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FOUR MODELS OF FOURTH AMENDMENT PROTECTION

Orin S. Kerr

ARTICLES

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Orin S. Kerr*

The Fourth Amendment protects reasonable expectations of privacy, but the Supreme Court has refused to provide a consistent explanation for what makes an expectation of privacy "reasonable." The Court's refusal has disappointed scholars and frustrated students for four decades. This Article explains why the Supreme Court cannot provide an answer: no one test can accurately and consistently distinguish less troublesome police practices that do not require Fourth Amendment oversight from more troublesome police practices that are reasonable only if the police have a warrant or compelling circumstances. Instead of endorsing one approach, the Supreme Court has recognized four coexisting approaches. There are four models of Fourth Amendment protection: a probabilistic model, a private facts model, a positive law model, and a policy model. Using multiple models has a major advantage over using one model. It allows the courts to use different approaches in different contexts depending on which approach most accurately and consistently identifies practices that need Fourth Amendment regulation. Explicit recognition of the four models would advance this function, resulting in more accurate and consistent Fourth Amendment rules.

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INTRODUCTION

The reasonable expectation of privacy test is the central mystery of Fourth Amendment law. According to the Supreme Court, the Fourth Amendment regulates government conduct that violates an individual's reasonable expectation of privacy.[1] But no one seems to know what makes an expectation of privacy constitutionally "reasonable." The Supreme Court has repeatedly refused to offer a single test.[2] The Court has noted that "concepts of real or personal property law" might be relevant, as well as "understandings that are recognized and permitted by society."[3] But the Court has elsewhere rejected property as a guide,[4] and no one knows when society might opt to "recognize" or "permit" something. Who is "society," and how do Supreme Court Justices know what it thinks? Although four decades have passed since Justice Harlan introduced the test in his concurrence in *Katz v. United States*,[5] the meaning of

1. *See* Smith v. Maryland, 442 U.S. 735, 740 (1979) (discussing Katz v. United States, 389 U.S. 347, 361 (1967) (Harlan, J., concurring)).

2. *See, e.g.*, O'Connor v. Ortega, 480 U.S. 709, 715 (1987) (O'Connor, J., plurality opinion) ("We have no talisman that determines in all cases those privacy expectations that society is prepared to accept as reasonable."); Oliver v. United States, 466 U.S. 170, 177 (1984) ("No single factor determines whether an individual legitimately may claim under the Fourth Amendment that a place should be free of government intrusion not authorized by warrant."); *see also* 1 WAYNE R. LAFAVE, SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT § 2.1(a), at 380 (3d ed. 1996) ("The Supreme Court . . . has never managed to set out a comprehensive definition of the word 'searches' as it is used in the Fourth Amendment.").

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

4. *See, e.g.*, Warden v. Hayden, 387 U.S. 294 (1967).

5. 389 U.S. at 360 (Harlan, J., concurring).

the phrase "reasonable expectation of privacy" remains remarkably opaque.

Among scholars, this state of affairs is widely considered an embarrassment. The Court's handiwork has been condemned as "distressingly unmanageable,"[6] "unstable,"[7] and "a series of inconsistent and bizarre results that [the Court] has left entirely undefended."[8] Treatises and casebooks struggle to explain the test. Most simply announce the outcomes in the Supreme Court's cases,[9] and some suggest that the only way to identify when an expectation of privacy is reasonable is when five Justices say so.[10] The consensus among scholars is that the Supreme Court's "reasonable expectation of privacy" cases are a failure.[11]

The chaos prompts an obvious question: why can't the Supreme Court settle on a single test for what makes an expectation of privacy "reasonable"? Many areas of law require courts to apply vague standards, such as whether a company was "negligent"[12] or a defendant's awareness of risk deviated from the standard of a reasonable person.[13] But the confusion over the reasonable expectation of privacy test is much deeper. Supreme Court opinions cannot even agree on *what kind of test it is*. Is it descriptive? Is it normative? Just what does it measure? The cases are all over the map, and the Justices have declined to resolve the confusion.[14]

This Article explains why the Supreme Court has not and cannot adopt a

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6. Richard G. Wilkins, *Defining the "Reasonable Expectation of Privacy": An Emerging Tripartite Analysis*, 40 VAND. L. REV. 1077, 1107 (1987).

7. 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 (2002).

8. Silas J. Wasserstrom & Louis Michael Seidman, *The Fourth Amendment as Constitutional Theory*, 77 GEO. L.J. 19, 29 (1988).

9. *See, e.g.*, CHARLES H. WHITEBREAD & CHISTOPHER SLOBOGIN, CRIMINAL PROCEDURE: AN ANALYSIS OF CASES AND CONCEPTS (3d ed. 1993).

10. *See, e.g.*, ROBERT M. BLOOM, SEARCHES, SEIZURES, AND WARRANTS 46 (2003) ("How do we know what society is prepared to accept as reasonable? Because there is no straightforward answer to this question, 'reasonable' has largely come to mean what a majority of the Supreme Court Justices says is reasonable . . . ."); PHILIP E. JOHNSON, CASES AND MATERIALS ON CRIMINAL PROCEDURE 19 (3d ed. 2000) ("When the court refers to society's judgment, it is looking in a mirror."). Wayne LaFave's influential treatise suggests that the best explanation for current doctrine is a tautology—"the fourth amendment protects those interests that may justifiably claim fourth amendment protection"—with the important caveat that most Supreme Court Justices do not understand what justifiably claims Fourth Amendment protection. 1 LAFAVE, *supra* note 2, § 2.1(d), at 393 (quoting Anthony G. Amsterdam, *Perspectives on the Fourth Amendment*, 58 Minn. L. Rev. 349, 385 (1974)).

11. *See, e.g.*, Donald R.C. Pongrace, *Stereotypification of the Fourth Amendment's Public/Private Distinction: An Opportunity for Clarity*, 34 AM. U. L. REV. 1191, 1208 (1985) ("[M]ost commentators have recognized that regardless of the political palatability of recent decisions, fourth amendment doctrine is in a state of theoretical chaos that belies its supposed objective legitimation of governmental intrusions into our 'private affairs.'").

12. *See, e.g.*, United States v. Carroll Towing Co., 159 F.2d 169 (2d Cir. 1947).

13. *See, e.g.*, MODEL PENAL CODE § 2.02(c) (1985).

14. *See infra* Part I.

single test for what makes an expectation of privacy "reasonable." Because finding an expectation of privacy "reasonable" usually subjects the government's conduct to the warrant requirement, the doctrine needs to distinguish less troublesome police practices permitted without a warrant from more troublesome practices allowed only with a warrant or under special circumstances such as exigent circumstances or consent. The Supreme Court has not and cannot adopt a single test for when an expectation is "reasonable" because no one test effectively and consistently distinguishes the more troublesome police practices that require Fourth Amendment scrutiny from the less troublesome practices that do not.

There are two basic ways that courts could try to develop such a test, and neither approach works in practice. First, courts could identify a measurement that serves as a reliable proxy for whether a police practice requires regulation. Such proxies fail because the facts of police investigations prove too diverse; no one measurement accurately draws the line in all cases. Alternatively, courts could examine specific practices directly and decide whether they are troublesome enough to require Fourth Amendment regulation. This approach fails because it cannot be administered consistently by decentralized lower courts. Because each Fourth Amendment case involves a single discrete set of facts, courts must imagine each case as within a category of cases before determining whether that category of police practices is troublesome enough to require a warrant. This choice of category is entirely arbitrary, however, meaning that no two lower courts would be likely to agree on any given Fourth Amendment rule.

The failure of any one test to consistently distinguish police practices needing Fourth Amendment regulation from those that do not has led to the mixed system that exists today. Although the courts speak of a single "reasonable expectation of privacy" test, the one label masks several distinct but coexisting approaches. Four approaches predominate, together reflecting four different models of Fourth Amendment protection. The first three rely on proxies. The *probabilistic model* considers the likelihood that the subject's information would become known to others or the police. The lower the likelihood, the more likely it is that a reasonable expectation of privacy exists. The *private facts model* asks whether the government's conduct reveals particularly private and personal information deserving of protection. This approach focuses on the information the government collects rather than how it is collected. The *positive law model* considers whether the government conduct interferes with property rights or other legal standards outside the Fourth Amendment. When courts apply the positive law model, an expectation of privacy becomes reasonable when it is backed by positive law such as trespass. The fourth and final model, the *policy model*, reflects the direct approach. Courts applying the policy model focus directly on whether the police practice should be regulated by the Fourth Amendment.

Scholars and students of Fourth Amendment law find the current approach

frustrating because the courts routinely mix and match the four models. Most Supreme Court opinions feature multiple models to varying degrees, and they often switch from model to model without recognizing the change. It's easy to see why the current approach is so widely condemned: at the Supreme Court level, the Justices pick from different arguments and can seem to justify almost any result by picking the model that best suits it. And yet there is no recognized meta-theory to the models, no single rationale that explains when some models should be used and others should not be. The result is a body of law that seems chaotic and confused and in need of major reworking.

But appearances can be deceiving. What at first looks like conceptual confusion turns out to be a much-needed range of approaches. Specifically, the use of multiple models has a critical advantage over the use of a single model: it facilitates a decentralized Fourth Amendment in which different models apply in different settings depending on which model best identifies practices in need of constitutional regulation in that setting. Lower courts can then incorporate the Supreme Court's choice of model through analogy, resulting in the predominance of particular models in particular types of cases. Indeed, it turns out that the Supreme Court's cases reflect this dynamic already, at least to a modest degree. The Court's emphasis on particular models seems to correlate reasonably well with the contexts in which those models accurately help identify police practices in need of constitutional regulation.

Greater awareness of the four models could facilitate this goal considerably. The appearance of confusion in the Supreme Court's cases partly reflects the incorrect assumption that there must be a single test for when an expectation of privacy is reasonable. Greater awareness of the need for multiple approaches can help judges select models in each case to better accomplish the goals of the reasonable expectation of privacy test. At the Supreme Court level, Justices should pick models by considering which models best identify practices in need of regulation in that setting. Lower court judges should in turn apply Supreme Court precedents with the Court's choice of model explicitly in mind.

The Article will proceed in two Parts. Part I introduces the four models, and it explains how they work and the Supreme Court cases in which each model appears. Part II explains why the Court has embraced all four models instead of one, and how a greater recognition of the models can help courts better use them to accurately and consistently identify which police practices should count as a Fourth Amendment "search."

I. THE FOUR MODELS

The reasonable expectation of privacy test distinguishes investigative steps that the Fourth Amendment regulates from investigative steps that it does not regulate. If government conduct violates a reasonable expectation of privacy, then that conduct is a "search" and is legal only if justified by a search warrant

or a specific exception to the warrant requirement such as consent or exigent circumstances.[15] On the other hand, if government action does not implicate a reasonable expectation of privacy, then the Fourth Amendment does not regulate it and investigators can take that step at any time without constitutional limitation.[16] As a result, the reasonable expectation of privacy test defines the line between unregulated investigative steps that can be used at any time from special investigative steps that must be used only sparingly and in specific circumstances.

But what makes an expectation of privacy constitutionally "reasonable"? This Part argues that the Supreme Court's decisions include four equally viable answers to the question. There are four different models of Fourth Amendment protection—four relatively distinct categories of argument used to justify whether a reasonable expectation of privacy exists.[17] Two are normative and two are descriptive. Two are macro-scale and two are micro-scale.[18] Most opinions mix and match the four approaches, relying on multiple models in each opinion. As a result, observers often don't see the distinct types of claims. This Part clarifies the four existing models, and demonstrates that the Supreme Court sometimes embraces and sometimes rejects each of the four models as a guide to Fourth Amendment protection.

A. *The Probabilistic Model*

The first model of the Fourth Amendment is what I term *the probabilistic model*. According to this approach, a reasonable expectation of privacy depends on the chance that a sensible person would predict that he would maintain his privacy. The inquiry is descriptive rather than normative: it tries to assess the likelihood that a person will be observed or a place investigated based on prevailing social practices.[19] Under the probabilistic approach, a person has a reasonable expectation of privacy when the odds are very high that others will

15. *See* Illinois v. Rodriguez, 497 U.S. 177, 185 (1990).

16. This analysis assumes that the government conduct is not a seizure. Seizures are regulated by the Fourth Amendment even if they do not violate a reasonable expectation of privacy. *See* Soldal v. Cook County, 506 U.S. 56 (1992).

17. *Cf.* PHILIP BOBBITT, CONSTITUTIONAL FATE: THEORY OF THE CONSTITUTION (1982). For reasons that will become clear later in the Article, I will exclude stare decisis as an independent rationale for or against Fourth Amendment protection. Precedent is often used as a crutch in Fourth Amendment law; the Supreme Court will often say that the reasonable expectation of privacy test just so happens to match pre-*Katz* interpretations of the Fourth Amendment. See, for example, *United States v. White*, 401 U.S. 745, 750 (1971), reaffirmed by *On Lee v. United States*, 343 U.S. 747 (1952), which had held that the police did not need a warrant to go undercover and wear a "wire" that transmitted the defendant's conversations to a police observation post, and *Oliver v. United States*, 466 U.S. 170 (1984), reaffirmed by *Hester v. United States*, 265 U.S. 57 (1924), retaining the "open fields" doctrine.

18. *See infra* Part I.E.

19. In part, this is the "understandings that are recognized and permitted by society," discussed in *Rakas v. Illinois*, 439 U.S. 128, 143 n.12 (1978).

not successfully pry into his affairs. As those odds drop, the individual's expectation of privacy becomes less and less reasonable.[20] As a result, the Fourth Amendment protects citizens against unexpected invasions of privacy. When government conduct collects evidence in a way that interferes with customs and social expectations, revealing what a reasonable person might expect would remain hidden, it violates a reasonable expectation of privacy

Bond v. United States offers an example of the probabilistic approach.[21] A border patrol agent boarded a bus at the Texas-Mexico border and conducted a brief search for narcotics by walking the length of the bus and squeezing soft luggage placed in the overhead compartment. A squeeze of the defendant's canvas bag revealed what appeared to be a "brick-like" object stored inside, and the agent then opened the bag and found drugs.[22] In an opinion by Chief Justice Rehnquist, the Court held that the officer's "probing tactile examination" of the defendant's luggage violated his reasonable expectation of privacy.[23] The key was that the agent's probing had exceeded the usual handling common among bus passengers:

> When a bus passenger places a bag in an overhead bin, he expects that other passengers or bus employees may move it for one reason or another. Thus, a bus passenger clearly expects that his bag may be handled. He does not expect that other passengers or bus employees will, as a matter of course, feel the bag in an exploratory manner.[24]

The officer's conduct was a search because it was contrary to the reasonable expectations of bus passengers.

