissented on the ground that the act was, as in *Goldman*,³²⁰ governed by his “wiretap” atom and thus a “non-search.”³²¹ Justice Burton similarly felt that the act was controlled by the “wiretap” atom to which he attributed the content of “search” through an analogy to his “home entry” atom.³²² Curiously, Justice Douglas also dissented in *On Lee*.³²³ This is particularly notable in that Douglas had voted with the majority in *Goldman*.³²⁴ In *On Lee*, Justice Douglas wrote, “I now more fully appreciate the vice of the practices spawned by *Olmstead* and *Goldman*. Reflection on them has brought new insight to me. I now feel that I was wrong in the *Goldman* case.”³²⁵ Justice Douglas catalogued the facts of *On Lee* as part of his “wiretap” atom and then replaced the “non-search” content of such atom with “search” content.³²⁶ Douglas’s reassessment of his “no search” attribution from *Goldman* constituted one of the few instances where a justice has broken the atomic code of “search” interpretations.³²⁷

In *Silverman v. United States* eight justices (Warren, Black, Frankfurter, Clark, Harlan, Brennan, Whitaker, and Stewart) claimed that the government’s electronic surveillance through non-trespassory, but nonetheless unauthorized, physical penetration into the premises occupied by Silverman was governed by their “home entry” atoms (to which they attributed the content of “search”).³²⁸ For those in the majority who might have had previously attributed “non-search” to their “wiretap” atoms,³²⁹

³²⁰ *Goldman*, 316 U.S. at 136 (Frankfurter, J., concurring).

³²¹ *See On Lee*, 343 U.S. at 761–62 (Frankfurter, J., dissenting).

³²² *See id.* at 766–67 (Burton, J., dissenting) (“Chin Poy, without warrant and without petitioner’s consent, took with him the concealed radio transmitter to which agent Lee’s receiving set was tuned. For these purposes, that amounted to Chin Poy’s surreptitiously bringing Lee with him. The presence of the transmitter [in the house], for this purpose, was the presence of Lee’s ear.”). This is reminiscent of Justice Brandeis’s analogy to his “home entry” atom. *See Olmstead v. United States*, 277 U.S. 438, 474–75 (1928) (Brandeis, J., dissenting).

³²³ *On Lee*, 343 U.S. at 762 (Douglas, J., dissenting).

³²⁴ *Goldman*, 316 U.S. at 129.

³²⁵ *On Lee*, 343 U.S. at 762 (Douglas, J., dissenting).

³²⁶ *See id.* While it is unclear, it seems that Justice Douglas was drawing on Justice Brandeis’s “physical invasion” analogy. *Id.* at 765 (“The nature of the instrument that science or engineering develops is not important. The controlling, the decisive factor is the invasion of privacy against the command of the Fourth and Fifth Amendments.”).

³²⁷ The other documented instance was Justice Harlan’s dissent in *White*, where he changed the content of his “informant” atom to “search.” *See United States v. White*, 401 U.S. 745, 768–95 (1971) (Harlan, J., dissenting).

³²⁸ *Silverman v. United States*, 365 U.S. 505, 511–12 (1961). The *Silverman* majority emphasized that the *Goldman* and *On Lee* Courts “took pains explicitly to point out that the eavesdropping had not been accomplished by means of an unauthorized physical encroachment within a constitutionally protected area.” *Id.* at 510. The use of the spike mike did not constitute a trespass under local property law. *Id.* at 511.

³²⁹ *See id.* at 513 (Clark, J., and Whitaker, J., concurring) (“In view of the determination by the majority that the unauthorized physical penetration into petitioners’ premises constituted sufficient trespass to remove this case from the coverage of earlier decisions, we feel obliged to join in the Court’s opinion.”). It seems likely that this opinion, for Justice Clark, clarified

their *Silverman* vote implicitly cabined the scope of their “wiretap” atoms with the condition that there be “no physical encroachment into a constitutionally protected area.”³³⁰ The ninth justice, Justice Douglas, concurred, explaining that the case fell within his “wiretap” atom and, for that reason alone, should be deemed a “search.”³³¹

In *Lopez v. United States*, six justices (Warren, Black, Clark, Harlan, Stewart, and White) concluded that the facts of the case fell first within their “informant” atoms.³³² As a result they concluded that Lopez had not been searched.³³³ This conclusion allowed the six justices to avoid revisiting (or, for some, committing content to) their “wiretap” atoms.³³⁴ Three dissenting justices (Douglas, Brennan, and Goldberg) felt that the government’s acts fell within their “wiretap” atoms and thus constituted a “search.”³³⁵

The atomic code can also explain the opinion formally overruling *Olmstead*. In *Katz*, all eight voting justices agreed that the bugging of Katz’s public phone booth fell within their respective “wiretap” atoms.³³⁶ Three of the justices had already committed content to their “wiretap” atoms: Justice Douglas (“search”),³³⁷ Justice Brennan (“search”),³³⁸ and Justice Black (“non-search”).³³⁹ None of these justices reassessed their previous attributions. The other five justices (Warren, Harlan, Stewart, White, and Fortas) had yet to attribute content to their “wiretap” atoms.³⁴⁰ Writing for all five,

that his “wiretap” atom remained dormant. *See, e.g.,* *Berger v. New York*, 388 U.S. 41 (1967) (authored by Justice Clark). With that said, it is plausible that this opinion reflected Justice Whitaker’s attribution of “non-search” to his “wiretap” atom.

³³⁰ Some, though not all, of the justices in the eight-justice majority (1) narrowed their “wiretap” atom to those circumstances where there was no physical encroachment on a constitutionally protected area and then (2) attributed content to the resulting new atom through an analogy to a traditional entry into a home. *Silverman*, 365 U.S. at 511 (“At the very core stands the right of a man to retreat into his own home and there be free from unreasonable governmental intrusion” (citing *Entick v. Carrington*, 19 Howell’s State Trials 1029, 1066 (1765))).

³³¹ *Id.* at 513 (Douglas, J., concurring).

³³² *See Lopez v. United States*, 373 U.S. 427, 440 (1963).

³³³ *Id.* For some, the holding of “non-search” was simply a reassertion of an earlier formal attribution to their “informant” atom. *See Rathbun v. United States*, 355 U.S. 107, 110 (1957) (stating, with Justices Harlan, Clark, Warren, and Black, in the majority, “that either party may record the conversation and publish it.”). For the other justices, like Justices Stewart and White, the earlier attribution was likely informal.

³³⁴ *See Lopez*, 373 U.S. at 439. *But see id.* at 441 (Warren, C.J., concurring) (“Although the dissent assumes that this case and *On Lee* are in all respects the same, to me they are quite dissimilar constitutionally and from the viewpoint of what this Court should permit under its supervisory powers over the administration of criminal justice in the federal courts.”).

³³⁵ *Id.* at 447, 471 (Brennan, J., dissenting).

³³⁶ *Katz v. United States*, 389 U.S. 347, 353–54 (1967). Justice Marshall abstained. *Id.* at 359.

³³⁷ *See id.*

³³⁸ *See id.*

³³⁹ *See id.* at 364–65.

³⁴⁰ *Cf. Lopez v. United States*, 373 U.S. 427, 440 (1963) (resolving the case by resorting to their “informant” atoms).

