SEARCH AND SEIZURE LAW REPORT

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The Anatomy Of A Search: Intrusiveness And The Fourth Amendment*

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Introduction

For more than two months beginning in late December of 2005, police officers in New York State continuously monitored the location and movements of Scott Weaver's van using a surreptitiously attached GPS device, known as a "Q-ball." *People v. Weaver*, 909 N.E.2d 1195, 1195-96 (N.Y. 2009). The reason Weaver was targeted for police surveillance has never been disclosed. In addition, law enforcement made no attempt to justify the heightened scrutiny of Weaver by seeking the preauthorization of a warrant from a neutral magistrate. Rather, for 65 days, the police subjected Weaver to intense surveillance without oversight, interruption, or explanation.

More than a year after the round-the-clock tracking ended, Weaver was charged with, and convicted of, two burglaries. At trial, the prosecution introduced evidence obtained from the Q-ball. The defense fought to keep the evidence out, asserting that the placement and monitoring of the Q-ball constituted an impermissible search under state and federal law. The trial court rejected this claim. But in 2009, the New York Court of Appeals reversed, finding that the police action constituted an unconstitutional search. Though the New York court extensively discussed the strictures of the Fourth Amendment of the U.S. Constitution, it

ultimately grounded its decision in the protections afforded by the state constitution. The court overturned Weaver's conviction and ordered a new trial (from which the GPS tracking evidence will be excluded).

Five days before the New York decision was issued, the intermediate appellate state court in Wisconsin also considered the police use of GPS tracking to keep tabs on a suspect. State v. Sveum, 769 N.W.2d 53, 53, 56 (Wis. App. 2009). The Wisconsin court, in direct conflict with the New York court's conclusions, determined that "neither a search nor a seizure occurs when the police use a GPS device to track a vehicle while it is visible to the general public." Conducting its own assessment of the constraints imposed by the Fourth Amendment, the Wisconsin court equated the GPS device with the tracking beepers evaluated by the Supreme Court in *Knotts* and *Karo*. *Id*. at 58. (citing *U.S*. v. Knotts, 460 U.S. 276 (1983); U.S. v. Karo, 468 U.S. 705 (1984)). Finding that the two devices performed essentially the same function, the Wisconsin court concluded that no constitutional protection should be afforded. Accordingly, the court affirmed the conviction and sentence.

The decisions in *Weaver* and *Sveum* tell us far more than that New York and Wisconsin courts do not see eye to eye. The decisions are significant because they remind us that courts continue to wrestle with the appropriate treatment of

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novel technologies. The cases are also important because they illustrate the two avenues most often taken by state courts in the absence of further guidance from the Supreme Court. The first avenue—taken by the New York court—involves a state court opining about a just result under the U.S. Constitution, but then retreating to its own state constitution to define the appropriate level of protection. The alternate route—taken by the Wisconsin court—relies upon the analytical apparatus of analogy. Specifically, the Wisconsin court recounted conclusions regarding an earlier generation of surveillance equipment and then, without extended analysis, determined that analogous treatment was warranted in the case before it. Retreating to state constitutions and drawing analogies to previously considered forms of surveillance create at least two problems.

First, as state courts increasingly look to their own constitutions to define the floor of protection, we are left with a patch-work of decisions that tolerates wildly conflicting treatment of near-identical police conduct. The New York and Wisconsin decisions are a conspicuous example of this predicament. Moreover, where a clear path does not always connect one of the Court's search cases to the next, it is little surprise that a similar patchwork is developing at the intermediate federal level. Compare U.S. v. Maynard, 615 F.3d 544 (D.C. Cir. 2010) with U.S. v. Pineda-Morena, 591 F.3d 1212 (9th Cir. 2010). To the outside observer, the seeming randomness of the decisions undermines public perception of the system by allowing judicial opinions to be viewed not as the objective application of well-reasoned analysis, but as the implementation of individual judicial agendas. Moreover, at the street level, the seeming randomness of the decisions deprives law enforcement officers of objective and easy to apply rules that would better allow them to forecast permissible and impermissible police conduct.

Second, allowing the Court's assessment of earlier generations of surveillance technology to mechanically determine our tolerance of future generations of surveillance technology is problematic because in many cases the old conclusions fail to account for the greater intrusion occasioned by newer models. Therefore, allowing the Court's earlier constitutional treatment of a less intrusive technique to reflexively mandate the constitutional treatment of a new technology undermines privacy protections.

To address these concerns, the existing test for assessing the occurrence of a Fourth Amendment search should be modified when evaluating the constitutionality of enhanced surveillance devices. Specifically, intrusiveness should be unambiguously adopted by the Court as the benchmark for assessing and defining the existence of a search under the Fourth Amendment.

Moreover, intrusiveness should be clearly defined to require an examination of two factors: the functionality of a challenged form of surveillance and the potential for disclosure created by the device. These minor modifications to the existing rules will infuse more rigidity into the test for evaluating new technologies under the Fourth Amendment, while at the same time retaining much of the desirable flexibility of Katz's reasonableness inquiry. Adopting the proposed modifications will also allow state and lower federal courts to resolve questions raised by novel technologies in a more uniform manner and will enable them to avoid ill-suited analogies to earlier forms of enhanced surveillance. The proposed modifications also build upon, rather than clearly break with, existing law, making their adoption feasible. Because the proposal about how the law should change is built upon an assessment of where the law is, a discussion of the existing law is perhaps a good place to start.