Minnesota v. Olson is another useful example.[25] Olson helped rob a gas station, and after the robbery he returned to a friend's duplex apartment where he was staying as an overnight guest. The police searched the apartment without a warrant and found Olson hiding in a closet. In an opinion by Justice White, the Court held that Olson had a reasonable expectation of privacy in the apartment. Such a rule "merely recognizes the everyday expectations of privacy that we all share,"[26] Justice White explained. "Staying overnight in another's home is a longstanding social custom,"[27] and the customary practice is for

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20. This appears to be the version of the reasonable expectation of privacy test that is commonly used in the privacy torts. *See, e.g.*, Lior Jacob Strahilevitz, *A Social Networks Theory of Privacy*, 72 U. CHI. L. REV. 919 (2005). This test is also used in the professional responsibility context to determine when the attorney-client privilege is retained. *See, e.g.*, ABA Comm. on Ethics and Prof'l Responsibility, Formal Op. 99-413 (1999) (concluding that e-mail supports a reasonable expectation of privacy because e-mail is likely to remain private).

21. 529 U.S. 334 (2000).

22. *Id.* at 336.

23. *Id.* at 337.

24. *Id.* at 338-39.

25. 495 U.S. 91 (1990).

26. *Id.* at 98.

27. *Id.*

hosts to respect the privacy interests of their guests: "The host may admit or exclude from the house as he prefers, but it is unlikely that he will admit someone who wants to see or meet with the guest over the objection of the guest."[28] Olson had a reasonable expectation of privacy in the apartment because social customs and norms made it reasonable for him to expect others would not be admitted there.

The majority and dissenting opinions in *California v. Ciraolo* provide another illustration.[29] Ciraolo was growing marijuana in his backyard, and constructed a 10-foot fence around the property to block others from seeing it. The police borrowed an airplane, flew over the property at 1,000 feet, and took photographs of the marijuana plants growing in the backyard. The majority opinion by Chief Justice Burger suggested that the surveillance did not violate Ciraolo's reasonable expectation of privacy because aerial observation is common: "In an age where private and commercial flight in the public airways is routine, it is unreasonable for respondent to expect that his marijuana plants were constitutionally protected from being observed with the naked eye from an altitude of 1,000 feet."[30] In dissent, however, Justice Powell disagreed on the likelihood of observation: he argued that the chances were so low that Ciraolo's expectation was reasonable.[31] Although the two opinions disagreed on the outcome, they agreed on the proper inquiry: both opinions considered the likelihood that the suspect's property would be subject to observation by others.

Bond, *Ciraolo*, and *Olson* are just three among many Supreme Court cases relying on the probabilistic model.[32] They teach that a reasonable expectation of privacy is a descriptive expectation based on norms and prevailing social practices that others will not observe what the individual seeks to protect as private. Whether an expectation of privacy is reasonable depends on the expectations of a reasonable person. Much like Learned Hand's famous negligence formula in *Carroll Towing* measured the probability that a harmful event might occur,[33] so a reasonable person might measure the probability that

28. *Id*. at 99.

29. 476 U.S. 207 (1986).

30. *Id.* at 215. There are other explanations in the *Ciraolo* majority opinion; this is only one among several.

31. *Id.* at 223 (Powell, J., dissenting) ("[T]he actual risk to privacy from commercial or pleasure aircraft is virtually nonexistent. Travelers on commercial flights, as well as private planes used for business or personal reasons, normally obtain at most a fleeting, anonymous, and nondiscriminating glimpse of the landscape and buildings over which they pass.").

32. For other examples, see O'Connor v. Ortega, 480 U.S. 709 (1987) (O'Connor, J., plurality opinion) (addressing government workplace privacy); California v. Carney, 471 U.S. 386 (1985) (concluding that a person has a lesser expectation of privacy in a car because cars are heavily regulated and therefore drivers and passengers do not expect as much privacy in them as they do in homes); and United States v. Dionisio, 410 U.S. 1 (1973) (addressing grand jury subpoena).

33. United States v. Carroll Towing Co., 159 F.2d 169, 173 (2d Cir. 1947).

particular information will be revealed.[34]

So far, so good. But there's a wrinkle: for every case in which the Court endorses the probabilistic model, you can find several others flatly rejecting it. In many cases, the Supreme Court has dismissed the probabilistic model as simply incorrect as a matter of basic Fourth Amendment law. Consider the Supreme Court's recent decision in *Illinois v. Caballes*.[35] Caballes was stopped for speeding, and the officer brought a drug-sniffing dog to the scene. When the dog alerted the officer to the presence of drugs in the trunk, the officer searched the trunk and found marijuana. The Supreme Court held that the use of the dog to alert for the presence of drugs was not a search. According to Justice Stevens' majority opinion, the chance that the police would find out about the drugs in the trunk was completely irrelevant to the Fourth Amendment inquiry: "[T]he expectation 'that certain facts will not come to the attention of the authorities' is not the same as an interest in 'privacy that society is prepared to consider reasonable.'"[36] As the Court emphasized twenty years earlier in *United States v. Jacobsen*, "The concept of an interest in privacy that society is prepared to recognize as reasonable is, by its very nature, critically different from the mere expectation, however well justified, that certain facts will not come to the attention of the authorities."[37]

The Supreme Court has also rejected the probabilistic model in its many cases on misplaced confidences. In these cases, the defendants gave private information to a friend or business associate on the assumption that such information would remain a secret. The friend then gave the information to the police, either because he was a confidential informant,[38] he was wearing a wire on the government's behalf,[39] or investigators served him with a subpoena.[40] In all of these cases, the Court held that providing information to the third party eliminated any reasonable expectation of privacy no matter how unlikely it was

34. From this perspective, the reasonable expectation of privacy test is a bit circular: whether a reasonable person would expect privacy arguably depends at least in part on the Supreme Court's cases construing the Fourth Amendment. *See, e.g.*, JEFFREY ROSEN, THE UNWANTED GAZE: THE DESTRUCTION OF PRIVACY IN AMERICA 60 (2000) ("Harlan's test was applauded as a victory for privacy, but it soon became clear that it was entirely circular."); Michael Abramowicz, *Constitutional Circularity*, 49 UCLA L. REV. 1, 60-61 (2001) ("Fourth Amendment doctrine, moreover, is circular, for someone can have a reasonable expectation of privacy in an area if and only if the Court has held that a search in that area would be unreasonable."). Of course, even under this approach, the circularity is modest. Only a lawyer would think that a person's chances of having privacy in a particular place hinges in large part on whether the police can enter it legally without a warrant, consent, or exigent circumstances. Fortunately, police searches are rarer than that whether or not a warrant is required.

35. 543 U.S. 405 (2005).

36. *Id.* at 408-09 (quoting United States v. Jacobsen, 466 U.S. 109, 122 (1984)).

37. *Jacobsen*, 466 U.S. at 122.

38. Hoffa v. United States, 385 U.S. 293 (1966).

39. United States v. White, 401 U.S. 745 (1971).

40. United States v. Miller, 425 U.S. 435 (1976).

that the friend would betray the suspect's confidence. As the Court summarized in *United States v. Miller*:

> [T]he Fourth Amendment does not prohibit the obtaining of information revealed to a third party and conveyed by him to Government authorities, even if the information is revealed on the assumption that it will be used only for a limited purpose and the confidence placed in the third party will not be betrayed.[41]

The defendant assumes the risk, no matter how small, that the information will end up in the hands of the police.[42]

Finally, consider *United States v. Ross*, which involved the search of a paper bag found in the suspect's car.[43] The Court's opinion emphasized that the ease of opening the bag was completely irrelevant to whether it supported a reasonable expectation of privacy. According to the Court, "the central purpose of the Fourth Amendment" foreclosed a distinction between containers that were "worthy" and "unworthy" of protection:

> For just as the most frail cottage in the kingdom is absolutely entitled to the same guarantees of privacy as the most majestic mansion, so also may a traveler who carries a toothbrush and a few articles of clothing in a paper bag or knotted scarf claim an equal right to conceal his possessions from official inspection as the sophisticated executive with the locked attaché case.[44]

Whether a reasonable person would expect privacy in his bag is irrelevant, much like every home receives protection regardless of whether it is an isolated mountain retreat or a frequently burglarized apartment in an urban neighborhood.

In sum, the probabilistic model provides only an occasional guide to whether an expectation of privacy is reasonable. Sometimes the Court relies on it, but often the Court flatly rejects it and looks elsewhere.

B. *The Private Facts Model*

The second model of Fourth Amendment protection is what I call *the private facts model.* The private facts model focuses on the information the government collects, and considers whether that information is private and worthy of constitutional protection. If the government obtains information that is particularly private, then the acquisition of that information is a search; if the

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41. *Id.* at 443.

42. *See, e.g.*, Smith v. Maryland, 442 U.S. 735, 745 (1979) ("We are not inclined to make a crazy quilt of the Fourth Amendment, especially in circumstances where (as here) the pattern of protection would be dictated by billing practices of a private corporation."); *see also* Anderson v. Pollard, 2006 U.S. Dist. LEXIS 81960, at *11-12 (E.D. Wis. Nov. 7, 2006) (arguing unsuccessfully that a prison cell retained a reasonable expectation of privacy because it was not searched very often).

43. 456 U.S. 798 (1982).

44. *Id.* at 822 (footnote omitted).

information collected is not private or does not otherwise merit protection, then no search has occurred. The key question becomes what information the government collected rather than how it was obtained or whether the government's conduct was unexpected.

United States v. Jacobsen offers a helpful example.[45] In *Jacobsen*, a cardboard box sent via Federal Express broke open during delivery. A white powder seeped out, and an FBI agent performed a chemical field test of the powder to determine if the powder was cocaine. The field test returned a positive result, leading to criminal charges against the package recipient. In an opinion by Justice Stevens, the Supreme Court held that a field test for narcotics could not violate a reasonable expectation of privacy. A field test "could disclose only one fact,"[46] whether the powder was cocaine. But that fact could not be a "private" fact, the Court concluded.[47] If the test returned a negative result, then "such a result reveals nothing of special interest."[48] And if the test returned a positive result, then it merely revealed that a crime had been committed because the possession of cocaine is a crime.[49] Because the field test could only reveal evidence of a crime, "and no other arguably 'private' fact," it could not violate any expectation of privacy that was constitutionally "legitimate."[50]

Dow Chemical Co. v. United States reflects a similar approach.[51] The Environmental Protection Agency (EPA) hired a commercial photographer to take aerial photographs of a chemical plant to identify violations of environmental protection laws. The owner of the chemical plant, Dow Chemical, brought a civil suit claiming that the photography violated the Fourth Amendment. In an opinion by Chief Justice Burger, the Court rejected the Fourth Amendment challenge based in part on the limited information the photography revealed: "[T]he photographs here are not so revealing of intimate details as to raise constitutional concerns. 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."[52] The photographs revealed some information but did not reveal anything important or intimate. Therefore it was not a search.

Of course, like the other models, the private facts model works both ways: it can be used either to deny Fourth Amendment protection or to justify it. Consider *United States v. Karo*, in which Drug Enforcement Agency (DEA) agents placed a tracking device inside a can of chemicals used to extract

45. 466 U.S. 109 (1984).
46. *Id.* at 122.
47. *Id.* at 123.
48. *Id.*
49. *Id.*
50. *Id.*
51. 476 U.S. 227 (1986).
52. *Id.* at 238.

cocaine from materials imported into the United States.[53] The tracking device revealed the location of the can, and this showed that the can had been brought inside a private home. In an opinion by Justice White, the Court held that using the device to obtain information about the inside of a home violates a reasonable expectation of privacy because details about the inside of a home are private facts:

> The monitoring of an electronic device such as a beeper is, of course, less intrusive than a full-scale search, but it does reveal a critical fact about the interior of the premises that the Government is extremely interested in knowing and that it could not have otherwise obtained without a warrant.[54]

The government conduct was a search because it revealed a critical fact.

Jacobsen, *Dow Chemical Co.*, and *Karo* are just a few of the many cases invoking the private facts model. Their common theme is that a Fourth Amendment search occurs and a reasonable expectation of privacy is therefore violated when the government obtains particularly private and personal information deserving of privacy protection. The approach seems to follow from our sense that the disclosure of some particularly personal information is an invasion of privacy while the disclosure of less personal information may seem like no invasion of privacy at all.[55] If the Fourth Amendment reflects this widely shared notion of privacy, perhaps a "reasonable expectation of privacy" requires a normative assessment of the value of the information revealed to the government. This interpretation becomes more plausible thanks to the occasional alternative formulation of the test as looking for a "legitimate" expectation of privacy rather than a "reasonable" expectation of privacy.[56] Whether an expectation of privacy is "legitimate" clearly depends on a normative judgment of legitimacy, an intuition reflected in the private facts model.

Once again, however, these cases tell only half of the story. The Supreme Court's search cases often ignore the private facts model, finding a search when no private information is obtained and concluding that no search occurs when even very invasive information is collected.[57] For example, in *Arizona v. Hicks*,

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53. 468 U.S. 705 (1984).

54. *Id*. at 715.

55. *See* Daniel J. Solove, *A Taxonomy of Privacy*, 154 U. PA. L. REV. 477 (2006).

56. *See, e.g.*, Rakas v. Illinois, 439 U.S. 128, 143 n.12 (1978).

57. Christopher Slobogin and Joseph Schumacher emphasized this point in a 1993 article that tested the social expectations of 217 individuals (most of them students). Christopher Slobogin & Joseph E. Schumacher, *Reasonable Expectations of Privacy and Autonomy in Fourth Amendment Cases: An Empirical Look at "Understandings Recognized and Permitted by Society,"* 42 DUKE L.J. 727 (1993). The subjects of the study were asked to rank the "intrusiveness" of various law enforcement practices featured in Fourth Amendment decisions. Slobogin and Schumacher found little correlation between the scope of Fourth Amendment protection and the intrusiveness of different steps: "[T]he Supreme Court's conclusions about the scope of the Fourth Amendment are often not in tune with commonly held attitudes about police investigative techniques." *Id.* at 774.

the police entered an apartment looking for a gunman who had fired shots from the apartment moments earlier.[58] An officer came across expensive audio equipment in what was otherwise a ramshackle apartment, and picked up a turntable to check its serial number for a match with stolen equipment. In an opinion by Justice Scalia, the Court held that moving the stereo equipment to reveal the serial number violated the defendant's reasonable expectation of privacy. The fact that moving the turntable revealed only a serial number was irrelevant:

> It matters not that the search uncovered nothing of any great personal value to respondent—serial numbers rather than (what might conceivably have been hidden behind or under the equipment) letters or photographs. A search is a search, even if it happens to disclose nothing but the bottom of a turntable.[59]

The Court has also rejected the private facts model in cases involving the opening of packages. Here the rule is simple: when a government agent opens a suspect's sealed package or other container, opening the container is a "search" regardless of what is inside the box.[60] Note the tension with *Caballes*, the dog sniff case: the use of a drug-sniffing dog to find drugs without opening a package is no search because the possession of drugs is not protected as a private fact, but opening a package and finding drugs *is* a search even if the opening reveals nothing private except the drugs themselves. In the former case, the private facts model applies; in the latter case, it does not.[61]

Finally, the Court has rejected the private facts model in the misplaced confidences cases.[62] Recall that these are the cases in which a suspect gives private information to a friend or business associate on the assumption that such information will remain a secret, and the friend or business associate then gives the information to the police. The Court's opinions teach that the act of disclosure to a third party eliminates protection: having surrendered control over the information and given it to a third party, the suspect no longer retains any privacy rights in it. In these cases, however, the nature of the information disclosed is irrelevant: the mere mechanism of disclosure eliminates protection, even if the information disclosed is deeply private. A defendant who discloses information to a third party simply has "assumed the risk" that the third party will turn around and disclose the information to the police.