Justice Stewart analogized the bugging of the phone booth to the “home entry” atom. Like Justice Brandeis some forty years earlier,³⁴¹ he linked the challenged eavesdropping to an intrusion of a physical place.³⁴²

During the *Olmstead* era, the justices evinced a deep commitment to (1) using analogical reasoning to attribute content to new atoms, and (2) not revisiting atomic content after an attribution.³⁴³ Once the justices gave content to the new factual circumstance of wiretapping through analogical reasoning, they spent the rest of their careers maintaining this position.³⁴⁴ The only exception to the code over the course of this thirty-nine-year period was Justice Douglas’s reattribution between *Goldman*³⁴⁵ and *On Lee*.³⁴⁶ All other evolutions in the Court’s view on electronic surveillance came exclusively through the replacement of justices. Through new confirmations, the Court became comprised of a majority of justices who had initially attributed “no search” to their “wiretap” atom. Viewed through the lens of the atomic code, the demise of *Olmstead* is not due to some judicial awakening regarding the perils of electronic surveillance, but rather the gradual replacement of analogies through the confirmation process.

2. Describing the Failure of *Katz*

The atomic code also provides a sufficient positive account of “search” interpretations in the post-*Katz* era. Through the lens of the atomic code, this subpart examines the case law exemplifying the failure of *Katz* to achieve its promise of an objective and evolving privacy standard. In particular, it reexamines the justices’ post-*Katz* “search” votes that were criticized as ratifying old doctrine (informants), deviating from public expectations of privacy (dog sniffs), and deferring to property concepts (aerial surveillance).

a. Informants

The ratification of pre-*Katz* rules, often cited as evidence of *Katz*’s failure, can be explained by the atomic code. Perhaps the leading example of ratification regarded the use of informants. Over the decades preceding *Katz*, the Court had regularly held that there was no warrant requirement to obtain statements voluntarily made to undercover

³⁴¹ *Olmstead v. United States*, 277 U.S. 438, 471 (1927) (Brandeis, J., dissenting).

³⁴² *See Katz*, 389 U.S. at 352 (1967) (“But what he sought to exclude when he entered the booth was not the intruding eye—it was the uninvited ear. He did not shed his right to do so simply because he made his calls from a place where he might be seen. No less than an individual in a business office, in a friend’s apartment, or in a taxicab, a person in a telephone booth may rely upon the protection of the Fourth Amendment.”(footnotes omitted)).

³⁴³ *See supra* Part I.A.2.

³⁴⁴ *See infra* note 453 and accompanying text.

³⁴⁵ 316 U.S. 129 (1941).

³⁴⁶ 343 U.S. 747 (1951).

agents or government informants.³⁴⁷ The first post-*Katz* case on this point was *United States v. White*,³⁴⁸ which involved a government informant who transmitted to law enforcement by means of radio various incriminating conversations between himself and White.³⁴⁹

In *White*, five justices held that the transmission of conversations by a government informant did not constitute a “search.”³⁵⁰ All five were seemingly influenced by the atomic code. Justice Black stated that *Katz* was wrongly decided and did not impact the pre-*Katz* decision of *On Lee*.³⁵¹ In effect, Black’s old “informants” atom (to which he attributed the content of “non-search” in *On Lee*) governed his decisionmaking in *White*. The other four justices in the majority (Burger, Stewart, White, Blackmun) seemed to split on whether the case was governed by a dormant atom. Their plurality opinion emphasized two lines of reasoning.³⁵² First, it stated that “[w]e see no indication in *Katz* that the Court meant to disturb that understanding of the Fourth Amendment or to disturb the result reached in the *On Lee* case, nor are we now inclined to overturn this view of the Fourth Amendment.”³⁵³ Second, the opinion alternatively explained that “[i]f the law gives no protection to the wrongdoer whose trusted accomplice is or becomes a police agent, neither should it protect him when that same agent has recorded or transmitted the conversations which are later offered in evidence to prove the State’s case.”³⁵⁴ It is likely that at least one of these four justices viewed the *White* case as governed by his old “informants” atom. This is the best explanation for the plurality opinion’s statement that *On Lee* remained good law. Of the justices in the plurality,

³⁴⁷ See generally *Hoffa v. United States*, 385 U.S. 293 (1966); *Lopez v. United States*, 373 U.S. 427 (1963); *On Lee v. United States*, 343 U.S. 747 (1952).

³⁴⁸ 401 U.S. 745 (1971).

³⁴⁹ *White*, 401 U.S. at 747.

³⁵⁰ *Id.* at 753.

³⁵¹ *Id.* at 754 (Black, J., concurring). For Justice Black, *On Lee* had been resolved on supervisory grounds (which, of course, would have been unnecessary had he believed the government had engaged in a “search.”). See *On Lee*, 343 U.S. at 758. Justice Black, who dissented in *Katz*, refused to join the *White* plurality decision which stated, among other things, “*Katz* . . . finally swept away doctrines that electronic eavesdropping is permissible under the Fourth Amendment unless physical invasion of a constitutionally protected area produced the challenged evidence.” *White*, 401 U.S. at 748 (plurality).

³⁵² See *id.* at 750, 752; *id.* at 760 (Douglas, J. dissenting) (explaining alternative grounds for the majority’s reasoning).

³⁵³ *Id.* at 750 (majority opinion).

³⁵⁴ *Id.* at 752. See also *id.* at 749 (“*Hoffa v. United States* . . . which was left undisturbed by *Katz*, held that, however strongly a defendant may trust an apparent colleague, his expectations in this respect are not protected by the Fourth Amendment when it turns out that the colleague is a government agent regularly communicating with the authorities. In these circumstances, ‘no interest legitimately protected by the Fourth Amendment is involved,’ for that amendment affords no protection to ‘a wrongdoer’s misplaced belief that a person to whom he voluntarily confides his wrongdoing will not reveal it.’” (quoting *Hoffa v. United States*, 385 U.S. 293, 302 (1966) (internal citations omitted))).

Justices White and Stewart are perhaps the most likely candidates (as each had been in the majority of the earlier “informants” case of *Lopez*).³⁵⁵ Yet the plurality’s analogy to the “misplaced trust” cases almost certainly means that some in the majority viewed the facts of *White* as falling within a “dormant” atom. For these justices the specific atom encompassing an informant’s transmission of conversations without permission was one to which they had not yet attributed content. To assign content to this new atom these justices utilized an analogy to their old atoms regarding “misplaced trust.”³⁵⁶ The likely candidates for this second group were the Court’s newest members—Chief Justice Burger and Justice Blackmun.

The interpretations of the dissenting justices in *White* were also regulated by the atomic code. The facts of *White* fell firmly within the old “informant” atom to which Justice Douglas had previously attributed “search” content.³⁵⁷ Justice Douglas, after all, had dissented in *On Lee*,³⁵⁸ and Justice Brennan, dissenting in *Lopez*,³⁵⁹ explained in explicit terms his belief that *On Lee* had been wrongly decided.³⁶⁰ Justice Marshall, though new to the Court, had likely assigned content to this particular atom through informal reflection.³⁶¹

This brings us to the dissenting opinion of Justice Harlan.³⁶² Harlan wrote that “third-party bugging” is a “search” as “it goes beyond the impact on privacy occasioned by the ordinary type of ‘informer’ investigation upheld in *Lewis* and *Hoffa*.”³⁶³ Yet, eight years earlier, Harlan had authored the majority opinion in *Lopez*, which held that an agent’s secret use of a wire recorder constituted a “non-search.”³⁶⁴ “Non-search” content for his “informants” atom was replaced by “search” content in his

³⁵⁵ *Id.* at 752.

³⁵⁶ *See White*, 401 U.S. at 752 (“If the law gives no protection to the wrongdoer whose trusted accomplice is or becomes a police agent, neither should it protect him when that same agent has recorded or transmitted the conversations which are later offered in evidence to prove the State’s case.”). Unfortunately, it is impossible to say with any conviction which of these two applications of the atomic code each of the four plurality justices took.

³⁵⁷ *Id.* at 756. Justice Brennan concurred with the plurality, but separately argued that “current Fourth Amendment jurisprudence interposes a warrant requirement not only in cases of third-party electronic monitoring . . . but also in cases of electronic recording by a government agent of a face-to-face conversation with a criminal suspect.” *Id.* at 755 (Brennan, J., concurring).

³⁵⁸ *On Lee*, 343 U.S. at 762 (Douglas, J., dissenting).

³⁵⁹ *Lopez v. U.S.*, 373 U.S. 427, 446–47 (Brennan, J., dissenting).

³⁶⁰ *Id.* at 447 (Brennan, J., dissenting) (“I believe that that decision was error, in reason and authority, at the time it was decided; that subsequent decisions and subsequent experience have sapped whatever vitality it may once have had; that it should now be regarded as overruled; that the instant case is rationally indistinguishable; and that, therefore, we should reverse the judgment below.”).

³⁶¹ *See White*, 401 U.S. at 795. It would have been surprising if Justice Marshall had not considered the *Olmstead* line of cases before joining the Court.

³⁶² *Id.* at 768 (Harlan, J., dissenting).

³⁶³ *Id.* at 787.

³⁶⁴ *Lopez*, 373 U.S. 427.

White dissent.³⁶⁵ By refusing to maintain atomic content for his “informants” atom, he seems to be the only one of the nine justices in *White* who broke from the dictates of the atomic code.³⁶⁶ Harlan’s change aside, the Court’s ratification of its pre-*Katz* “informants” rules seems to be a function of the atomic code.

b. Dog Sniffs

Judicial deviation from societal expectations of privacy is also cited as proof of *Katz*’s failed promise.³⁶⁷ As it turns out, this drift can be explained by the atomic code. In *United States v. Place*,³⁶⁸ six justices (Burger, White, Powell, Rehnquist, Stevens, and O’Connor) held that “the particular course of investigation that the agents intended to pursue here—exposure of respondent’s luggage which was located in a public place, to a trained canine—did not constitute a ‘search’ within the meaning of the Fourth Amendment.”³⁶⁹ The majority’s analysis was almost certainly governed by the atomic code. Finding the factual circumstances of *Place* to be new, the majority justices analogized to their “public vantage point” atoms.³⁷⁰ The dog sniff could be contrasted from the “public vantage point” atom because it provided some information about hidden items (the presence of contraband). But it was similar to the “public vantage point” atom in that it did not require the opening of a physical effect, did not look to expose noncontraband items, and did not cause any collateral exposure.³⁷¹ Based on these similarities, the six majority justices attributed “non-search” content to their new “dog sniff” atoms. Three concurring justices—Brennan, Marshall, and Blackmun—believed that the issue was not yet ripe.³⁷² For these three justices their “dog sniff” atoms remained dormant.³⁷³

³⁶⁵ See *White*, 401 U.S. at 768 (Harlan, J., dissenting); see also Maclin, *supra* note 88, at 92 (“Justice Harlan now believed that risk analysis and expectations theory was neither consistent with the holding of *Katz* nor compatible with the central purpose of the Amendment.” (footnote omitted)).

³⁶⁶ This is one of only two expressed deviations from the atomic code found in this study. The other was Justice Douglas’s reattribution between *Goldman v. United States*, 316 U.S. 129 (1942), and *On Lee v. United States*, 343 U.S. 747 (1952).

³⁶⁷ See *supra* Part I.B.2.

³⁶⁸ 462 U.S. 696 (1983).

³⁶⁹ *Id.* at 707.

³⁷⁰ *Id.* The respondent proposed an analogy to the luggage search in *United States v. Chadwick*, 433 U.S. 1 (1977).

³⁷¹ *Place*, 462 U.S. at 707 (“A ‘canine sniff’ by a well-trained narcotics detection dog . . . does not require opening the luggage. It does not expose noncontraband items that otherwise would remain hidden from public view, as does, for example, an officer’s rummaging through the contents of the luggage Thus, despite the fact that the sniff tells the authorities something about the contents of the luggage, the information obtained is limited.”).

³⁷² *Id.* at 710 (Brennan, J., concurring); *id.* at 720 (Blackmun, J., concurring). Justice Marshall joined in both concurring opinions.

³⁷³ See *id.* at 720 (Brennan, J., concurring) (analogizing to *Katz v. United States*, 389 U.S. 347 (1967)). *Id.* at 720 (Blackmun, J., concurring) (“[T]he detention of *Place*’s luggage amounted to, and was functionally identical with, a seizure of his person.”). During the term

Nearly two decades after *Place*, the Court handed down *Kyllo v. United States*.³⁷⁴ In *Kyllo* the Court faced the question of whether the use of a thermal-imaging camera on a home constituted a “search.”³⁷⁵ All nine considered their “thermal imaging” atoms dormant.³⁷⁶ Of the justices on the *Place* Court, three remained.³⁷⁷ All three—Rehnquist, Stevens, and O’Connor—attributed “non-search” content to their dormant “thermal imaging” atoms through analogy to their “dog sniff” atoms.³⁷⁸ Stevens, in dissent, wrote that

in *United States v. Place*, we held that a dog sniff that “discloses only the presence or absence of narcotics” does “not constitute a ‘search’ within the meaning of the Fourth Amendment,” and it must follow that sense-enhancing equipment that identifies nothing but illegal activity is not a search either.³⁷⁹

Although Justice Kennedy was not on the *Place* Court, he joined the three carry-over justices in their dissenting view that *Kyllo* was not searched.³⁸⁰ It seems clear that Justice Kennedy attributed this “non-search” content through analogical reasoning to his “dog sniff” atom.³⁸¹

after *Place*, the Court resolved *United States v. Jacobson*, 466 U.S. 109 (1984). The *Jacobson* majority concluded that the (1) manipulation of a package and (2) drug testing of a substance found in such package did not constitute a “search.” *Id.* As to the first point the majority emphasized that the manipulation was a “non-search” because it did not go beyond what a private actor (the shipping company) had already done. *Id.* at 112. This conclusion was based on the majority justices’ recognition of dormant “private manipulation” atoms and analogies to their established “public vantage point” atoms. As to the second point, the majority explained that the testing was a “non-search” because it would be unable to reveal any “private facts.” *Id.* at 114. The justices in the majority identified a dormant “testing of exposed substances” atom and analogized it to their “dog sniff” atom. *See id.* at 109, 114 (stating that its “conclusion is dictated by *United States v. Place*”).

³⁷⁴ 533 U.S. 27 (2001).

³⁷⁵ *Id.* at 29–30.