Much like the probabilistic model, the private facts model provides only an occasional guide to when an expectation of privacy is reasonable. In some cases, whether police conduct disclosed private facts through the use of a practice is essential to whether it constitutes a "search," while in others it is irrelevant.

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58. 480 U.S. 321 (1987).

59. *Id.* at 325.

60. *See* United States v. Jacobsen, 466 U.S. 109, 120 n.17 (1984).

61. *See id.* ("A container which can support a reasonable expectation of privacy may not be searched, even on probable cause, without a warrant.").

62. *See supra* notes 38-44.

C. *The Positive Law Model*

The *positive law model* offers a third model of Fourth Amendment protection. When courts apply the positive law model, they look at whether there is some law that prohibits or restricts the government's action (other than the Fourth Amendment itself). If the government broke the law in order to obtain the information it did, the government conduct violated a reasonable expectation of privacy. This approach often focuses on whether the information collected was legally available to the public. If a member of the public could have accessed the information legally, then it does not violate a reasonable expectation of privacy for the government to do the same. The positive law approach is descriptive, not normative: it asks whether the government's access to the suspect's information was achieved legally based on preexisting legal doctrine.

The positive law model has deep roots in Fourth Amendment history. The Fourth Amendment began as a mechanism for protecting property rights,[63] and the property-based contours of the Fourth Amendment remain strong today.[64] As a result, "protection for property under the Fourth Amendment"[65] remains a major theme of the post-*Katz* era: If a person owns property or has a close relationship to the owner, access to that property usually violates his reasonable expectation of privacy. On the other hand, lack of a property right or a relationship to the property owner often renders an expectation of privacy unreasonable. Descriptively speaking, interference with property rights provides a surprisingly helpful guide to the scope of Fourth Amendment protection.[66]

Rakas v. Illinois provides an example of the positive law model.[67] The defendants had helped rob a clothing store, and were passengers in the getaway car when it was stopped by a pursuing police officer. The officer searched the car and found a gun under the front passenger seat and a box of shells in the locked glove compartment. In an opinion by Justice Rehnquist, the Court held that searching the car did not violate the passengers' Fourth Amendment rights. According to the Court, "One of the main rights attaching to property is the right to exclude others, and one who owns or lawfully possesses or controls property will in all likelihood have a legitimate expectation of privacy by virtue of this right to exclude."[68] The passengers lacked a property right, however, and also lacked a mere possessory right in the car or the items seized. Because they "asserted neither a property nor a possessory interest in the automobile

63. *See* Entick v. Carrington, 19 Howell's State Trials 1029, 1030 (C.P. 1765).

64. *See* Orin S. Kerr, *The Fourth Amendment and New Technologies: Constitutional Myths and the Case for Caution*, 102 MICH. L. REV. 801, 809-15 (2004).

65. Soldal v. Cook County, 506 U.S. 56, 64 (1992).

66. *See* Kerr, *supra* note 64.

67. 439 U.S. 128 (1978).

68. *Id.* at 143 n.12 (internal citations omitted).

searched nor an interest in the property seized," they could not establish a reasonable expectation of privacy.[69]

The positive law model extends beyond property, however. Consider Justice White's plurality opinion in *Florida v. Riley*.[70] The facts of *Riley* are similar to those of *Ciraolo*: investigators flew a helicopter over the defendant's property at an altitude of 400 feet, and from that vantage point observed marijuana growing in his greenhouse. The government's brief invoked the positive law model, pointing out that Federal Aviation Administration (FAA) regulations banning fixed-wing aircraft from traveling below an altitude of 500 feet do not apply to helicopters. Because FAA regulations permitted helicopters to fly above Riley's property at that altitude, doing so did not violate his reasonable expectation of privacy. Justice White's plurality opinion agreed:

> We would have a different case if flying at that altitude had been contrary to law or regulation. But helicopters are not bound by the lower limits of the navigable airspace allowed to other aircraft. Any member of the public could legally have been flying over Riley's property in a helicopter at the altitude of 400 feet and could have observed Riley's greenhouse. The police officer did no more. . . . [I]t is of obvious importance that the helicopter in this case was *not* violating the law . . . .[71]

Like the other models, the positive law model cuts both ways; it can either deny protection or justify it. An example of positive law justifying protection is Justice Powell's dissent for four Justices in *Dow Chemical Co*.[72] The EPA hired an aerial photographer to snap pictures of a Dow industrial plant to determine whether Dow had complied with environmental regulations. Dow's brief argued that this surveillance divulged Dow's trade secrets, and that this violation of trade secret law infringed Dow's reasonable expectation of privacy. In his dissent, Justice Powell agreed, joined by Justices Brennan, Marshall, and Blackmun. Trade secrets laws "constitute society's express determination that commercial entities have a legitimate interest in the privacy of certain kinds of property," Justice Powell wrote. Because Dow's efforts to shield its plant from view allegedly triggered trade secret protections, it also triggered Dow's "reasonable expectation of privacy in its commercial facility in the sense required by the Fourth Amendment."[73]

Rakas, *Riley*, and the dissent in *Dow Chemical Co.* are only three of the many Supreme Court opinions invoking the positive law model.[74] Their

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69. *Id.* at 129.

70. 488 U.S. 445 (1989).

71. *Id.* at 451 (White, J., plurality opinion, joined by Rehnquist, C.J., Scalia, J., and Kennedy, J.).

72. Dow Chemical Co. v. United States, 476 U.S. 227 (1986).

73. *Id.* at 249 (Powell, J., concurring in part, dissenting in part).

74. Perhaps the most remarkable example of this is the discussion of Bahamian bank secrecy law in *United States v. Payner*, 447 U.S. 727 (1980). Payner argued that Bahamian bank secrecy laws created a reasonable expectation of privacy in his bank records in the Bahamas. The Court disagreed, finding that "[t]he statute is hardly a blanket guarantee of

common theme is that a reasonable expectation of privacy derives from values expressed and affirmed by positive law, such that government action that violates the standards of existing law triggers Fourth Amendment protection. Once again, however, these cases tell only half the story. For every opinion applying the positive law model, there is another opinion rejecting it. (You knew that was coming, didn't you?)

Consider *Oliver v. United States*,[75] which held that the 1920s-era "open fields" doctrine survived the establishment of the *Katz* "reasonable expectation of privacy" framework.[76] Under the open fields doctrine, the police can roam around and investigate crime on open property belonging to the suspect so long as they don't get too close to the suspect's house.[77] The *Oliver* court justified this curious doctrine by rejecting the positive law model in an opinion by Justice Powell. According to Justice Powell, the fact that the officers violated trespass laws did not mean that it triggered a reasonable expectation of privacy: "[T]respass law extends to instances where the exercise of the right to exclude vindicates no legitimate privacy interest. Thus, in the case of open fields, the general rights of property protected by the common law of trespass have little or no relevance to the applicability of the Fourth Amendment."[78]

California v. Greenwood is also helpful.[79] Greenwood left her trash in a bag near the border of her property for pickup by local trash collectors. A police officer instructed the trash collectors to pick up the trash and turn it over to the authorities, and a subsequent search of the trash revealed amounts of cocaine and hashish. The defendant's brief tried to invoke the positive law model: it noted that the California Supreme Court had held that such conduct violated the state constitution, and reasoned that state constitutional law

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privacy. Its application is limited; it is hedged with exceptions; and we have been directed to no authority construing its terms." *Id.* at 732 n.4. Another example is *Alderman v. United States,* 394 U.S. 165 (1969), in which the Court held that wiretapping a home telephone line implicates the homeowner's reasonable expectation of privacy even if he was not a party to the call intercepted. According to the Court, the homeowner has Fourth Amendment rights even if his own privacy rights are not invaded: the fact that the surveillance occurs inside the owner's home is enough to confer Fourth Amendment protection. *Id.* at 179-80 ("The rights of the owner of the premises are as clearly invaded when the police enter and install a listening device in his house as they are when the entry is made to undertake a warrantless search for tangible property . . . .").

75. 466 U.S. 170 (1984).

76. This doctrine was first established in *Hester v. United States*, 265 U.S. 57, 59 (1924) (citing WILLIAM BLACKSTONE, 4 COMMENTARIES *223, *225-226).

77. If the police get too close to the home they will cross on to the "curtilage," which is the area near the home that is essentially home-like and thus protected by the Fourth Amendment. *See* United States v. Dunn, 480 U.S. 294 (1987).

78. *Oliver*, 466 U.S. at 183-84. It is possible to reconcile these outcomes: trade secrets are about secrets, whereas trespass law is not. So it could be consistent with a theory that some types of positive law should be recognized under the positive law model while others types should not be. Courts haven't drawn these lines, though, in part because trespass law often is about privacy.

79. 486 U.S. 35 (1988).

rendered Greenwood's expectation of privacy constitutionally reasonable. The Court disagreed. Justice White's majority opinion bristled at the notion that state law could govern Fourth Amendment protection. "We have never intimated" at such a notion, Justice White explained.[80] "We have emphasized instead that the Fourth Amendment analysis must turn on such factors as 'our *societal* understanding that certain areas deserve the most scrupulous protection from government invasion.'"[81]

Much like the probabilistic model and the private facts model, the positive law model is only an occasional guide to Fourth Amendment protection. Some opinions embrace it and others reject it.

D. *The Policy Model*

The fourth and final model of Fourth Amendment protection is the *policy model*. Under the policy model, the reasonable expectation of privacy inquiry poses a policy question: should a particular set of police practices be regulated by the warrant requirement or should those practices remain unregulated by the Fourth Amendment? If the consequences of leaving conduct unregulated are particularly troublesome to civil liberties, then that conduct violates a reasonable expectation of privacy. On the other hand, if the practical consequences of regulating such conduct unnecessarily restrict government investigations given the gain to civil liberties protection, then any expectation of privacy is constitutionally unreasonable. Whether an expectation of privacy is reasonable hinges on a normative value judgment. Judges must consider the consequences of regulating a particular type of government activity, weigh privacy and security interests, and opt for the better rule.[82]

As legal realists, we may rightly suspect that the policy model often drives outcomes in Supreme Court decisions. As we will see in the next Part, it is widely agreed that something akin to the policy model helps frame the basic goals of Fourth Amendment law and the reasonable expectation of privacy test.[83] As a result, the policy model presumably plays a guiding hand in many cases even when an opinion itself is framed in terms of the probabilistic model, private facts model, and/or positive law model. At the same time, explicit reliance on the policy model turns out to be very common in the Supreme Court's Fourth Amendment decisions. This willingness is on display in *Katz v. United States* itself.[84] The majority's rationale for why bugging a phone booth triggered the Fourth Amendment was primarily instrumental: "To read the

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80. *Id.* at 43.

81. *Id.* at 43 (quoting *Oliver*, 466 U.S. at 178 (emphasis added in *Greenwood*)).

82. *See* Amsterdam, *supra* note 10, at 403; *see also* Colb, supra note 7, at 124 (arguing that the reasonable expectation of privacy test forces "[d]ecisions . . . [to] rest on normative choices").

83. *See infra* Part II.

84. 389 U.S. 347 (1967).

Constitution more narrowly is to ignore the vital role that the public telephone has come to play in private communication."[85] In the wake of *Katz*, the Justices have regularly employed explicit normative arguments to justify outcomes in "search" cases.

Kyllo v. United States offers an illustration of the policy approach to the reasonable expectation of privacy test.[86] Acting on the suspicion that Kyllo was growing marijuana in his home, federal agents pointed a thermal imaging device towards the exterior of his home to check for high temperatures that might indicate the use of heat lamps. The imaging device measured infrared radiation emanating from the walls and roof of the home; because the amount of infrared radiation emanating from a surface depends on its temperature, the device created a temperature profile of the exterior of a home. Sitting in a parked car across the street, the agents used the device and found that one wall and the roof of Kyllo's garage were unusually hot. In his opinion for the Court, Justice Scalia reasoned that use of the device to monitor a home was a search because in "the long view"[87] the use of sense-enhancing devices presented a major threat to privacy in the home. "To withdraw protection . . . would be to permit police technology to erode the privacy guaranteed by the Fourth Amendment,"[88] Scalia reasoned. "[O]btaining by sense-enhancing technology any information regarding the interior of the home that could not otherwise have been obtained without physical 'intrusion'"[89] must be a search, as such a holding "assures preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted."[90]

Justice Marshall's dissent in *Smith v. Maryland* provides another example.[91] The police had asked the telephone company to install a pen register on Smith's home to confirm that he was guilty of harassing a woman. The pen register recorded the outgoing numbers dialed from Smith's home telephone, and confirmed that he was indeed the caller.[92] In a dissent joined by Justice Brennan, Justice Marshall urged that this monitoring violated Smith's reasonable expectation of privacy. Marshall's inquiry was explicitly normative: he asked whether permitting the monitoring was consistent with "a free and

85. *Id.* at 352.

86. 533 U.S. 27 (2001).

87. *Id.* at 40.

88. *Id.* at 34.

89. *Id.* (quoting Silverman v. United States, 365 U.S. 505 (1961)).

90. *Id.* The Court invoked a similar normative judgment in *United States v. Karo*, 468 U.S. 705 (1984), the case involving use of an electronic locating device. According to the majority, using a locating device was a "search" because the unregulated use of such devices would be too dangerous: "Indiscriminate monitoring of property that has been withdrawn from public view would present far too serious a threat to privacy interests in the home to escape entirely some sort of Fourth Amendment oversight." *Id.* at 716.

91. 442 U.S. 735 (1979).