³⁷⁶ *See id.* at 33.

³⁷⁷ *See id.* at 29.

³⁷⁸ *See id.* at 42–44 (Stevens, J., dissenting). For these three justices, the *Kyllo* facts were either an old atom governed by *Place* or a new atom analogous to *Place*. Justice Kennedy, who was not on the *Place* Court, joined them. *Id.*

³⁷⁹ *Id.* at 47–48. An additional justification for these justices was based on an analogy to their “informants” atoms. *See id.* at 43 (Stevens, J., dissenting) (writing that “any member of the public might notice that one part of a house is warmer than another part or a nearby building if, for example, rainwater evaporates or snow melts at different rates across its surfaces”); *see also* Maclin, *supra* note 88, at 98 (“Indeed, the court of appeals, the Solicitor General’s office, and Justice Stevens all endorsed the notion that *Kyllo* assumed the risk that someone located outside might detect the heat emanating from his home.”).

³⁸⁰ *Id.* at 43–44.

³⁸¹ *See* Illinois v. Caballes, 543 U.S. 405, 405 (2005) (joining with the majority that a dog sniff is a “non-search”).

The majority of justices, however, concluded that the use of thermal imaging on *Kyllo*'s home constituted a "search."³⁸² Justice Scalia, writing for the majority, observed that: "[w]here, as here, the Government uses a device that is not in general public use, to explore details of the home that would previously have been unknowable without physical intrusion, the surveillance is a 'search' and is presumptively unreasonable without a warrant."³⁸³ The atomic code channeled the reasoning of the five majority justices (albeit likely in two different ways).³⁸⁴ The first faction of the majority included Justices Scalia, Thomas, and Breyer.³⁸⁵ These three concluded their "dog sniff" atoms (which they attributed with "non-search" content) offered a less compelling analogy than did their "home entry" atoms.³⁸⁶ Justice Scalia wrote that

in the case of the search of the interior of homes—the prototypical and hence most commonly litigated area of protected privacy—there is a ready criterion, with roots deep in the common law, of the minimal expectation of privacy that *exists*, and that is acknowledged to be *reasonable*.³⁸⁷

The second faction of the *Kyllo* majority was comprised of Justices Souter and Ginsburg.³⁸⁸ Although the atomic code likely governed the votes of these two justices, it is not exactly clear whether they based their "search" votes on an analogy to their "home entry" atoms or to their "dog sniff" atoms (to which they had seemed to have attributed, albeit informally, the content of "search").³⁸⁹

In the wake of *Kyllo*, the Court in *Illinois v. Caballes* revisited the *Place* rule regarding dog sniffs.³⁹⁰ Six justices reaffirmed *Place*.³⁹¹ Two of these justices—Stevens and O'Connor—simply applied the "non-search" content of their "dog sniff" atoms as attributed in *Place*.³⁹² None of the other four justices in the majority—Scalia, Kennedy,

³⁸² *Kyllo*, 533 U.S. at 33–35.

³⁸³ *Id.* at 40.

³⁸⁴ From the *Caballes* decision four years later we can discern the justices' respective positions on dog sniffs (even for those who were not on the Court at the time of *Place*). *Caballes*, 543 U.S. at 405.

³⁸⁵ *Kyllo*, 533 U.S. at 29.

³⁸⁶ See Maclin, *supra* note 88, at 72 ("In answering this inquiry, Justice Scalia saw a direct link between thermal imaging and the intrusions that writs of assistances and general warrants authorized, which prompted the Framers to adopt the Fourth Amendment." (citing *Kyllo*, 533 U.S. at 40)).

³⁸⁷ *Kyllo*, 533 U.S. at 34. Justice Scalia seemed to have left open the possibility that his majority opinion was not relying on *United States v. Karo*, 468 U.S. 705 (1984). *Id.* at 36.

³⁸⁸ *Id.* at 29.

³⁸⁹ See *Caballes*, 543 U.S. at 410 (Souter, J., dissenting); *id.* at 417 (Ginsburg, J., dissenting).

³⁹⁰ *Caballes*, 543 U.S. 405.

³⁹¹ *Id.* at 409–10.

³⁹² Justice Rehnquist did not participate in this case. *Id.* at 410.

Thomas, and Breyer—had been on the Court at the time of *Place*.³⁹³ Their decision-making in *Caballes* nonetheless seems to have been bound by the atomic code. They either applied their previous informal attribution of “non-search” content to “dog sniffs,” or they identified their “dog sniff” atoms as “dormant” and assigned it content through either the “thermal imaging” atom (Justice Kennedy) or the “public vantage point” atom (Justices Scalia, Thomas, and Breyer).³⁹⁴ Dissenting in *Caballes*, Justices Souter and Ginsburg appear to have been equally bound by the atomic code.³⁹⁵ Either they reasserted their previous informal attribution of “search” to their “dog sniff” atom, or they identified the “dog sniff” atom as “dormant,” then assigned it “search” content through analogies to either their “home entry” or “thermal imaging” atoms.³⁹⁶ In sum, the atomic code offers a compelling alternative account for the justices’ tendency to deviate from public expectations of privacy.³⁹⁷

c. Aerial Surveillance

The justices’ deference to property concepts, often cited as evidence of *Katz*’s failure, can also be explained by the atomic code.³⁹⁸ In *California v. Ciraolo*,³⁹⁹ five justices—Burger, White, Rehnquist, Stevens, and O’Connor—concluded that “naked-eye aerial observation from an altitude of 1,000 feet of a backyard within the curtilage of a home does not constitute a search under the Fourth Amendment.”⁴⁰⁰ The reasoning of all five justices was governed by the atomic code. Four justices attributed “non-search” content to their dormant “aerial surveillance” atoms through analogy to their old atoms regarding traditional visual surveillance from a “public vantage point.”⁴⁰¹

³⁹³ *United States v. Place*, 426 U.S. 696, 697 (1983).

³⁹⁴ *See* Maclin, *supra* note 88, at 106 (stating that by upholding dog sniffs as non-searches “the ‘right’ announced in *Kyllo* will most likely be confined to a privilege against the use of a thermal imager directed at one’s home”).

³⁹⁵ *See supra* note 389.

³⁹⁶ *Caballes*, 543 U.S. at 411 (Souter, J., dissenting); *id.* at 417 (Ginsburg, J., dissenting). Justice Souter wrote that “an uncritical adherence to *Place* would render the Fourth Amendment indifferent to suspicionless and indiscriminate sweeps of cars in parking garages and pedestrians on sidewalks.” *Id.* at 411 (Souter, J., dissenting) (“The infallible dog . . . is a creature of legal fiction.”); *id.* at 421–22 (Ginsburg, J., dissenting) (stating that *Caballes* was searched).

³⁹⁷ The criticized “deviations” of the justices include those votes that thermal imaging on the home and the use of fallible narcotics dogs are not “searches.” *Illinois v. Caballes*, 543 U.S. 405 (2005); *Kyllo v. United States*, 533 U.S. 27, 41 (2001) (Stevens, J., dissenting).

³⁹⁸ *See, e.g.*, *Florida v. Riley*, 488 U.S. 445 (1988); *Dow Chemical Co. v. United States*, 476 U.S. 227 (1986); *California v. Ciraolo*, 476 U.S. 207 (1986).

³⁹⁹ 476 U.S. 207 (1986).

⁴⁰⁰ *Dow*, 476 U.S. at 234–35 (describing the majority holding in *Ciraolo*).

⁴⁰¹ *Ciraolo*, 476 U.S. at 213–14. *See also* *Florida v. Riley*, 488 U.S. 445, 459 (1988) (Brennan, J., dissenting) (“Finding determinative the fact that the officer was where he had a right to be is, at bottom, an attempt to analogize surveillance from a helicopter to surveillance by a police officer standing on a public road and viewing evidence of crime through an open window or a gap in a fence.”); Maclin, *supra* note 88, at 82–83 (“Rather than address the

The Fourth Amendment, they observed, does not “preclude an officer’s observations from a public vantage point where he has a right to be and which renders the activities clearly visible.”⁴⁰² For these justices there was no “search” in the investigation of *Ciraolo* because the observations “took place within public navigable airspace . . . in a physically nonintrusive manner; from this point, they were able to observe plants readily discernible to the naked eye as marijuana.”⁴⁰³ Justice O’Connor, providing the fifth vote for the majority, analogized the case not to her “public vantage point” atom but rather to her “informant” atom.⁴⁰⁴ The dissenting justices were also beholden to atomic code. In dissent, Justices Powell, Marshall, Brennan, and Blackmun assigned “search” content to their dormant “aerial surveillance” atoms through analogy to their “curtilage” atoms.⁴⁰⁵

On the same day as *Ciraolo*, the Court handed down *Dow Chemical Co. v. United States*.⁴⁰⁶ *Dow* involved the EPA’s use of a mapping camera to surveil a manufacturing facility at between 12,000 and 1,200 feet.⁴⁰⁷ The facts of *Dow* differed from those in *Ciraolo* in that *Dow* (1) involved business surveillance⁴⁰⁸ and (2) enhancement of naked vision by an aerial mapping camera.⁴⁰⁹ Yet, despite these differences all nine justices maintained their *Ciraolo* vote.⁴¹⁰ The five justices in the majority—Burger, White, Rehnquist, Stevens, and O’Connor—found that the government’s use of the mapping camera did not disturb their analogies in *Ciraolo* to their “public vantage point” or “informant” atoms.⁴¹¹ The EPA, observed the majority:

was not employing some unique sensory device that, for example, could penetrate the walls of buildings and record conversations in

obvious tension between his reasoning and *Katz*, the Chief Justice [in *Ciraolo*] essentially confined the reach of *Katz* to a privilege against warrantless wiretapping.”)

⁴⁰² See *Ciraolo*, 476 U.S. at 213 (“The Fourth Amendment protection of the home has never been extended to require law enforcement officers to shield their eyes when passing by a home on public thoroughfares.”). The “public vantage point” atom has also been analogized to the use of artificial light to illuminate a darkened area. See, e.g., *Texas v. Brown*, 460 U.S. 730 (1983) (flashlight); *United States v. Lee*, 274 U.S. 559 (1927) (searchlight).

⁴⁰³ *Ciraolo*, 476 U.S. at 213 (citations omitted).

⁴⁰⁴ This was made clear two years later in *Florida v. Riley*, 488 U.S. 445, 453 (O’Connor, J., concurring) (“*Ciraolo*’s expectation of privacy was unreasonable not because the airplane was operating where it had a ‘right to be,’ but because public air travel at 1,000 feet is a sufficiently routine part of modern life that it is unreasonable for persons on the ground to expect that their curtilage will not be observed from the air at that altitude.”).

⁴⁰⁵ *Ciraolo*, 476 U.S. at 216–17 (Powell, J., dissenting) (analogizing “aerial surveillance” to “trespass of curtilage”). As further support, Justice Powell observed that “the actual risk to privacy from commercial or pleasure aircraft is virtually nonexistent.” *Id.* at 223.

⁴⁰⁶ 476 U.S. 227 (1986).

⁴⁰⁷ *Id.* at 229.

⁴⁰⁸ *Id.* at 240, 245.

⁴⁰⁹ *Id.* at 229.

⁴¹⁰ Compare *id.* at 228, with *Ciraolo*, 476 U.S. at 208.

⁴¹¹ See *Dow*, 476 U.S. at 238.

Dow’s plants, offices, or laboratories, but rather a conventional, albeit precise, commercial camera commonly used in mapmaking. . . . Although they undoubtedly give EPA more detailed information than naked-eye views, they remain limited to an outline of the facility’s buildings and equipment.⁴¹²

The dissenting justices in *Dow* also engaged in atomic code reasoning. Despite the business nature of the surveilled area, the justices (Brennan, Marshall, Blackmun, and Powell), as in *Ciraolo*, analogized the case to their old “curtilage” atoms.⁴¹³

Three years after *Ciraolo* and *Dow*, the Court decided *Florida v. Riley*.⁴¹⁴ *Riley* involved an officer who

circled twice over respondent’s property in a helicopter at the height of 400 feet. With his naked eye, he was able to see through the openings in the roof and one or more of the open sides of the greenhouse and to identify what he thought was marijuana growing in the structure.⁴¹⁵

Five justices concluded that this was a “non-search.”⁴¹⁶ For three justices in the majority—Rehnquist, White, and O’Connor—this was a straightforward reassertion of the content of their “aerial surveillance” atoms.⁴¹⁷ For the other two majority justices—Scalia and Kennedy—the atomic code could have governed their reasoning in various ways.⁴¹⁸ The Justices might have simply reasserted their previous informal attribution

⁴¹² *Id.* (“The Government asserts it has not yet enlarged the photographs to any significant degree, but Dow points out that simple magnification permits identification of objects such as wires as small as 1/2-inch in diameter.”).

⁴¹³ *Id.* at 250 (Powell, J., dissenting). The dissenters emphasized the existence of trade secret laws and Dow’s efforts to enforce such laws. *Id.* at 249. As a result, “EPA’s aerial photography penetrated into a private commercial enclave, an area in which society has recognized that privacy interests legitimately may be claimed.” *Id.* at 252.

⁴¹⁴ 488 U.S. 445 (1988).

⁴¹⁵ *Id.* at 448.

⁴¹⁶ *Id.* at 446, 452. There was nothing about the helicopter or its altitude or the closed nature of Riley’s greenhouse which took it out of the “aerial surveillance” atom. *Id.* at 451–52 (“But it is of obvious importance that the helicopter in this case was *not* violating the law, and there is nothing in the record or before us to suggest that helicopters flying at 400 feet are sufficiently rare in this country to lend substance to respondent’s claim that he reasonably anticipated that his greenhouse would not be subject to observation from that altitude.”).

⁴¹⁷ Justice O’Connor in *Riley* analogized from her “informant” atom. *See generally id.* at 452–55 (O’Connor, J., concurring). The other four justices in the *Riley* majority based the content of their “aerial surveillance” atoms on their “public vantage point” atoms. *See id.* at 450–52.