92. *Id.* at 736 & n.1, 737.

open society" and "the basic values underlying the Fourth Amendment."[93] Permitting the use of pen registers without Fourth Amendment oversight was too dangerous, Justice Marshall argued, as it would "impede certain forms of political affiliation and journalistic endeavor that are the hallmark of a truly free society."[94]

As with the other three models, the policy model cuts both ways. It can be used to justify protection or its absence. Consider a prison search case, *Hudson v. Palmer*.[95] Hudson, a prison guard, searched the cell of Palmer, a prison inmate. Palmer sued Hudson, claiming that the search violated his Fourth Amendment rights. In an opinion by Chief Justice Burger, the Court held that the inmate had no reasonable expectation of privacy in his cell because a contrary rule would interfere with sound corrections policy. According to Burger, the expectation of privacy analysis "necessarily entails a balancing of interests," in this case a balance between "the interest of society in the security of its penal institutions and the interest of the prisoner in privacy within his cell."[96] The opinion then simply announced that the Court had decided to "strike the balance in favor of institutional security."[97] Palmer did not have a reasonable expectation of privacy in his cell because "recognition of privacy rights for prisoners in their individual cells simply cannot be reconciled with the concept of incarceration and the needs and objectives of penal institutions."[98]

Kyllo, *Hudson*, and the dissent in *Smith v. Maryland* are only three of the many cases relying on the policy model.[99] Their common theme is that the "reasonable expectation of privacy" test reflects a normative policy choice between regulating government conduct and leaving such conduct unregulated. Different opinions approach the policy question in different ways, but the basic idea is that whether an expectation of privacy is reasonable depends on the desirability of a legal rule holding it to be so.[100] Unlike the other three models,

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93. *Id.* at 750-51 (Marshall, J., dissenting).

94. *See id.* at 751.

95. 468 U.S. 517 (1984).

96. *Id*. at 527.

97. *Id.*

98. *Id.* at 526.

99. *See, e.g.*, Delaware v. Prouse, 440 U.S. 648, 662-63 (1979) (justifying the conclusion that searching a car violates a reasonable expectation of privacy on the ground that "[w]ere the individual subject to unfettered governmental intrusion every time he entered an automobile, the security guaranteed by the Fourth Amendment would be seriously circumscribed"); United States v. White, 401 U.S. 745, 778 (1971) (Harlan, J., dissenting) (arguing that the reasonable expectation of privacy framework should be decided in light of policy considerations).

100. This focus on policy interests in Fourth Amendment law arguably goes back to the first Fourth Amendment decision, *Boyd v. United States*, 116 U.S. 616 (1886). The Court's description of the Fourth Amendment's purpose in that case is notable for its potpourri of themes: according to Justice Bradley, the "essence" of the Fourth Amendment was protection against "the invasion of [a person's] indefeasible right of personal security,

the policy model is never rejected in Supreme Court opinions.[101] At the same time, many Supreme Court opinions ignore the policy model on their face,[102] and most opinions that discuss it do so only alongside other models.[103] Decisions rely heavily on the policy approach in a few cases, moderately in some cases, and not at all in other cases. Although we may suspect that policy plays an important role even when it is not invoked explicitly, the Supreme Court's opinions themselves treat the policy model much like the other three approaches. The policy approach provides one of four possible arguments that the Justices use to justify the scope of a reasonable expectation of privacy.

E. *The Relationship Among the Models*

Now that the basic principles of the four models have been developed, it may help to step back and compare them. At the broadest level, the four models provide four distinct ways of identifying when an expectation of privacy is

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personal liberty, and private property." *Id.* at 630. Following *Boyd*, the Court's focus on weighing of privacy interests was a common theme in early cases. In 1932, for example, the Court warned in *United States v. Lefkowitz*, that the Fourth Amendment must be "construed liberally to safeguard the right of privacy." 285 U.S. 452, 464 (1932). And in *Wolf v. Colorado*, Justice Frankfurter urged that at the "core" of the Fourth Amendment was "[t]he security of one's privacy against arbitrary intrusion by the police." 338 U.S. 25, 27 (1949). *See, e.g.*, United States v. Jeffers, 342 U.S. 48 (1951); *see also* McGuire v. United States, 273 U.S. 95 (1927).

101. A few cases suggest that the policy concerns should go beyond a mere balancing of interests to include pragmatic questions such as institutional competence, *see* Kyllo v. United States, 533 U.S. 27, 51 (2001) (Stevens, J. dissenting), and the administrability of rules, *see* Smith v. Maryland, 442 U.S. 735, 744-45 (1979).

102. *See, e.g.*, California v. Ciraolo, 476 U.S. 207 (1986). *Ciraolo* involved aerial surveillance of marijuana plants growing in the defendant's backyard, and the opinion relied on the probabilistic and positive law models but ignored the policy model. According to Chief Justice Burger, aerial surveillance from public airspace does not violate a reasonable expectation of privacy because any member of the public could legally conduct such surveillance (positive law), and in an age of routine air travel expecting privacy is unreasonable (probabilistic). *See id.* at 213-14. But the opinion never explores the policy consequences of its holding, never balances the privacy and law enforcement interests, and never suggests that such inquiries might be relevant. Although we can imagine such arguments, none appear in the opinion.

103. Justice Scalia's opinion for the Court in *Kyllo*, 533 U.S. at 29, is a good example. Although it relies heavily on the policy model, it also discusses and attempts to conform to both the private facts model and the probabilistic model. The government's brief relied heavily on the private facts model, and claimed that merely obtaining the temperature of the home was not sufficiently "intimate" to constitute a search. Justice Scalia disagreed, contending that the temperature of the home was "intimate" because all facts about the inside of the home are "intimate" facts. *Id.* at 37. Scalia also defined the scope of the Court's holding using the probabilistic model: the prohibition against the warrantless use of sense-enhancing devices applied only to those devices "not in general public use." *Id.* at 34. Use of the thermal imaging device was a search because "thermal imaging is not 'routine'" under the probabilistic model. *Id.* at 39 n.6. If using such devices had been routine, the Court suggested, the outcome might very well be different.

reasonable. The probabilistic model looks to prevailing social practices; the private facts model looks to the privacy invasion itself; the positive law model looks to positive law; and the policy model looks to consequences. These differences map across two important dichotomies: normative versus descriptive, and micro-scale versus macro-scale. The normative/descriptive dichotomy is easy to understand. Descriptive approaches key the legal test to existing law or social practice, whereas normative approaches rely on judicial assessments of preferred values and practices.[104] The micro-scale/macro-scale dichotomy is equally fundamental.[105] A micro-scale inquiry focuses on the exact facts of the case before the court, such as what the officer did or what information he obtained. In contrast, a macro-scale inquiry looks to characteristics of the general type of government conduct, of which the case at hand is merely one example. This requires some arbitrary classification, of course: cases can be grouped in different ways, depending on what facts seem most important.[106] But the basic idea is that each case is an example of a broader subset of cases.

Classifying the four models using these two dichotomies reveals how the four models provide the courts with four different approaches to measuring whether an investigatory step should be regulated under the Fourth Amendment. First, the private facts model is normative and micro-scale. It looks at the information obtained in the precise case before the Court, and requires a normative assessment of the "privateness" of the information. In contrast, the policy model is normative and macro-scale: it calls for a normative assessment of the privacy stakes and competing law enforcement needs in a broader category of cases, such as prison searches,[107] use of sense-enhancing devices,[108] or use of bugging devices.[109] What matters is the dynamics of a typical case in a generally defined category, not those of the specific one before the court. Next, the positive law model is descriptive and micro-scale. It asks whether the facts of that particular case involve a government violation of a preexisting legal prohibition. Finally, the probabilistic model is descriptive and macro-scale: it considers whether a person with an accurate sense of social practices generally would expect privacy in the exposed information. Put another way, the probabilistic model considers the overall ex ante likelihood of

104. *See supra* notes 19 and 82 and accompanying text.

105. *Cf.* Amsterdam, *supra* note 10, at 367 (distinguishing between "atomistic" and "regulatory" approaches to the Fourth Amendment).

106. For example, imagine a police officer breaks into a post office and rifles through the mail of a suspect he is investigating; when he finds a private letter, the officer opens the letter and reads it. A micro-scale inquiry might look at whether the officer violated any laws, or what information he obtained in that particular case. A macro-scale inquiry might see the case as one example of government access to postal letters, and seek to base a rule on the general and typical characteristics of postal mail and postal mail privacy.

107. Hudson v. Palmer, 468 U.S. 517 (1984).

108. *Kyllo*, 533 U.S. 27.

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

government access to information resulting from a wide range of possible practices, rather than the specific case before the court.[110]

The four basic categories map as follows:

	Micro-Scale	*Macro-Scale*
Descriptive	Positive Law	Probabilistic
Normative	Private Facts	Policy

The results under these different approaches will often overlap, which no doubt explains why most opinions mix and match different models. For example, positive law often tracks social norms. If conduct is illegal, we can expect few people to do it. If most people follow the law, the two descriptive models will support the same result. Similarly, the disclosure of private facts will tend to have significant civil liberties implications; if government surveillance reveals unusually private information, letting investigators access that information without legal restriction is likely to result in a substantial injury to privacy. Thus we might expect the two normative models to reach the same result in many cases as well. More broadly, in easy cases we would expect all four models to point to the same result. For example, breaking into a suspect's house would be a search under all four models, while walking down the street in a crowded public place wouldn't be a search under any of them. The fact that the different approaches overlap both explains why the different models are used simultaneously and why Fourth Amendment scholars have not seen the arguments as distinct. Most opinions jump from model to model without acknowledging the jump. This is possible because the models usually are used as general tools rather than clear and specific doctrinal tests. In many cases there is considerable wiggle room in terms of how each model applies. Nonetheless, the four models do frame four distinct sets of approaches to answering when an expectation of privacy is reasonable. In some cases they will overlap, but in other cases they will point in different directions. The hard cases tend to be those in which the different models point judges to different conclusions. In those cases, courts must choose which model applies to that particular case.

110. Consider whether a person has a reasonable expectation of privacy in her postal mail letters. Under the probabilistic model, the question is whether, taking into account all of the possible ways that mail privacy might be violated, discounted by their probability, a person could reasonably expect privacy in her postal mail. This is a macro-scale inquiry, in that it concerns the general question of the odds of an invasion of mail privacy rather than an estimate of the chances that the exact invasion that did occur was likely to occur. The chances that the exact invasion that did occur was likely to occur ex ante is irrelevant under the probabilistic model. For example, if an FBI agent breaks into a post office and opens a letter addressed to a suspect, the probabilistic model would not focus attention on the likelihood that the FBI agent would break in exactly as he did, but on the likelihood of the letter being opened by the government in a range of hypothetical scenarios.

II. THE CASE FOR MULTIPLE MODELS OF FOURTH AMENDMENT PROTECTION

The Supreme Court's use of four models of Fourth Amendment protection prompts an obvious question: why hasn't the Court selected a single model and applied it in every case? The existing approach seems unsatisfying, as it allows the Justices to justify nearly any outcome in any case by picking and choosing among the models. If a majority of the Justices doesn't like the result that seems to follow from one model, it can simply focus on a different model to generate the desired outcome.

Why has the Court failed to embrace a single model? This Part argues that the Court has failed to generate a single test because no one test accurately and consistently distinguishes police practices that are reasonable per se from those practices that are reasonable only if the government has a countervailing interest such as probable cause. The Fourth Amendment imposes reasonable restrictions on investigative practices, and the exclusionary rule forces courts to distinguish police practices that are reasonable even if not regulated by the Fourth Amendment from those practices that are reasonable only in special circumstances. The function of the "reasonable expectation of privacy" doctrine is to demarcate this line, and the exclusionary rule requires courts to implement it by announcing clear rules for each discrete police practice.

The Supreme Court cannot settle on a single model because no model draws that line accurately in every case. Three of the models try to draw the lines using proxies for whether a police practice demands regulation; no one model works in all cases because the proxies are imperfect. The probabilistic model uses the proxy of social practice and everyday experience; the private facts model uses the proxy of information obtained; the positive law model uses the proxy of law outside the Fourth Amendment. Each of these models accurately identifies police practices in need of regulation in some cases. But the key point is that no one model fits every case: the range of cases is incredibly diverse, and as a result each proxy works in some cases but fails in others. No one size fits all.

Further, the direct approach of the policy model can't provide an exclusive guide because it cannot be administered consistently in a system of lower court rulemaking. Although the Supreme Court grabs the headlines, the job of announcing rules that govern the reasonable expectation of privacy test falls mostly to the hundreds of decentralized lower courts. Because the police often must rely on lower court precedents from other jurisdictions, consistency across jurisdictions is essential. And yet the policy model cannot create such certainty as it depends entirely on arbitrary classifications of what police "practice" the court must evaluate. Fourth Amendment cases always involve a specific set of facts, and the policy model requires courts to imagine those facts as one example of a broader category of cases. But the choice of category is completely arbitrary: courts can pick along a continuum from extremely specific to very broad, and no point along the continuum is clearly better than

another. In a system of lower court rulemaking, use of the policy model alone can only result in doctrinal chaos and confusion.

Although no one model of Fourth Amendment protection can provide an exclusive guide, the coexistence of multiple models has an important advantage over a single approach. It allows the localized use of specific models to more accurately identify police practices needing regulation. Fourth Amendment decision making relies heavily on analogies, which means that legal reasoning adopted in one factual setting will tend to be adopted in similar factual settings. In a system of coexisting models, this dynamic allows the Supreme Court to pick the model most likely to accurately identify police practices in need of constitutional regulation in the setting of that particular case. Lower courts faced with new cases will reason by analogy to the Supreme Court's precedents, and through analogical reasoning will incorporate and adopt the models used in the Court's most similar decisions. The result is a system of localized models: different models will control different types of cases depending on which model best draws the line in each particular type of case.

Something like this happens already, even though judges and Justices are not fully aware of the four models. Reviewing the cases shows that the choices of models are not random; the need to justify a decision using a sensible rationale will normally push Justices to focus on the model that provides the most sensible results in related cases. In the lower courts, the usual process of reasoning by analogy will push them to adopt the same models in factually similar cases. More importantly, a better appreciation of the four models can help courts achieve the goals of the Fourth Amendment more effectively. An awareness of the four models and their function suggests a meta-theory of sorts as to which models should be used: the Supreme Court should try to explain outcomes using the model that best draws the needed line in that type of case. Lower courts should then mirror that decision in factually similar cases, resulting in different models governing different types of cases in ways that most accurately identify police practices in need of constitutional regulation.

I will develop this argument in three Parts. The first Part explains why the courts need to generate thousands of context-specific rules to identify when an expectation of privacy is reasonable. The second Part explains why no single model can provide these rules. The third Part demonstrates how the use of multiple models of Fourth Amendment protection facilitates the regime of localized models that helps identify police practices in need of constitutional regulation.

A. *The Goals of the Reasonable Expectations of Privacy Test*

Understanding why the Supreme Court has not embraced a single model of Fourth Amendment protection must begin with a functional role of the reasonable expectation of privacy test and how its rules are created. The Fourth Amendment prohibits unreasonable searches and seizures, and in the *Katz* era it

has been understood as an essential tool for requiring reasonable police practices when the police collect evidence.[111] The ultimate touchstone, the Supreme Court often reminds us, is reasonableness.[112] In an abstract sense, reasonableness sets up a familiar balancing of interests: the courts must devise a set of legal commands that limit police powers to deter abuses and yet also give the police the needed powers to investigate criminal activities.[113] However, this balancing occurs in the shadow of the exclusionary rule, which provides the primary remedy to enforce Fourth Amendment rules. Under the exclusionary rule, the remedy for Fourth Amendment violations is severe: when the police violate the Fourth Amendment in the course of an investigation, the evidence obtained as a fruit of the violation ordinarily cannot be used in court.[114] Courts impose this remedy only at the end of the case: the government will charge a defendant with an offense, and the defendant will file a motion to suppress that, if successful, leads to suppression and potentially dismissal of all of the charges.