⁴¹⁸ Justice Scalia and Kennedy were the two non carry-over justices from the *Ciraolo-Dow* Court. It is of course not clear whether they had informally attributed “non-search” content to “aerial surveillance” before *Riley*, or whether in *Riley* they attributed “non-search” content

of “non-search” content to their “aerial surveillance” atoms. Or they might have attributed “non-search” content to their “aerial surveillance” atoms during deliberation in *Riley* through analogy to their “lawful vantage point” atoms. The dissenting justices in *Riley* were also governed by the atomic code.⁴¹⁹ The decision for three of these justices—Justices Brennan, Marshall, and Blackmun—required nothing more than a reapplication of the “search” content they had attributed to their “aerial surveillance” atoms in *Ciraolo-Dow*.⁴²⁰ Justice Stevens was the only justice to change votes between *Ciraolo-Dow* and *Riley*.⁴²¹ This suggests that, for Justice Stevens, the unique facts of *Riley* brought the case outside of his “aerial surveillance” atom (with content of “non-search”). Once freed from his “aerial surveillance” atom, this new “dormant” atom was assigned “search” content through analogy to his “wiretap” atom.⁴²² The “unique facts” of *Riley* were explained in Justice Brennan’s dissent:

While, as we held in *Ciraolo*, air traffic at elevations of 1,000 feet or more may be so common that whatever could be seen with the naked eye from that elevation is unprotected by the Fourth Amendment, it is a large step from there to say that the Amendment offers no protection against low-level helicopter surveillance of enclosed curtilage areas. To take this step is error enough.⁴²³

The justices’ reliance on property concepts, like their drift from societal expectations and their ratification of pre-*Katz* rules, can be explained by the atomic code.⁴²⁴ Blaming the atomic code makes sense. After all, the code insulates each part of “search” doctrine from the other; and it calls for particular behavior within each atom (i.e., old atoms are permanent in their content; new atoms are given content through analogous atoms). These commands regarding personal commitments and mechanical extrapolations in effect trump *Katz*’s charge to resolve cases based on an objective and evolving standard of privacy.⁴²⁵

to a dormant “aerial surveillance” atom through analogy to their “public vantage” or “informant” atoms.

⁴¹⁹ See, e.g., *id.* at 459 (Brennan, J., dissenting).

⁴²⁰ See *id.* at 456, 457.

⁴²¹ Compare *id.* at 446, with *Dow Chemical Co. v. United States*, 476 U.S. 227, 228 (1986) and *California v. Ciraolo*, 476 U.S. 207, 208 (1986).

⁴²² *Riley*, 488 U.S. at 460 (Brennan, J., dissenting).

⁴²³ *Id.* at 460–61.

⁴²⁴ The only evidence of a justice breaking from the atomic code in the post-*Katz* era is Justice Harlan’s dissent in *White*. See generally *United States v. White*, 401 U.S. 745, 768–95 (1971) (Harlan, J., dissenting).

⁴²⁵ While the justices continue to reiterate the language of *Katz*’s two-part test, these “paper rules” have had little impact on decisionmaking. See generally Maclin, *supra* note 88, at 72–96. “By 1979, *Katz*’s famous words were a meaningless slogan, often cited but lacking principle and influence. Expectations theory and risk analysis replaced *Katz* as the defining methodology for measuring the Fourth Amendment’s protection.” *Id.* at 79.

B. Contending Descriptive Claims

The atomic code offers a compelling positive account of the Court’s “search” interpretations of the past century. Furthermore, this account cannot be subsumed by the prevailing explanations found in the search-and-seizure literature.⁴²⁶ Each of these explanations, as discussed in Part I, rests on “judicial preferences” of some kind.⁴²⁷ But the code is different: for it inhibits the justices from incorporating their preferences (which, for some, would likely include “expectations of privacy”) into “search” decisionmaking. This alone renders it unique from the prevailing positive accounts.

Even if one assumes that the atomic code is not a constraint but a preference, many differences would still exist between it and the standard accounts of the Court’s “search” interpretations.⁴²⁸ For example, the atomic code can be distinguished from *stare decisis* (a common explanation for the length of the *Olmstead* era and the failure of *Katz*) in at least three significant ways. First, the atomic code hinges on the commitments of individual justices rather than those of Court majorities.⁴²⁹ Second, the atomic code reflects not a preference for “legitimacy” through the “appearance of constraint” but rather “reliability” for the sake of “fairness.”⁴³⁰ In other words, the atomic code will not constrain the justices from rulings that simply “appear unconstrained” so long as the decision is sufficiently “reliable” for law enforcement.⁴³¹ Third, the atomic code *precedes* the justice’s contemplation of doctrinal changes.⁴³² With “search” *stare decisis*, the Court uses past rulings to interpret prevailing doctrinal rules. The atomic code, on the other hand, altogether constrains contemplation of doctrinal changes.⁴³³

⁴²⁶ The code is unique from descriptions concerning the vagueness of *Katz*, the inaccessibility of empirical data, and the claims of unfaithful adjudication addressed by commentators.

⁴²⁷ See *supra* note 160. The vagueness and empirical explanations, as discussed in Part II, hold that the justices have become disenchanted with *Katz* and have, as a result, resolved cases based on old rules, subjective privacy views, or property concepts (either out of a sense of duty or to maximize juridical or policy preferences). The “preferences” explanation, on the other hand, holds that the justices never attempt a sincere application of *Katz* but pass straight to the maximization of juridical or policy preferences. See *supra* Part I.B.3.

⁴²⁸ See Schauer, *supra* note 186, at 672 n.57 (explaining that the rule with local priority will typically prevail over the more general one in a system of rule-based decisionmaking).

⁴²⁹ See *supra* notes 214–17 and accompanying text.

⁴³⁰ By “fairness” I mean the calibrated allocation of rewards and punishments to law enforcement. See *supra* Part II.B.2. This assumes, of course, that the code is motivated by any judicial preferences. For the “concreteness” source of the code does not operate on the level of consciousness. See *supra* discussion Part II.B.1.

⁴³¹ For example, while the *Katz* ruling might have suggested to some that the Court was “unconstrained” it was less likely to have suggested that the Court was “unreliable.” See *Berger v. New York*, 388 U.S. 41, 63–64 (1967) (holding that a New York statute authorizing eavesdropping without probable cause of a specific crime is unconstitutional); *Silverman v. United States*, 365 U.S. 505, 509 (1961) (finding that eavesdropping was unconstitutional because it was done by unauthorized penetration onto the premises).

⁴³² See *supra* notes 284–86 and accompanying text.

⁴³³ Respect for *stare decisis* will cause the justice to consciously weigh “legitimacy” concerns

Neither can the atomic code be subsumed by the explanation that there is a “hydraulics” effect resulting from the exclusionary rule.⁴³⁴ One variant of this hydraulics argument is that the justices modify their interpretation of “search” to avoid exclusion (i.e., the injustice of the “criminal going free.”).⁴³⁵ A second variant is that, due to exclusion’s role as the Fourth Amendment’s primary enforcement mechanism, the justices see fewer cases involving “non-criminals,” become less mindful of “sympathetic” search victims, and thus, over time, constrict their “search” rulings accordingly.⁴³⁶

The atomic code, even if viewed as a preference rather than a constraint, differs from both variants. First, the implications of the atomic code are neutral. The code can influence decisions in either pro-defendant or pro-government ways (whereas the exclusionary “drift” is uniformly pro-government). Second, the code reflects the justices’ deep concerns over fair allocations of rewards and punishments to law enforcement rather than fair punishments for criminals.⁴³⁷ As a result the atomic code forces the judiciary to consider a potentially far broader set of implications (i.e., not simply the case before the Court but rather all potentially impacted non-final cases). Third, the effects of the atomic code have not been remedied by the exclusionary rule’s “categorical exceptions.”⁴³⁸ While exclusionary rule exceptions can negate the influence of the “exclusionary” drift (at least its first variant), the recognition of an exception in one case does nothing, by itself, to prevent the risk of a misallocation of rewards and punishments to law enforcement in a host of other non-final cases.⁴³⁹

The code is also distinct from the brands of judicial pragmatism percolating within the search-and-seizure literature.⁴⁴⁰ Professor Kerr’s theory of “equilibrium adjustment” suggests that judicial interpretations of the Fourth Amendment are driven by the justices’ interests in maintaining the balance of power in the criminal justice system.⁴⁴¹

against sincere applications of the doctrinal charge. With the atomic code the justices are simply led to their decision without engaging with the doctrinal charge.