The Fourth Amendment's suppression remedy exerts a profound influence on the shape of Fourth Amendment doctrine. In particular, it generates tremendous pressure on the courts to implement the Fourth Amendment using clear ex ante rules rather than vague ex post standards.[115] Unlike other remedies, suppression is a blunt instrument. It acts as an on-off switch; evidence either is excluded or it is not.[116] When the police err, courts must impose the high social cost of suppressing evidence and letting a potentially

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111. *See Katz*, 389 U.S. at 373-74 (Black, J., dissenting) (noting that the Supreme Court was interpreting the Fourth Amendment less as a restriction on unreasonable searches and seizures and more as a general mechanism for limiting police investigations). I should add a caveat here: the Fourth Amendment covers evidence collection other than the statements of individual people. That area is addressed by the Fifth Amendment.

112. Brigham City v. Stuart, 126 S. Ct. 1943, 1947 (2006) ("[T]he ultimate touchstone of the Fourth Amendment is 'reasonableness' . . . ." (quoting Flippo v. West Virginia, 528 U.S. 11, 13 (1999) (per curiam))); United States v. Knights, 534 U.S. 112, 118 (2001) ("The touchstone of the Fourth Amendment is reasonableness . . . .").

113. *See Knights*, 534 U.S. at 118-19 ("The touchstone of the Fourth Amendment is reasonableness, and the reasonableness of a search is determined 'by assessing, on the one hand, the degree to which it intrudes upon an individual's privacy and, on the other, the degree to which it is needed for the promotion of legitimate governmental interests.'" (quoting Wyoming v. Houghton, 526 U.S. 295, 300 (1999))).

114. *See* Wong Sun v. United States, 371 U.S. 471, 485 (1963).

115. *Cf.* Gerald G. Ashdown, *Good Faith, the Exclusionary Remedy, and Rule-Oriented Adjudication in the Criminal Process*, 24 WM. & MARY L. REV. 335, 336-37 (1983) ("Although the case-by-case approach may retain needed flexibility, its amorphous nature provides little guidance to the police as to what investigatory practices will be viewed retrospectively as reasonable on balance with the individual interest affected.").

116. Further, every defendant can file a motion to suppress on federal Fourth Amendment grounds, and most defendants have a very strong incentive to file claims even if they border on frivolous. Although most claims will fail, defendants do not pay the cost of filing the motion; defendants facing jail time are provided with attorneys free of charge under the Sixth Amendment. *See generally* Gideon v. Wainwright, 372 U.S. 335 (1963).

guilty man go free. To minimize this cost while ensuring the enforcement of Fourth Amendment rules, courts turn where possible to clear rules police can readily follow.[117] Clear rules announce ex ante what the police can and cannot do; so long as the police comply with the clear rules, the police will know that the evidence cannot be excluded. The Supreme Court recognized this point most clearly in *New York v. Belton*, quoting Fourth Amendment scholar Wayne LaFave: "Fourth Amendment doctrine, given force and effect by the exclusionary rule, is primarily intended to regulate the police in their day-to-day activities,"[118] the Court noted. The protection of the Fourth Amendment "can only be realized if the police are acting under a set of rules which, in most instances, makes it possible to reach a correct determination beforehand as to whether an invasion of privacy is justified in the interest of law enforcement."[119]

The need for clear rules explains both the existence and the contours of the reasonable expectation of privacy test. First, it explains why the Supreme Court has divided the Fourth Amendment into two discrete steps. Fourth Amendment doctrine includes two questions: the threshold question of what is a "search"—that is, what violates a reasonable expectation of privacy—and the second question of the circumstances when a search is "reasonable."[120] This bifurcation is sensible textually, as the Fourth Amendment prohibits "unreasonable searches and seizures."[121] But it also serves a critical functional role in light of the Fourth Amendment's suppression remedy. If the Fourth Amendment simply asked whether police behavior were "reasonable," the police would have little way to know ex ante whether the evidence they collected would end up being suppressed.[122] Dividing the Fourth Amendment into two stages provides considerable certainty by carving out a set of investigative steps that cannot lead to suppression. So long as the police stick to conduct that does not violate a reasonable expectation of privacy, the Fourth Amendment does not apply and the suppression remedy is unavailable.[123] In contrast, conduct that *does* violate a reasonable expectation of privacy *can* lead to suppression. The police must be very careful before engaging in such steps:

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117. *See generally* Wayne R. LaFave, "*Case-By-Case Adjudication" Versus "Standardized Procedures": The* Robinson *Dilemma*, 1974 SUP. CT. REV. 127.

118. 453 U.S. 454, 458 (1981) (quoting LaFave, *supra* note 117, at 141).

119. *Id.* (quoting LaFave, *supra* note 117, at 142). Clear rules will not be possible in every case, of course. For example, they are not feasible in contexts involving emergencies, such as those that implicate the exigent circumstances exception. However, rules are preferable to standards where feasible.

120. *See, e.g.*, Flippo v. West Virginia, 528 U.S. 11, 13-14 (1999) (per curiam) ("A warrantless search by the police is invalid unless it falls within one of the narrow and well-delineated exceptions to the warrant requirement . . . .").

121. U.S. CONST. amend. IV.

122. *See* Amsterdam, *supra* note 10, at 414-15.

123. I am excluding Fourth Amendment "seizures" here, which are covered by separate rules.

suppression of any evidence will result unless the police have a warrant or a fact-specific exception to the warrant requirement applies.

Now we can see the key inquiry the reasonable expectation of privacy test must resolve. The results of the test must somehow carve out specific police practices that are reasonable per se—that is, reasonable if allowed in all circumstances—and distinguish them from practices that are reasonable only when justified by a warrant or exception to the warrant requirement.[124] Some practices are not very invasive or not very likely to be abused; these practices are reasonable per se and can be free from Fourth Amendment regulation. For example, walking down a public street is reasonable per se, as giving the police the ability to walk down the street without justification is not likely to lead to civil liberties abuses. On the other hand, other practices are highly invasive or likely to be abused if left unregulated. These practices are reasonable only when the government can identify countervailing government interests such as probable cause or exigent circumstances in that specific case that render that particular search reasonable. For example, it would be unreasonable for the police to break into your house unless they had a very good reason such as a warrant, a pressing emergency, or your consent. Whatever the meaning of the phrase "reasonable expectation of privacy" in the abstract, the test must be interpreted in ways that make such distinctions in a relatively consistent and readily administered way.

The need for clear ex ante rules also pushes courts to announce when government conduct violates a reasonable expectation of privacy using rules rather than standards.[125] The courts may justify outcomes using models, but the outcomes themselves tend to be articulated as rules that provide clear ex ante guidance to law enforcement as to whether police practices violate a reasonable expectation of privacy. For example, when the Supreme Court applies the policy model, it usually balances privacy and security and announces a clear rule. Consider the prison case, *Hudson v. Palmer*:[126] the Court balanced privacy and security in the context of a prison and then announced the rule that prison inmates have no Fourth Amendment rights. Similarly, when courts apply the private facts model, they typically create a rule by defining the scope of what does or does not reveal private facts in a rule-like way. In *Jacobsen*,[127] for

124. This function is sometimes obscured by Fourth Amendment doctrine, which of course labels the question as whether the conduct is a "search" at all. This bifurcation allows the courts to carve out police conduct from reasonableness review. From a practical perspective, however, it is easier to understand the difference as being whether the police conduct is reasonable per se or needs to be assessed for reasonableness based on the circumstances.

125. *See generally* FREDERICK SCHAUER, PLAYING BY THE RULES: A PHILOSOPHICAL EXAMINATION OF RULE-BASED DECISION-MAKING IN LAW AND IN LIFE (1991); Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557 (1992); Cass R. Sunstein, *Problems with Rules*, 83 CAL. L. REV. 953 (1995).

126. 468 U.S. 517 (1984).

127. 466 U.S. 109 (1984).

example, the Court's conclusion that a chemical field test reveals no private facts was used to generate a rule that field testing does not trigger Fourth Amendment protection. The probabilistic model is probably most conducive to standards, although it too is usually used to justify a rule. In *California v. Ciraolo,*[128] for example, the alleged frequency of aerial surveillance was used to justify a rule that aerial surveillance does not violate a reasonable expectation of privacy. Even when the Supreme Court promulgates a standard, such as the "open fields" doctrine's four-factor test to distinguish "open fields" from "curtilage,"[129] application of the test by lower courts ends up creating a doctrine that begins to look very rule-like.[130]

This pressure has led to specific Fourth Amendment rules for almost every common way of collecting evidence. A few moments leafing through Wayne LaFave's magisterial *Search and Seizure* treatise confirms the point: the treatise devotes about 370 pages to summarizing the rules.[131] However complex or vague the "reasonable expectation of privacy" test may be in theory, it takes on firm shape in the thousands of decisions implementing it in very specific factual contexts. For example, detailed case guidance tells the police how the reasonable expectation of privacy test applies to searching stolen goods,[132] opening screen doors,[133] searching hotel rooms after checkout time,[134] searching rental cars,[135] accessing computer files,[136] entering temporary housing set up by campers and squatters,[137] peering into houses through open

128. 476 U.S. 207 (1986).

129. *See* United States v. Dunn, 480 U.S. 294 (1987).

130. *See, e.g.*, United States v. Seckman, 175 F. App'x 193, 196 (10th Cir. 2006) (noting that under the four-factor open fields doctrine, the police can go "places where visitors could be expected to go, i.e. walkways, driveways or porches").

131. *See* 1 WAYNE R. LAFAVE, SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT 321-780 (4th ed. 2004).

132. *See* United States v. Caymen, 404 F.3d 1196 (9th Cir. 2005) (finding no reasonable expectation of privacy in the contents of a stolen computer).

133. United States v. Arellano-Ochoa, 461 F.3d 1142 (9th Cir. 2006). The opinion begins, "We publish to clarify Fourth Amendment law regarding the police opening a screen door without a search warrant." *Id.* at 1143. Relying on the probabilistic model, the court ruled that the answer hinges on whether the solid door behind the screen door is open or closed. Opening a screen door backed by a closed solid door does not violate a reasonable expectation of privacy, whereas opening a screen door violates a reasonable expectation of privacy if the solid door happens to be open. *Id.* at 1145.

134. *See, e.g.*, United States v. Dorais, 241 F.3d 1124, 1128 (9th Cir. 2001) ("[A] defendant has *no* reasonable expectation of privacy in a hotel room when the rental period has expired and the hotel has taken affirmative steps to repossess the room."); United States v. Nerber, 222 F.3d 597, 600 n.2 (9th Cir. 2000) ("For Fourth Amendment purposes, a hotel room is treated essentially the same, if not exactly the same, as a home.").

135. United States v. Thomas, 447 F.3d 1191, 1196-99 (9th Cir. 2006).

136. *See, e.g.*, United States v. David, 756 F. Supp. 1385 (D. Nev. 1991).

137. *See* Amezquita v. Hernandez-Colon, 518 F.2d 8 (1st Cir. 1975) (finding no reasonable expectation of privacy for squatters).

windows,[138] and many other more or less common investigatory techniques.

The question is, what set of principles can best distinguish police practices that are reasonable per se from practices that are reasonable only with a warrant or under special circumstances? What principles can help courts answer this question in a case with specific facts so that the court can announce whether that practice does or does not violate a reasonable expectation of privacy?

B. *Why the Proxy Models Cannot Provide Exclusive Guides to Fourth Amendment Protection*

Three of the four models of Fourth Amendment protection rely on proxies to draw the line between police practices that are reasonable per se and practices that are reasonable only with a warrant or special circumstances. The probabilistic model relies on the proxy of probability that an event will occur; the private facts models relies on the proxy of information exposure; and the positive law model relies on the proxy of positive law regulating access to places and information. In this Part, I explain why none of these models can provide the exclusive guide to Fourth Amendment protection. The reason is straightforward: each model provides an accurate proxy in some situations but fails in important types of cases. As a result, no one proxy model can provide the exclusive guide to Fourth Amendment protection.

1. *The Probabilistic Model*

Let's start with the probabilistic approach, which teaches that an individual's reasonable expectation of privacy is violated if the government accesses information in an unusual or unexpected way. In many cases, this test successfully distinguishes less troublesome police practices from more troublesome practices. The main reason is that individuals often control their privacy, and when they control their privacy they can decide to take or reject protective measures to make privacy invasions more or less difficult. Individuals will tend to hide their most private information unusually carefully, and they won't bother hiding information that is not private. As a result, a highly unexpected intrusion will often correlate with a particularly severe intrusion on privacy that is reasonable and desirable only if justified by exigent circumstances or a warrant.

A few simple examples confirm the point. If you have a personal diary and you want to keep it safe from prying eyes, you might hide it in a locked box tucked away in your bedroom closet. You'll protect your privacy by taking measures that render access unlikely. In contrast, you won't take strong measures if you don't fear the consequences of observation. You might leave a

138. United States v. Barajas-Avalos, 377 F.3d 1040 (9th Cir. 2004) (holding that approaching a window of a home and peering inside is a search).

book on the backseat of your car where anyone can see it: onlookers can look through your window and see what you're reading, but you're unlikely to care. (And if you do care, you can put the book in the trunk.) The probabilistic model offers a helpful proxy in such cases because the likelihood of privacy seems to correlate reasonably well with the invasiveness of its deprivation. Government access to frequently accessed places will usually be reasonable per se, while government access to rarely accessed places will usually be unreasonable unless justified by specific circumstances such as a warrant.

However, the correlation often will not hold. In many cases, modest intrusions on privacy that are per se reasonable will also be highly unexpected, and common intrusions may trigger very severe government practices that are reasonable only if justified by a warrant or exigent circumstances. Individuals often lack control over their privacy. As a result, they cannot take steps to make such intrusions more or less likely. For example, imagine the government announced that the FBI is tapping every single telephone call in the United States to listen for evidence of criminal activity. The invasions of privacy would be extraordinarily severe, but no reasonable person would expect privacy in their calls after learning of this fact.[139] The probabilistic model no longer works, as the fact of widespread surveillance would defeat Fourth Amendment rights against it. Similarly, consider a burglar plying his trade in a vacant home far removed from any surveillance cameras or any other observers.[140] The burglar could quite rationally expect privacy under the circumstances, and under a probabilistic approach would have a reasonable expectation of privacy in the burglarized home. The low chances of being watched would require the police to obtain a warrant before observing the burglar, even if only from a public street. This result makes no sense, however, as monitoring from a public street seems to be a per se reasonable police practice.