⁴³⁴ See *supra* note 190 and accompanying text.

⁴³⁵ See *supra* notes 189–93 and accompanying text.

⁴³⁶ *Id.*

⁴³⁷ See *supra* Part II.B.2.

⁴³⁸ See, e.g., *Nix v. Williams*, 467 U.S. 431, 446–47 (1984) (identifying an “inevitable-discovery” exception to the exclusionary rule). *But see* *Davis v. United States*, 131 S. Ct. 2419, 2429 (2011) (expanding the good-faith exception to include officers’ reasonable reliance on binding appellate precedent which will likely provide a structural remedy for the misallocation that is currently managed through maintenance and rigid extrapolations).

⁴³⁹ For instance, if the Court found that a new rule on “search” applied to non-final cases, but the case before the Court was unaffected due to a traditional exclusionary rule exception, this would not eliminate the justices’ fears that a misallocation of rewards and punishments will result in similar non-final cases (the vast majority of which would not be eligible for the exclusionary rule exception).

⁴⁴⁰ See Kerr, *supra* note 7, at 480.

⁴⁴¹ *Id.* (“When new tools and new practices threaten to expand or contract police power in a significant way, courts adjust the level of Fourth Amendment protection to try to restore the prior equilibrium.”).

Both equilibrium adjustment and the atomic code have a neutral impact. Yet one difference (beyond the code’s “constraining” orientation)⁴⁴² is that “equilibrium adjustment” views “search” interpretations as coherent (rather than atomistic) across the continuum of “search” cases. A second difference is that the atomic code is less forward-looking. The atomic code focuses on avoiding misallocations of rewards and punishments for *past* police behavior while “equilibrium adjustment” seeks to establish a set of rules to govern *future* interactions between citizens and law enforcement.⁴⁴³

C. Code Dynamics

The atomic code constrains the justices’ ability to resolve “search” issues in accordance with their juridical and policy preferences.⁴⁴⁴ Yet it would be an overstatement to say that the code renders judicial preferences wholly irrelevant to “search” decision-making. Justices, after all, regularly hold differing views about (1) the scope of certain atoms;⁴⁴⁵ (2) the priority of atoms in a given case;⁴⁴⁶ and (3) the best analogy with which to assign content to dormant atoms.⁴⁴⁷ Through the disposition of these three issues, the justices’ juridical and policy preferences (regarding structure, doctrine, interpretation, etc.) can wield some influence over their interpretation of “search.” For instance, a justice might be able to prioritize a particular old atom (with favorable

⁴⁴² See *infra* Part III.C.

⁴⁴³ It should be noted that the explanation relating to the “vagueness” of *Katz* is slightly related to the “concreteness” source of the atomic code. But the “concreteness” source is based not only on the vagueness (i.e., abstractness) of *Katz* but, more importantly, the concreteness of “search.” Any explanation of “search” jurisprudence which neglects the “concreteness” of “search” is incomplete. See discussion *supra* Part II.B.1. Moreover the vagueness explanation holds that, once disenchanted with *Katz*, the justices are liberated, in a sense, to defer to old rules, subjective views of privacy, or property concepts. The atomic code (of which “concreteness” of “search” is a source) does not liberate but rather constrains preferences. See discussion *infra* Part III.C.

⁴⁴⁴ By normative preferences I mean interpretive methodologies, doctrinal charges, constitutional structure, and policy preferences. See *supra* notes 182–93 and accompanying text.

⁴⁴⁵ See, e.g., *Florida v. Riley*, 488 U.S. 445, 456–57 (1988) (reflecting Justice Stevens’s decision that, unlike his colleagues, his “aerial surveillance” atom—with content of “non-search”—did not extend to the government’s surveillance in *Riley*); *Lopez v. United States*, 373 U.S. 427, 441 (1963) (Warren, C.J., concurring) (stating that his “informant” atom—with content of “non-search”—did not extend, like the “informant” atom of some of his colleagues, to include the government’s actions in *On Lee v. United States*, 343 U.S. 747 (1952)).

⁴⁴⁶ See *Silverman v. United States*, 365 U.S. 505, 512–13 (1961) (Douglas, J., concurring) (explaining that the majority was wrong to not resolve the case based on their “wiretap” atom); *On Lee*, 343 U.S. at 759–60 (Frankfurter, J., dissenting) (criticizing the majority for not disposing of the matter through their “wiretap” atom).

⁴⁴⁷ Compare *California v. Ciraolo*, 476 U.S. 207, 213–14 (1986) (analogizing “aerial surveillance” atom to “surveillance from public vantage point”), *with id.* at 220–23 (Powell, J., dissenting) (analogizing “aerial surveillance” to “trespass of curtilage”). Compare *Olmstead v. United States*, 277 U.S. 438, 466 (1928) (analogizing wiretapping to visual surveillance from a public vantage point), *with id.* at 474–76 (Brandeis, J., dissenting) (analogizing wiretapping to the entry of a home or the opening of a sealed letter).

content) over another old atom (with unfavorable content).⁴⁴⁸ Or she might artificially cabin the scope of an old atom with unfavorable content in order to claim a new “dormant” atom whose content will, with the right analogy, be more favorable.⁴⁴⁹

Nonetheless there are real limitations on the justices’ ability to manipulate the atomic code. First, there will be times when a justice feels uncomfortable dissecting his “search” atoms to the degree necessary to reach a preferred outcome. Obvious examples are those where an old atom unavoidably applies (e.g., dog sniffs),⁴⁵⁰ or where there is no credible analogy available for the justice to reach her desired content (e.g., the use of a beeper tracking device).⁴⁵¹ Second, the justices’ juridical and policy preferences will not always be aligned with a particular outcome.⁴⁵² And when faced with a “hard” case, a justice will be likely to defer to a sincere analysis of the scope, priority, and analogical issues concomitant to the atomic code. For instance, a justice might value “contextual privacy” but disfavor the “exclusionary rule.” In these cases, the justice—instead of making a tough choice between competing preferences—may resort to a straightforward application of the code. Third, the constraints of the atomic code strengthen with time: the longer the justice serves, the more attributions she makes, and the more difficult it becomes for her to navigate the atomic code to reach preferred outcomes. In a justice’s early years on the Court, she will have made fewer attributions and thus it will be easier to (1) claim a new “dormant” atom; and then (2) assign favorable content through analogical reasoning to an atom with preferred content. Yet, later in her career, manipulation becomes harder. Over time the atomic code boxes individual justices into “search” analyses that inhibit the incorporation of evolving juridical or policy preferences.⁴⁵³

⁴⁴⁸ See *Lopez*, 373 U.S. at 437–39 (prioritizing the “informant” atom in order to avoid forcing a vote on the “wiretap” atom); *On Lee*, 343 U.S. at 753–54 (same).