As these examples show, the probabilistic model is only an occasionally useful guide to distinguish police practices that are per se reasonable from police practices that will be reasonable only if justified by a warrant or an exception to the warrant requirement. It is often true that invasive steps are rare and modest steps are frequent. But the reverse is common as well. As a result, the probabilistic model cannot provide the exclusive guide to Fourth Amendment protection.

2. *The Positive Law Model*

The positive law model has similar flaws as a universal guide. Like the

139. *Cf.* Amsterdam, *supra* note 10, at 384.

140. *Cf.* Rakas v. Illinois, 439 U.S. 128, 143 n.12 (1978) (noting that a burglar who has entered a home to commit a crime cannot have a reasonable expectation of privacy there).

probabilistic model, the positive law model provides an accurate proxy for the reasonableness of police practices in many cases. Positive law that restricts access to information and places often reflects widely shared notions of which accesses cause significant harms and which do not.[141] Courts, legislatures, and agencies will tend to promulgate rules restricting access to a person's private material when unfettered access will be harmful, which is a major factor in determining whether a particular government practice is reasonable per se or reasonable only in context. This means that government practices that violate positive law will often be reasonable only in context, and those practices that do not will often be reasonable per se.

Physical intrusions into the home provide an obvious example. Breaking into to your house interferes with your property rights; it also reflects a deeply invasive affront to your privacy and security. On the other hand, watching your house from a public street does not violate positive law; while it may be a bit creepy, it does not amount to a severe invasion of your privacy. In this context, positive law nicely matches our intuitions as to which kinds of police practices should be permitted without a warrant. The positive law model provides a useful proxy to determine when a government invasion violates a reasonable expectation of privacy.

But much like the probabilistic model, the positive law model does not work in every case. In many circumstances positive law will *not* accurately capture whether police practices are per se reasonable. This is true for two primary reasons. First, positive laws are enacted for a wide range of reasons that may have nothing to do with whether access by criminal investigators would be reasonable per se. Consider the FAA regulations analyzed in *Florida v. Riley*, the helicopter flyover case.[142] The FAA presumably drafted those regulations to minimize noise and deter accidents, not to limit the police. Whether the police happened to fly over or under FAA airspace limits has no significant connection to whether particular police flyovers are reasonable only if justified by a warrant. Similarly, imagine a person lives on a 100-acre farm with their small house in the center. Trespassing a few feet onto that person's property will violate his property rights but not infringe on his privacy.[143] In that setting, positive law does not accurately track the reasonableness of the government's investigation.

The positive law model may also be insufficient when technology or social

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141. *Cf.* HENRY M. HART, JR. & ALBERT M. SACKS, THE LEGAL PROCESS 148 (1994) ("Law is a doing of something, a purposive activity, a continuous striving to solve the basic problems of social living . . . . Legal arrangements (laws) are provisions for the future in aid of this effort.").

142. 488 U.S. 445 (1989).

143. *See* RICHARD A. POSNER, THE ECONOMICS OF JUSTICE 314 n.8 (1981) (noting that under the open fields doctrine, the Fourth Amendment permits invasions of property without triggering Fourth Amendment protection because the property invasion does not trigger a privacy invasion).

practice changes rapidly. The story is a familiar one, as it tracks the standard explanation for the move from *Olmstead* to *Katz*. Technology tends to shift the privacy implications of different law enforcement steps.[144] New technologies can divorce privacy and social norms from property law and other statutory and regulatory protections. New technological surveillance tools make it possible to invade privacy without interfering with property or other laws, and they can also make it possible to establish privacy without harnessing positive law.[145] As a result, technological change can make the function of positive law largely arbitrary; it no longer serves the same function it might if the technology remained stable. A test that focuses entirely on positive law such as property will be underprotective with technological surveillance techniques and may prove overprotective with other techniques.

Like the probabilistic model, positive law accurately distinguishes per se and contextually reasonable practices in some cases but not others. As a result, it cannot provide an exclusive guide to what makes an expectation of privacy reasonable.

3. *The Private Facts Model*

Finally, we can tell a similar tale about the private facts model. Like the probabilistic and positive law models, the private facts model offers an accurate guide to the line between per se reasonable and contextually reasonable police practices in some cases. The nature of the information obtained by the government is obviously a critical aspect of its invasiveness and need for legal regulation. It is extremely invasive if the police learn that you are HIV-positive; it is not invasive at all if the police recognize that you are having a bad hair day.

At the same time, the private facts model likewise does not work well in every case. Whether a government practice is reasonable per se often hinges on *how* the government obtains the information rather than *what* information they collect. For example, imagine the police break into a home in order to steal the daily newspaper. The fact that they only collect a public newspaper does not render the break-in a reasonable law enforcement practice. Surely no one would want the police to break into homes without a warrant so long as the cops obtained no particularly private information.[146] On the flip side, imagine a police officer turns on a TV set and watches a news program announcing that a basketball star is HIV-positive. Watching a broadcast is reasonable per se:

144. *See* Kerr, *supra* note 64, at 864-67.

145. *Cf.* Olmstead v. United States, 277 U.S. 438, 479 (1928) (Brandeis, J., dissenting).

146. In *Kyllo*, Justice Scalia tried to reconcile this by saying that any information about the inside of the home is automatically private. 533 U.S. 27, 34 (2001). But this is surely overbroad, as cases like *Smith v. Maryland*, 442 U.S. 735 (1979) (holding that pen register information sent from a home is not covered by Fourth Amendment), would suggest.

surely no one would suggest that the officer should have to obtain a warrant before watching TV. In these two examples, *how* the police collected information mattered more than *what* information they collected. As these examples illustrate, whether a particular police practice is reasonable per se or only contextually reasonable often depends on much more than merely the information obtained.

Further, focusing only on the information obtained can make police guidance difficult. The private facts model demands an ex post inquiry into whether a past search ended up disclosing information that courts can consider private or non-private. This can lead to clear rules when the police know with certainty what information their technique will yield. Under *Illinois v. Caballes*,[147] for example, the Court's consideration of dog sniffs follows a private facts model. Because the only fact disclosed is whether drugs are present, a nonprivate fact by judicial decree, the technique does not violate a reasonable expectation of privacy. The rules are clear ex ante because the dog sniff will never reveal a private fact: either the dog won't alert, revealing nothing, or the dog will alert to the presence of narcotics, revealing only information deemed not deserving of privacy protection in *Caballes*. *Caballes* thus leads to a simple rule: the Fourth Amendment does not regulate dog sniffs.

But no clear rule emerges when the private facts model is applied to physical searches of packages and car trunks. The officer wouldn't know what he'll see until he opens the package, which means that the officer wouldn't know if his opening was going to be a forbidden search until he opened the package and viewed its contents. If an officer physically opened a sealed package and the only private thing he saw were drugs, the search would be constitutional, but if the officer saw something private such as a private letter or personal item the opening would violate the owner's reasonable expectation of privacy. The legality of the search would seem to depend on the happenstance of how the narcotics were packaged, which savvy offenders could control to trigger Fourth Amendment protection. And imagine if the same rule were applied to searches in public places: A drug dealer could guarantee Fourth Amendment protection of his drugs even in public by taping his stash to the pages of his personal diary. The officer could not search for the drugs without opening the diary, presumably revealing private facts from the pages of the diary.[148] If the private facts model were applied to every case, officers would never know ex ante what steps they could take, and clever felons could manipulate the rules to guarantee Fourth Amendment protection even when conducting their offenses in public.

147. 543 U.S. 405 (2005).

148. This problem doesn't arise with dog sniffs because a well-trained dog either finds nothing or alerts to the presence of narcotics. Those are the only options, and neither option involves the possible disclosure of private facts.

C. *Why the Policy Model Cannot Provide an Exclusive Guide to Fourth Amendment Protection*

If the proxies cannot provide exclusive guides, the obvious alternative is the direct approach. At first blush, the policy model looks like a promising test to determine in all cases when an expectation of privacy is reasonable. This model restates the basic goal of the reasonable expectation of privacy test, which must identify police practices that are reasonable per se and separate them out from more invasive police practices that could only be reasonable in some specific contexts.[149] If the policy model accurately frames the basic goals of the reasonable expectation of privacy test, doesn't the policy model provide an exclusive guide to whether an expectation of privacy is reasonable? Shouldn't the courts apply the policy model in every case?[150]

This Part explains that the answer is "no." The policy model cannot provide the exclusive guide because lower courts cannot administer it consistently. The Fourth Amendment implications of most police practices never reach the Supreme Court; rather, they are decided bottom up from lower federal courts and state courts.[151] For this decentralized regime to work, the reasonable expectation of privacy test must be interpreted in a way that provides reasonably consistent results across different jurisdictions. If the law is to take shape without centralized guidance, the test must be sufficiently predictable that results in one jurisdiction are likely to lead to the same results in another.

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149. *See supra* Part II.A.

150. Professor Amsterdam believed courts could and perhaps should do so. *See* Amsterdam, *supra* note 10. Professor Amsterdam concluded that courts could not be honest that policy concerns were driving the scope of the Fourth Amendment because police officers could not implement such policy concerns in the field. *See id.* at 403-05. This explanation is weak, however, because the rationale for a court's decision is distinct from its resulting rule. That is, courts could easily apply the policy model and then announce a rule; the officers would then follow the rule and could safely ignore the policy argument that led to it. The difficulty with exclusive reliance on the policy model has a different source.

151. For the distinction between a "top down" and "bottom up" regulatory system, see generally Richard A. Posner, *Legal Reasoning from the Top Down and from the Bottom Up: The Question of Unenumerated Constitutional Rights*, 59 U. CHI. L. REV. 433 (1992). As Judge Posner explains:

> In top-down reasoning, the judge or other legal analyst invents or adopts a theory about an area of law—perhaps about all law—and uses it to organize, criticize, accept or reject, explain or explain away, distinguish or amplify the existing decisions to make them conform to the theory and generate an outcome in each new case as it arises that will be consistent with the theory and with the canonical cases, that is, the cases accepted as authoritative within the theory. . . . In bottom-up reasoning, which encompasses such familiar lawyers' techniques as "plain meaning" and "reasoning by analogy," one starts with the words of a statute or other enactment, or with a case or a mass of cases, and moves from there-but doesn't move far . . . .

Id. at 433. *See also* Ronald J. Allen & Ross M. Rosenberg, *The Fourth Amendment and the Limits of Theory: Local Versus General Theoretical Knowledge*, 72 ST. JOHN'S L. REV. 1149 (1998).

The policy model fails to provide that consistency because it provides no objective standards for what "practice" a court must evaluate. Fourth Amendment cases involve discrete sets of facts in which particular officers did particular things in particular ways. But the policy model requires balancing over an arbitrary set of hypothetical facts. When a court applies the policy model, it evaluates whether a particular range of policy practices should be regulated. No method exists for identifying the proper range, however, which means that no two courts are likely to pick the same range. This leads to unusually inconsistent rules: different ranges will produce different balances and result in different rules of different scope. As a result, the policy model cannot provide an exclusive guide to Fourth Amendment protection.

1. *Lower Courts and the Reasonable Expectation of Privacy Test*

Police practices are, in Anthony Amsterdam's phrase, "a perpetual Pandora's box."[152] The Fourth Amendment applies to all of the eight million government employees in the United States,[153] including the more than eight hundred thousand law enforcement officers who have powers to make arrests in criminal cases.[154] Every year, those officers conduct hundreds of millions of criminal investigations, leading to about fourteen million arrests every year.[155] Most of those investigations will involve multiple steps potentially subject to Fourth Amendment regulation. And the steps the police may take in those investigations are incredibly diverse, offering every imaginable fact pattern under the sun.

Consider an officer "walking the beat" in an urban neighborhood. The officer might walk down the street, knock on doors, enter stores, look in shop windows, check out an alleyway, rattle a door handle, look through trash, peer in a parked car, talk to witnesses, inquire of suspicious activity, ask someone for identification, or put someone in handcuffs. Similarly, consider an officer surveilling a home for evidence of illegal activity. The officer might watch the street from his parked squad car, use a flashlight to peer in a window, use a "shotgun" microphone to hear what is inside, get electricity and telephone records from the home, knock on the door in an undercover capacity, or find

152. *See* Amsterdam, *supra* note 10, at 386-87 ("[T]he police engage in a vast range of activities affecting a broad spectrum of citizens' interests in a complex variety of ways.").

153. According to the U.S. Census Bureau, in 2006 there were 5.1 million state government employees, *see* State Government Employment Data: March 2006, http://ftp2.census.gov/govs/apes/06stus.txt, and 2.7 million federal government employees, *see* Federal Government Civilian Employment by Function: December 2006, http://ftp2.census.gov/govs/apes/06fedfun.pdf.

154. Bureau of Justice Stats., U.S. Dep't of Justice, Law Enforcement Statistics, http://www.ojp.usdoj.gov/bjs/lawenf.htm

155. According to FBI figures, there were about fourteen million arrests in the United States in 2006. FED. BUREAU OF INVESTIGATION, CRIME IN THE UNITED STATES tbl.29 (2006), *available at* http://www.fbi.gov/ucr/cius2006/data/table_29.html.

out what mail is being delivered. An FBI agent investigating a CEO for insider trading might tap the CEO's phone, obtain his bank records, access his computer files, or search his desk drawers. In all of these settings, the government's investigation will be governed primarily by a single constitutional command: the Fourth Amendment's prohibition on unreasonable searches and seizures. The Fourth Amendment must contain rules to govern all of these steps.

Determining which of these police practices infringe a reasonable expectation of privacy begins—and in most cases ends—with the lower courts. When the police begin using a new law enforcement practice that leads to evidence in criminal cases, decentralized lower courts will begin applying established precedents from analogous contexts and will announce rules that govern the new practice. If a government practice is covered by a preexisting rule, then courts will simply apply that rule. But if the practice is not already covered by a rule, individual lower courts will draw analogies to existing precedents and will announce rules as to whether and when the technique violates a reasonable expectation of privacy. A federal district court in Ohio might start with one decision; a state appellate court in Alabama might be next. Lower courts' decisions will begin to dot the landscape. If the rules announced in the early decisions are consistent across decisions, investigators nationwide will come to rely on them. Treatises, police manuals, and other doctrinal guidance will consider them established law even if no binding guidance exists in a particular officer's jurisdiction.[156]

The Supreme Court cannot generate more than a small fraction of these rules. The high Court is authoritative when it speaks, but it speaks only rarely.[157] In recent years, the Court has agreed to review only about eighty cases every year from the 8,000 or so petitions filed in all areas of federal law.[158] In a typical year, a handful of those cases concern some aspect of the Fourth Amendment. And on average, only about one case per year concerns some aspect of the reasonable expectation of privacy test.[159] Further, the Supreme Court's occasional guidance tends to be very narrow. For example, *Illinois v. Caballes* created a rule for dog sniffs by well-trained dogs, but only

156. Further, heavy reliance on treatises such as Wayne R. LaFave's *Search and Seizure*, *supra* note 131, means that as soon as a rule is settled enough to appear in LaFave's treatise, many courts will simply treat it as "the law."