⁴⁴⁹ See Justice Stevens’s vote in *Florida v. Riley*, 448 U.S. 445 (1988). Justice Stevens concluded that the helicopter surveillance of Riley fell outside of his “aerial surveillance” atom. He then attributed “search” content to this dormant atom through analogy to his “curtilage” atom. See *id.* at 460.

⁴⁵⁰ See, e.g., *Illinois v. Caballes*, 543 U.S. 405, 408–10 (2005). See also *United States v. White*, 401 U.S. 745, 751–54 (1971) (revisiting whether obtaining inculpatory information through the use of a government informant is a “search”).

⁴⁵¹ *United States v. Knotts*, 460 U.S. 276, 285 (1983) (holding, without dissent, that the use of a beeper to track public movements did not constitute a “search”). As it turns out, the “sequencing” of cases is very important to outcomes. In *United States v. Miller*, 425 U.S. 435 (1976), Justice Stewart concluded that the acquisition of records subpoenaed from a bank was a “non-search.” *Id.* at 444. Three years later, in *Smith v. Maryland*, 442 U.S. 735 (1979), Justice Stewart held that acquisition of pen register device on phone company property was a “search.” *Id.* at 747 (Stewart, J., dissenting). In *Smith*, Justice Stewart analogized pen registers to the conversations in *Katz*. *Id.* at 747–48. Had *Smith* been decided before *Miller* then Justice Stewart would have very likely analogized the bank records in *Miller* to the phone records in *Smith* (and thus concluded that *Miller* was “searched”).

⁴⁵² See *supra* notes 182–93 and accompanying text.

⁴⁵³ The Court’s recent decision in *United States v. Jones*, 132 S. Ct. 945 (2012), illustrates a way for the justices to avoid the implications of the code. In *Jones*, a majority of the Court,

To illustrate this constraining impact of the atomic code, assume:

- (1) Justice A seeks to sincerely apply the objective and evolving privacy standard from *Katz*.
- (2) Every government act falls within one or more atoms (each of which has an “intrusiveness factor” ranging from 0 to 100).
- (3) Justice A holds that an act with an “intrusiveness factor” of 50 in a “wire-tap” atom violates a “reasonable privacy expectation.”
- (4) The societal context of wiretap usage evolves,⁴⁵⁴ and, as a result, Justice A decides that only those acts with an intrusiveness factor above 75 in a “wiretap” atom violate a “reasonable expectation of privacy.”

At this point the Court grants certiorari in a case with a government act in a “wiretap” atom with an intrusiveness factor of 66. The atomic code inhibits Justice A from revisiting his initial attribution (of “search” to his “wiretap” atom at intrusiveness factor 50). As a result, the Justice cannot claim that the government act with an intrusiveness factor of 66 is a “non-search” in his “wiretap” atom. To support a holding of “non-search” the only alternative is to claim that the case is governed by a different atom altogether. Yet, it is possible that the case cannot be credibly covered by an old atom with the preferred “no search” content. And although the Justice might alternatively claim that the case is governed by a new “dormant” atom, it is possible that there will be no old atoms with the preferred “non-search” content from which to analogize. All things being equal, these constraints strengthen over the Justice’s tenure on the bench.⁴⁵⁵ This simple model illustrates how the atomic code constrains justices from interpreting “search” cases in accordance with their juridical and policy preferences (which includes, at least for Justice A, “reasonable expectations of privacy”).

As a final note, one should be cautious before extrapolating the atomic code across the spectrum of “constitutional interpretation.” Certainly the concreteness of terms and the demand for calibrated retroactivity will have some influence on other areas

frustrated with the constraints of the code, simply redefined “search.” It supplemented the “reasonable expectations of privacy” standard with a trespass standard. *See id.* This offered the justices freedom from the code, thereby allowing them to reach a preferred outcome. But this new test will, with time, be constrained by its to its own atomic code (pegged not to the concrete term “search” but to the concrete term “trespass”). Paradoxically, the only way to faithfully apply the abstract “reasonable expectations of privacy” standard is for the justices to create new concrete definitions of “search” to justify outcomes that fit with “reasonable expectations of privacy.” Of course, this is not realistic. The motive to maintain abstraction will inevitably be forgotten as the Court cycles through concrete redefinitions.

⁴⁵⁴ Imagine, for instance, that the nation felt under imminent threat of terrorist attacks, and that one leading terrorism suspect was recently detected and eventually apprehended through the use of warrantless wiretapping.

⁴⁵⁵ *See supra* Part II.A.2.b. This assumes a certain degree of ideological consistency in the Justice’s rulings during the early phases of her tenure.

of constitutional law.⁴⁵⁶ But any shift from the particular to the general would require far greater analysis than that which is offered here. The objective of this article is simply to describe one particularly active subset of constitutional interpretation. If this positive account of “search” interpretations happens to offer insights into other contexts of constitutional interpretation, then all the better.⁴⁵⁷

CONCLUSION

The arc of *Olmstead* and the failure of *Katz* continue to hold the focus of many who teach, analyze, and interpret the Fourth Amendment. This article unveils a new positive account for these phenomena. Intimated in Justice Kennedy’s recent majority opinion of *City of Ontario v. Quon*, the atomic code holds that each justice treats the “search” doctrine as a collection of search “atoms,” assigns content to her atoms through analogical reasoning, and does not reassess the content of old atoms once there has been an initial attribution.⁴⁵⁸ The atomic code’s interpretive guidelines (i.e., “personal commitments” and “mechanical extrapolations”) inhibit not only the justices’ application of paper rules (i.e., *Katz*’s objective and evolving privacy standard)⁴⁵⁹ but, more generally, the justices’ incorporation of their juridical and policy preferences into “search” decisionmaking.⁴⁶⁰

⁴⁵⁶ It does seem, however, that the Court will avoid the atomic code when it interprets abstract text (either directly or pursuant to an abstract redefinition). See, e.g., *Atkins v. Virginia*, 536 U.S. 304, 311–12 (2002) (redefining the abstract concept of “Cruel and Unusual Punishment” with abstract “evolving standards of decency.”).

⁴⁵⁷ Although this article does not develop a prescription for the costs incurred by the atomic code, a potential remedy worth exploring is the complete severance of “reasonable expectations of privacy” from “search.” See *Miranda v. Arizona*, 384 U.S. 436 (1966) (creating a prophylactic rule that is unhinged from the constitutional text). Mitigating the force of the atomic code will allow justices who strive for sincere applications of the *Katz* test to reach results that are more aligned with societal expectations of privacy. See *supra* Part I.B.2.

⁴⁵⁸ See *supra* Part II.A.2.b.

⁴⁵⁹ *Katz v. United States*, 389 U.S. 347, 360 (1967) (Harlan, J., concurring).

⁴⁶⁰ See *supra* notes 182–93 and accompanying text. The Court avoids the code when it interprets abstract constitutional text either directly or pursuant to an abstract redefinition.