157. *Cf.* Paul M. Bator, *What Is Wrong with the Supreme Court?*, 51 U. PITT. L. REV. 673, 678 (1990) ("And what is the capacity of the Supreme Court? Like it or not, it is finite. Over the years, we have learned that the United States Supreme Court cannot be asked to decide more than 150 to 175—200 at the most—cases with full opinion in a year.").

158. *See generally* Philip Allen Lacovara, *The Incredible Shrinking Court*, AM. LAW., Dec. 2003, at 53, 54.

159. A Westlaw search for the phrase "reasonable expectation of privacy" in the SCT database yields 81 hits as of March 1, 2007. About half of these cases are decisions that actually apply the test as compared to those that simply mention the phrase in the course of discussing another topic.

dog sniffs by well-trained dogs.[160] *Kyllo v. United States* created a rule for sense-enhancing devices not in general public use directed at a home, but its rule doesn't cover sense-enhancing devices directed at a car or person nor devices that are in general public use.[161] Because the Supreme Court's cases are so few and so narrow, the Supreme Court's decisions cover only a tiny sliver of fact patterns common in police investigations. Absent substantial conflicts in the lower courts, the Supreme Court normally will stay away and let the lower courts have the final word.[162] In all but extraordinary circumstances, the meaning of the reasonable expectation of privacy test evolves case by case in lower court decisions without any Supreme Court involvement.

The rarity of Supreme Court intervention places a premium on consistency among the lower courts. Lower court agreement effectively settles the rule for a particular technique, inducing reliance among law enforcement and making it unlikely the Supreme Court will ever address the issue.[163] In contrast, inconsistent lower court decisions leave investigators in most jurisdictions unsure of whether particular techniques can be used.[164] If a district court in New Jersey says that a technique violates a reasonable expectation of privacy but a state appellate court in New Hampshire disagrees, those decisions will give no guidance to police officers in California or Texas or New York. Investigators need rules, and inconsistent rules from other jurisdictions are equivalent to no rules at all. As a result, the reasonable expectation of privacy test must provide sufficient guidance that an officer in one jurisdiction can normally expect that an open issue of Fourth Amendment law in his own jurisdiction will be decided the same way as precedents in other jurisdictions.

2. *The Instability of the Policy Model in the Lower Courts*

The policy model cannot provide this consistency because it requires courts to identify a particular "practice," and that practice always can be defined more narrowly or more broadly. A Fourth Amendment case always involves specific facts. But the policy model does not: it asks courts to assess whether a particular set of practices require regulation, inviting a balancing of interests

160. 543 U.S. 405 (2005).

161. 533 U.S. 27 (2001).

162. *See* H.W. PERRY, JR., DECIDING TO DECIDE: AGENDA SETTING IN THE UNITED STATES SUPREME COURT 246, 251 (1991). The Supreme Court agreed to hear only about one percent of the cases it is petitioned to review. By far the most important factor in whether the Supreme Court agreed to take a case is whether the lower courts have divided on how the law applies to that set of facts.

163. Absent a lower court division, the chance that the Supreme Court would agree to hear a case to resolve whether a police practice violated a reasonable expectation of privacy is extremely low.

164. If a split exists in foreign jurisdictions, the officer will not have any assurance that a court would rule in the government's favor.

over the range of those facts that fall within the defined practice. Courts can select a very narrow range of facts that define the practice under consideration, such as only those facts exactly like the case before them. Alternatively, they can pick a very broad range of facts or some arbitrary subset in between. No one choice is "correct," as law enforcement practices are not self-defining. As a result, each court that applies the policy model must make an essentially arbitrary decision as to the scope of the law enforcement practice that it is considering.

This renders the policy model highly unstable. Judges can reach whatever result they like by simply manipulating the realm of cases for which the balance will be drawn.[165] A judge committed to ruling for the government could apply the policy balance over a realm of facts that happen to share strong government interests and lesser privacy concerns, of which the facts before the court happen to be at the outer bounds. On the other hand, a judge eager to rule for the defense in the same case could apply the same balance over a realm of facts with lesser government interests and greater privacy concerns, albeit one that also happens to include the case before it. The result would be two completely different rules with different results and different scope even though the two judges followed the same framework and shared the same assessments of the privacy and security interests.

Consider an example. Imagine that a lower court must decide whether a suspect has a reasonable expectation of privacy in his work e-mail account, a question that is highly uncertain under existing Fourth Amendment doctrine.[166] Let's say that the suspect works in the Manhattan office of a Canadian company that has its computer servers in Toronto, and that the company's workplace e-mail policy states that employees should not expect any privacy in their work e-mail. Let's also say that despite the formal policy, most employees at the company use their work e-mail for personal reasons and treat their work e-mail as fully private. The police believe that the suspect committed serious crimes and left evidence in his work e-mails, and they obtain copies of the suspect's e-mails from the server in Canada without first obtaining a warrant. The issue before our hypothetical court is whether the suspect has a reasonable expectation of privacy in his e-mails.

In a world governed exclusively by the policy model, the correct answer depends entirely on the category of cases the court chooses to group together. If the court defines the category as all cases involving the contents of e-mails, then in all likelihood it will conclude that e-mail *does* merit a reasonable expectation of privacy. Most people consider their e-mail as highly private and deserving of strong privacy protection, so a balance of interests will yield the conclusion that an expectation of privacy in e-mail is constitutionally

165. This is limited by the possibility that the court's rule will trample on other holdings, however.

166. *See generally* ORIN S. KERR, COMPUTER CRIME LAW 394-445 (2006).

reasonable. But changing the category changes the balance. For example, imagine the court picks a narrower category such as e-mail stored outside the United States, or employee e-mail covered by a formal policy announcing that employees have no privacy rights. Or imagine the category only includes e-mail *both* stored abroad *and* covered by the workplace monitoring policy. The policy balance now shifts: the privacy interests are lesser within the subset of cases carved out by the narrower category, and a strong argument exists that *within that category* government interests outweigh privacy interests. Under that approach, the suspect should have no reasonable expectation of privacy in his e-mail because his case falls within a grouping that triggers lesser privacy interests.

Further, the categories are almost infinitely malleable. In the previous paragraph, the narrower range of facts led to no protection. But we could easily reverse this in the same hypothetical and find a broad category that is less protective than a narrow one. For example, a court could define the appropriate category with ever greater scope as all Internet communications generally, which would suggest that there should be no expectation of privacy. Or else it could draw the category narrowly as only e-mails that a user believes are private, a narrow category that would suggest that an expectation of privacy would in fact be reasonable. The outcome of the balance depends almost entirely on the selection of what facts are balanced.

If the Supreme Court decided every Fourth Amendment case, the malleability of the policy model might be a feature rather than a bug. It would let the Justices define the precise set of cases they want covered by a particular legal rule or standard.[167] The rule might be that there are no Fourth Amendment rights in prison (as in *Hudson v. Palmer*),[168] or that the police violate a reasonable expectation of privacy when they use sense-enhancing devices not in general public use to obtain details of the home not otherwise available without physical penetration of the home (as in *Kyllo v. United States*).[169] Whether these rules are correct or not, they impose a settled rule or standard for a given set of cases. At the Supreme Court level, the policy model lets the Court define an arbitrary range of facts and impose a rule that covers those facts.

But in a world of decentralized lower court rulemaking, reliance on the policy model is a recipe for doctrinal chaos. No two lower courts would be likely to pick the same category, resulting in a blizzard of inconsistent rules and

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167. Consider the precision of Justice Scalia's rule in the thermal imaging case, *Kyllo v. United States*, 533 U.S. 27 (2001). Scalia's rule announces that the police violate a reasonable expectation of privacy when they use (a) sense-enhancing devices, (b) not in general public use, (c) to obtain details of the home not otherwise available without physical penetration of the home. *See id.* at 34. This is a carefully articulated rule, reflecting a carefully chosen category under the policy model.

168. 468 U.S. 517 (1984).

169. 533 U.S. 27.

no predictability in any courts where the rule was not already settled. Different panels of different courts would pick different categories, leading to different rules in different jurisdictions. Officers in jurisdictions without a binding rule would have no way of predicting which way the courts would rule, defeating the primary interest in settling rules clearly. And because cases within a jurisdiction would build on other cases in that jurisdiction, the law in each jurisdiction would evolve separately. Even assuming that every judge shares *exactly* the same values and beliefs, each court would pick a different realm, leading to tremendous uncertainty from state to state and circuit to circuit.

D. *The Case for Multiple Models*

Multiple models provide a critical benefit over a single model. Whereas no one model suffices in every case, the use of multiple models permits the Supreme Court to generate localized guidance.[170] Different models accurately draw the line between reasonable per se and contextually reasonable police practices in different settings. Using multiple models lets the Justices explain decisions using the models that best draw the line in that particular setting. Further, certainty among lower courts can result because lower courts naturally adopt the Supreme Court choice of model when reasoning by analogy. Common techniques of analogical reasoning lead lower courts to reflect the Supreme Court's choices of models in analogous cases, leading both to the adoption of similar rules across decentralized courts and localized guidance that helps accurately distinguish per se from contextually reasonable law enforcement practices.

The result is a system of localized control of the various models, with different models controlling outcomes in different contexts depending on which models best draw the line in each context. While no one model works in every case, the use of multiple models allows the courts to use the model that best identifies police practices in need of regulation in that context. This goes on to a modest extent already, albeit without judicial recognition of the four models.

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170. In an important article, Ronald Allen and Ross Rosenberg have argued that Fourth Amendment law consists of "localized knowledge," individual rules that are very clear in context but that lack a single top-down theory. *See* Allen & Rosenberg, *supra* note 151. I agree in part. Like Allen and Rosenberg, I see the development of Fourth Amendment law as largely a bottom-up rather than top-down process. I also agree that localized rules are a critical feature of Fourth Amendment doctrine. My approach differs in two essential ways, however. First, unlike Allen and Rosenberg, I do see a unifying goal that drives judges and Justices in Fourth Amendment cases. Allen and Rosenberg envision Fourth Amendment rules as organic, as the products of a grown system rather than a made one. *See id*. at 1198-99. In contrast, I think the system is made, but simply in a piece-by-piece way; it is made to create reasonable police practices in a system of exclusionary remedies. Second, I use the phrase "bottom-up" somewhat differently than do Allen and Rosenberg. Allen and Rosenberg focus, like most commentators, on the Supreme Court. In contrast, I mean "bottom-up" to refer literally to cases coming from the decentralized lower courts.

And it would work even more effectively if both judges and Justices recognized the four models and chose them consciously with the ends of Fourth Amendment protection in mind.

1. *Supreme Court Selection Among the Four Models*

The fact that different models provide accurate proxies in different contexts points to the primary benefit of using multiple models. When confronted with a new case, the Supreme Court can pick the model that best tracks the line between less troublesome and more troublesome police practices in that particular context. If the positive law model provides an accurate and consistent proxy, the Court can apply the positive law model; if the private facts model provides an accurate and consistent proxy, it can rely on the private facts model. The coexistence of multiple models allows the Supreme Court to select the model that works best in the context of that particular case. Indeed, we can see this already in the Supreme Court's Fourth Amendment decisions. Although the data points are too few to develop a strong empirical claim, it appears that the choices of models have not been not random. Reviewing the Court's cases reveals that its choice of models correlate reasonably well with the contexts in which those models accurately help distinguish police practices that are reasonable in every case from practices that are reasonable only if the police have a warrant.

For example, the private facts model appears particularly often in cases involving new technologies. The private facts model was used to regulate chemical tests for drugs in *United States v. Jacobsen*,[171] taking photographs made during aerial surveillance in *Dow Chemical Co. v. United States,*[172] and the use of tracking devices in *United States v. Karo*[173] and *United States v. Knotts*.[174] In all of these cases, the government used tools to obtain information that may not have been perceptible with unassisted human observation.[175] Why did the Justices pick the private facts model in technological surveillance cases? It seems unlikely that they thought consciously in terms of different "models." However, they no doubt looked at the many existing precedents with their many inconsistent rationales and picked the set of arguments that made the most sense in context. Relying on probabilistic or positive law approaches in cases involving technological surveillance would have an obvious drawback: technological evolution renders the probabilistic model unpredictable, and technology destabilizes the link between privacy and positive law. In contrast,

171. 466 U.S. 109 (1984).

172. 476 U.S. 227 (1986).

173. 468 U.S. 705 (1984).

174. 460 U.S. 276 (1983).

175. In contrast, the Court has rejected the private facts approach in cases involving the physical moving and opening of physical things such as packages. *See supra* notes 58-59 and accompanying text (discussing *Arizona v. Hicks*, 480 U.S. 321 (1987)).

the private facts model works independently of the technology and thus permits a stable rule that remains constant as technology changes. Given that, it should be unsurprising that the Supreme Court gravitated towards the private facts model in cases that involve technological surveillance.

The probabilistic model appears to surface mostly in investigations that occur in group settings. The Court relied on the probabilistic model in *Bond v. United States*, the case in which an officer walked the length of the bus and manipulated all of the passengers' luggage.[176] The Court also relied on the probabilistic model in *Minnesota v. Olson*, the case involving Fourth Amendment rights of overnight guests.[177] In that case the Court considered the social practices and expectations of guests together with hosts, and reached a rule relying on the probabilistic model. Why might the Justices favor the probabilistic model in group settings? The likely reason is that practices in group settings tend to hinge on social norms that are difficult for the government to manipulate. In a group setting, social practice will tend to reflect the invasiveness of a particular technique relatively directly: if an unusual technique leads to the discovery of evidence, it is likely that the technique was also unusually invasive. Further, as social practices and actual expectations of privacy change, the rules can change along with them under the probabilistic model. In that context, the probabilistic model likely will prove a more stable and clear basis for distinguishing regulated from unregulated law enforcement techniques.

The positive law model tends to govern physical access to houses, packages, letters, and automobiles.[178] If a person owns a package, letter or car, physically opening it up will violate his reasonable expectation of privacy; if a police officer merely looks at these objects from the outside, but does not physically access them, it will not.[179] The selection of the positive law model in physical entry cases makes sense: it provides clear and familiar ex ante guidance for police, and in this context it resonates with our intuitions as to what kind of investigative steps are only modestly invasive and what steps are highly invasive. It is common to hide private materials in our property; access to our property seems highly invasive. In contrast, merely observing the outside of our property seems much less invasive; in the case of physical access,

176. 529 U.S. 334 (2000).

177. 495 U.S. 91 (1990).

178. *See, e.g.*, Rakas v. Illinois, 439 U.S. 128 (1978) (applying positive law model to search of an automobile).

179. Once again, the trend has exceptions. Most notably, the open fields doctrine permits a great deal of trespass on private property, justified under the private facts model instead of the positive law model. *See* Oliver v. United States, 466 U.S. 170 (1984) (arguing that walking on open fields did not violate a reasonable expectation of privacy because open fields were not likely to be places in which the police would uncover private facts). It's actually somewhat unclear whether this rationale counts as the private facts model or the policy model: it uses the language of the private facts model, but at a macro scale it seems most at home in the policy model.

property law seems like a reasonably accurate guide to the invasiveness of government conduct.

Finally, when none of these three approaches provides a sensible mechanism for drawing lines between regulated and unregulated police practices, the Court has tended to embrace the policy model to achieve the desired results directly. Consider *Hudson v. Palmer*, the case about searching prison cells.[180] The Supreme Court created the sensible rule that inmates do not have Fourth Amendment rights in their cells under any circumstances. To do this, the Court relied on a broad application of the policy model: society's interest in order in penal institutions outweighed the inmates' privacy interests.[181] That result would have been more difficult to reach under the other three models, as each would have called for a more fact-sensitive inquiry that would have led to uncertainty and frequent litigation. Although many prison searches are common, presumably some are not, creating uncertainty under the probabilistic model. Prisoners may have some property in their cells, creating uncertainty under the positive law model, and a prison cell search may uncover private items such as a diary, creating ex ante uncertainty under the private facts model. Instead of becoming bogged down with these difficulties, the Court simply bypassed them and created the desired clear rule directly under the policy model.

To be clear, I'm not suggesting that these categories are firm or clear. It seems that the Justices have been at most only vaguely aware of the different models, so it would be quite surprising if their past decisions neatly lined up based on specific categories. My point is more modest: different models fit better or worse in different contexts, and past Supreme Court decisions appear to reflect this even without expressly acknowledging the different models.

2. *Lower Court Use of the Four Models*

The fact that the Supreme Court can pick whatever model works best in context is not by itself a particular strength of the multiple models approach. However, it does become a particular strength when paired with lower court applications of the reasonable expectation of privacy test. Recall that the Supreme Court decides very few applications of the reasonable expectation of privacy test; for the most part, rules evolve in the lower courts. The use of multiple models in Supreme Court opinions provides a way that the law can develop consistently and accurately in the lower courts. When novel issues arise in the lower courts, lower courts will naturally reason by analogy to the Supreme Court's decided cases.

Analogical reasoning will focus lower court judges on the reasoning of the Supreme Court's analogous decisions, which will in turn push the lower courts

180. 468 U.S. 517 (1984).

181. *Id.* at 526.

to apply the same models that the Supreme Court chose in that context. The models will propagate to analogous sets of facts. When this process is repeated over time, the Fourth Amendment tapestry evolves into a system of regional dominance—regional in the sense of categories of cases, not geography—of different models of when an expectation of privacy is reasonable. Different models will apply in different contexts based on the models that the Supreme Court picked in analogous cases. This leads to both increased accuracy and increased consistency in the evolution of the reasonable expectation of privacy test. Lower court cases will often draw the same analogies and then pick the same models, leading to greater consistency and predictability in the lower courts.

Importantly, this process can occur without conscious recognition of the models. When a Fourth Amendment challenge involves a new police practice unsettled by existing doctrine, litigants and courts will naturally turn to the facts—and then to the reasoning—of the most analogous Supreme Court decisions. If the Supreme Court applied the private facts model in the analogous case, the lower court will look to that opinion and mirror the reasoning of the private facts model. If the Supreme Court relied on a particular model, the lower court will do the same. Through the process of analogical reasoning, the Supreme Court's choice of model will guide lower court judges by providing different styles of reasoning that should apply in different types of cases. If the Supreme Court's chosen model accurately identifies police practices in need of regulation, lower court applications of the same model in similar cases should also draw the line accurately in the lower courts. Further, the Supreme Court's selection of model will ensure that lower courts all draw the same or similar lines. Although the selection of the model does not guarantee a result, it narrows the range of discretion and greatly increases the likelihood that different jurisdictions will reach the same outcome.

The Supreme Court's certiorari practice completes the feedback loop. If the lower courts all apply the models in the same way to new facts, then the Supreme Court is unlikely to intervene. When lower courts disagree on which model applies or how it applies, leading to different rules, the Supreme Court will usually take the case. The Court will address the circuit split, and resolve how the four models apply to that case. The Supreme Court's certiorari practices naturally police lower court applications of the four models, and uncertainty as to a model or its application tends to trigger Supreme Court review.

The road to the Supreme Court's thermal imaging decision, *Kyllo v. United States*,[182] demonstrates how this works. The first use of thermal imaging devices to detect the temperature of outside walls dates back to the early 1990s,[183] and lower court cases appeared regularly from that time until the late

182. 533 U.S. 27 (2001).

183. The first recorded decision on the Fourth Amendment implications of a thermal

1990s. The facts of most of the cases resemble those of *Kyllo*: narcotics investigators used the devices to measure the temperature of exterior walls, and used that information to help obtain a warrant. The defendants moved to suppress, arguing that use of the imaging devices had violated their reasonable expectations of privacy.

Such challenges raised a very difficult question not readily answered by existing precedents, so lower courts relied on two analogies to find their way. A few decisions analogized use of a thermal imaging device to garbage left on the street as in *California v. Greenwood*.[184] These courts applied the positive law model and ruled that the devices did not violate a reasonable expectation of privacy. Just as Greenwood had left her trash out in the open where anyone could get it, so had homeowners exposed their heat to the public.[185] Other cases instead analogized thermal imaging devices to other technological surveillance cases, such as cameras in aerial surveillance in *Dow Chemical Co. v. United States*[186] and electronic tracking devices in *United States v. Knotts*[187] and *United States v. Karo*.[188] These Supreme Court decisions relied on the private facts model, so the lower courts applied the private facts model to thermal imaging devices. The federal courts of appeals that addressed the issue concluded that thermal imaging devices did not reveal sufficiently intimate details of the home to violate a reasonable expectation of privacy.[189]

At least in federal court, the two sets of analogies led to two different models that happened to lead to the same result. If no courts had taken a different path, the Supreme Court presumably would have not intervened and the law surrounding thermal imagining devices would have become settled by the lower courts. The constitutionality of using thermal imaging devices became a rare subject for Supreme Court review after a few courts took a different view. Several state courts applied the private facts model and concluded that thermal imaging devices did in fact reveal sufficiently private facts to implicate a reasonable expectation of privacy.[190] The split between federal and state cases prompted Supreme Court review. The Court then

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imaging device appears to be *United States v. Penny-Feeney*, 773 F. Supp. 220 (D. Haw. 1991), which involved use of a thermal imaging device in April 1990.

184. 486 U.S. 35 (1988); *see, e.g.*, United States v. Myers, 46 F.3d 668 (7th Cir. 1995); State v. Siegal, 934 P.2d 176 (Mont. 1997).

185. *See, e.g.*, *Myers*, 46 F.3d 668.

186. 476 U.S. 227 (1986).

187. 460 U.S. 276 (1983).

188. 468 U.S. 705 (1984).

189. *See* United States v. Robinson, 62 F.3d 1325 (11th Cir. 1995) (upholding warrantless use of a thermal imager); United States v. Ishmael, 48 F.3d 850 (5th Cir. 1995); *Myers*, 46 F.3d 668; United States v. Pinson, 24 F.3d 1056 (8th Cir. 1994).

190. *See, e.g.*, Commonwealth v. Gindlesperger, 743 A.2d 898, 906 (Pa. 1999) ("[W]e conclude that Appellee met the requirements of *Katz* and thus established that a search implicating the Fourth Amendment occurred when law enforcement agents scanned his home with the WASP device.").

resolved the question with a rule that settled the question and provided additional guidance for how to resolve cases in analogous contexts.[191]

3. *The Need for Recognition of the Four Models*

Multiple models of Fourth Amendment protection provide a major advantage over a single model. They allow the Supreme Court to direct the use of particular models in different contexts, depending on which model most accurately identifies police practices in need of constitutional regulation. When judges and Justices are unaware of the four models, as they generally have been in the past, this process works modestly well. In the course of writing opinions, Supreme Court Justices naturally rely on precedents based on theories that create sensible results in analogous cases. Lower court decisions naturally will analogize to Supreme Court opinions, adopting the models and using them in new and similar cases. As a result, the four models will help courts draw the needed lines even when courts and litigants are not fully aware of the models and how they work.

Explicit recognition of the different models would help the process work more effectively. The Supreme Court's Fourth Amendment decisions sometimes have a shotgun quality: the Justices use any model they can to justify the selected result. The Court should realize that when it applies the reasonable expectation of privacy test, it faces a critical choice as to which model or models to use. The Supreme Court's choice of models in one case won't bind future courts to the same choice; rather, the Court must always make a context-sensitive selection of which model to use to explain the Court's result in a particular case. The Court should pick the model that in context best distinguishes less troublesome police practices that need not be regulated from more troublesome practices that are only reasonable when accompanied by a warrant or special circumstances. Furthermore, the Court's choice of model should be as clear as possible. By choosing the model or models, the Court's opinion will help frame the choice of models in analogous cases decided by the lower courts. To facilitate lower court decision making, Supreme Court opinions should pick models clearly.

Lower courts faced with novel Fourth Amendment questions should apply analogies to the Supreme Court's cases with the four models explicitly in mind. Lower court judges should study the most analogous Supreme Court opinions and note the models they used; the lower courts should then apply the Supreme Court's choice of models in those specific cases (with the possible exception of the policy model, which is almost universal in Supreme Court opinions but is used only relatively rarely in lower court decisions). This would mean a modified approach among those lower courts that have tried to encapsulate the "reasonable expectation of privacy" inquiry as a multifactor test. In the Fifth

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

Circuit, for example, the *Katz* test has been reduced to a multifactor test with "factors" drawn from explanations in the case law.[192] The Fifth Circuit has noted that different factors are more or less important in different contexts,[193] which is a step towards recognizing that the Fourth Amendment test includes localized rules where different models predominate. But the Fifth Circuit and other courts should drop the "multifactor test" entirely. The reasonable expectation of privacy test is simply not one test: it takes on different meanings in different contexts based on the direction of the Supreme Court's most analogous decisions in that context. To apply the test in a new set of circumstances, courts should apply the reasoning and model selection of the most analogous precedents rather than look to all of the various "factors" that have been used in the case law taken as a whole.

CONCLUSION

The reasonable expectation of privacy doctrine is the most often misunderstood aspect of Fourth Amendment law. Many imagine the phrase "reasonable expectation of privacy" as a test itself, and they mull over the words "reasonable," "expectation," and "privacy" as if a deep understanding of these three words will explain how the law applies. Their error is in assuming that the reasonable expectation of privacy doctrine is a single test, one top-down principle that applies to different facts to produce the correct answer. The reasonable expectation of privacy instead is decentralized; it takes on different meanings in different contexts. The exclusionary rule and the diverse facts of investigations prevent the adoption of a single top-down test. Although the single goal of distinguishing per se reasonable and contextually reasonable police practices drives the doctrine, implementing that goal through decentralized courts makes adoption of a single test impossible.

The use of multiple models appears at first blush to be inexcusable. Multiple models seem like a recipe for mass confusion. From a bottom-up perspective, however, the use of multiple models makes perfect sense. The law evolves gradually, case by case, in a decentralized layering process of settled rules building on settled rules. Confusion in theory doesn't amount to confusion in practice, as the justifications for the rules are distinct from the rules themselves. Once the rules are settled, the justifications for them no longer matter: what matters is how the Court's choice of models will help influence

192. *See, e.g.*, United States v. Runyan, 275 F.3d 449, 457 (5th Cir. 2001) ("[W]hether an interest is protected by the Fourth Amendment depends on five factors: (1) whether the defendant has a [property or] possessory interest in the thing seized or the place searched, (2) whether he has the right to exclude others from that place, (3) whether he has exhibited a subjective expectation of privacy that it would remain free from governmental intrusion, (4) whether he took normal precautions to maintain privacy, and (5) whether he was legitimately on the premises." (internal quotations omitted)).

193. *See id.*; *see also* Kee v. City of Rowlett, 247 F.3d 206, 213 (5th Cir. 2001).

courts in new cases not yet covered by rules. Using multiple models helps lower courts adopt new rules that better track the line between per se reasonable and contextually reasonable police practices in particular contexts. It facilitates decentralized Fourth Amendment rules that are tailored to the needs of different contexts.

The decentralized nature of the reasonable expectation of privacy test has important consequences for the development of Fourth Amendment law. First, it means that existing doctrine, once settled, is quite difficult to change. When the Supreme Court hands down a new decision applying a particular model, that decision is likely to have only very narrow importance. It may influence decisions in closely related cases, but it is unlikely to impact rules in other areas. This presumably explains why the Supreme Court's creation of the reasonable expectation of privacy test itself had little effect on the scope of Fourth Amendment protection. As I have noted elsewhere, the *Katz* revolution was more a revolution on paper than in practice.[194] And it also explains why symbolic cases like *Katz* and *Kyllo* have had little impact on Fourth Amendment law as a whole: the real fight is over the new fact patterns not settled by existing rules, and the same need to distinguish between per se and contextually reasonable police practices exists regardless of the Supreme Court's latest decision. What the Supreme Court says in individual cases matters, but it matters much less than most commentators assume it does.

Second, the decentralized nature of the reasonable expectation of privacy test suggests a potential new direction for legal scholarship. In the past, most scholars have assumed that the *Katz* test is a single test. As a result, commentators unsatisfied with existing law routinely urge the Supreme Court to adopt a meaning for *Katz* (or a replacement for it, depending on what they think *Katz* means) based on whatever normative principles they think would work best. Under the decentralized Fourth Amendment, however, such calls will necessarily fall on deaf ears. The Justices simply cannot embrace a single top-down approach regardless of how protective it may be. Instead of offering new top-down models, scholars should recognize that the principles guiding what is a "search" must necessarily be decentralized. Scholarship should focus on discrete law enforcement practices in the lower courts rather than grand theories at the Supreme Court and should make the case for applying different models to different practices.

Finally, the four models of Fourth Amendment protection should have important implications for how the courts apply and explain the reasonable expectation of privacy test. Currently the Justices mix and match models with only a modest awareness that they are shifting from one argument to another. The Justices should recognize and identify the models clearly, and should consider directly which models are likely to best distinguish police practices that are reasonable per se from police practices that are reasonable only with a

194. Kerr, *supra* note 64, at 816.

warrant or an exception in that category of case. Explicit use of the different models will increase the likelihood that the Justices select models that draw the needed line accurately and will also increase certainty ex ante for the police and lower courts as to which model will apply in what context. Lower courts will be more attuned to the Court's choice of models, furthering the signaling function, and the police will have greater certainty as to how the courts might apply the Fourth Amendment to new techniques not covered by existing law. Recognition of the four models will permit the Justices to better frame their decisions, both serving the goals of the Fourth Amendment and providing better guidance to the police and the public.