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Problem with how we currently define searches: fuzzy definitions plus two errors in application equal limits on constitutional protection

The Fourth Amendment's prohibition against unreasonable searches is just one mechanism for protecting citizens against unjustified governmental invasions. The amendment's plain language suggests a two-part analysis in which a court first determines whether a *search* has occurred. If a

search has occurred, the court then determines whether that search was unreasonable—and therefore constitutionally objectionable. Many decades ago, however, the Supreme Court decoupled its analysis of the existence of a search from a bare examination of police conduct. Instead, the Court concluded that reviewing courts should examine whether a reasonable expectation of privacy existed. Katz v. U.S., 389 U.S. 347, 361 (1967). Further complicating matters, the Court determined that constitutional reasonableness should largely be equated with preauthorization by a warrant. See Agnello v. U.S., 269 U.S. 20 (1925). As a result, any conduct defined as a search has largely become perforce unreasonable absent a warrant, See Carroll v. U.S., 267 U.S. 132 (1925). If conduct is not defined as a search at the first step of the analysis, however, it is considered free of the amendment's strictures. See, e.g., Maryland v. Dyson, 527 U.S. 465 (1999); California v. Carney, 471 U.S. 386 (1985).

Since their inception, there has been much debate over both the reasonable expectation of privacy test and the warrant requirement. They have been lauded as desirable constitutional mandates and pilloried as baseless judicial constructs. See, e.g., Aya Gruber, Garbage Pails and Puppy Dog Tails: Is That What Katz Is Made Of?, 41 U.C. DAVIS L. REV. 781 (2008). However, whatever position one takes on the merits, there can be little dispute that legal conclusions about whether a search has occurred are now significantly impacted by the Court's desire (or lack thereof) to saddle law enforcement with the burden of obtaining a warrant. Oftentimes, the Court appears to work backwards from its desired result. Moreover, the malleability of the reasonable expectation of privacy test has facilitated a lack of transparency. As a result, great dissatisfaction with the Court's search jurisprudence has developed. Though there are many places one might choose to begin remedying the problem, this essay proposes that the Court start by refining the loosely articulated (but increasingly more relevant) objective reasonableness prong of the Katz test.

As noted above, the reasonable expectation of privacy test adopted in Katz is the two-part test used to assess violations of the Fourth Amendment. The test instructs reviewing courts to consider first, the subjective expectations of the defendant, and second, the objective reasonableness of the defendant's desires. U.S. v. Katz, 389 U.S. 347, 361 (1967) (Harlan, J., concurring). Under *Katz*, a "search" for purposes of the Fourth Amendment is defined as a governmental intrusion upon a subjective expectation of privacy that society is prepared to embrace as objectively reasonable. In applying the subjective expectation prong of the test, the reviewing court asks whether an individual has behaved in a manner that is consistent with a desire for privacy. See, e.g., California v. Greenwood, 486 U.S. 35 (1988). If the individual has, the court then analyzes whether that demonstrated desire for privacy is one that warrants the protection of the law.

In Katz, the Court did not express a hierarchy between the prongs. Thus, at the outset, the existence of a search was evenly dependent upon the existence of both subjective expectations and objective reasonableness. Over the years, however, significant analysis of the first prong of the Katz test has become increasingly absent from the Court's search jurisprudence. While the subjective expectation prong of Katz is officially still viable, in practice it is given little consideration. Indeed, as early as 1984, the Supreme Court suggested that it had always elevated analysis of the communal objective reasonableness prong over consideration of individual subjective expectations. Hudson v. Palmer, 468 U.S. 517 (1984); see also U.S. v. White, 401 U.S. 745 (1971) ("Our problem is not what the privacy expectations of particular defendants in particular situations may be Our problem, in terms of the principles announced in *Katz*, is what expectations of privacy are constitutionally 'justifiable.""). And, while there are plausible explanations for why diminished use of the subjective expectations prong might be occurring, significant problems are created by the rise of the objective reasonableness prong in the absence of clarity of its meaning.

The Court's failure to refine the objective reasonableness standard has resulted in the *Katz* test devolving into an amorphous standard that can be easily manipulated to mean whatever the particular group of justices forming a majority on the date of decision wants it to mean. Indeed, though far from the only critique, the most common complaint about the Court's current search jurisprudence is that it offers little guidance to the judges who are asked to apply it. *See*, *e.g.*, Lawrence Rosenthal, *The Crime Drop and the Fourth Amendment: Toward an Empirical Jurispru-*

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The objective reasonableness prong of the Katz test has been criticized as a "virtually standardless concept of reasonableness." And, as some commentators note, the failure to adequately guide the normative query leaves our citizenry unprotected against "the 'hydraulic pressures' favoring expansive police power at the expense of privacy and liberty." Morgan Cloud, A Liberal House Divided: How the Warren Court Dismantled the Fourth Amendment, 3 OHIO ST. J. CRIM. L. 33, 72 (2005) (quoting Terry v. Ohio, 392 U.S. 1, 39 (1968) (Douglas, J., dissenting)). Even some Justices have complained that case outcome is at times motivated not by any actual assessment of what is objectively reasonable, but rather by the caprice of the majority. Hudson v. Palmer, 468 U.S. 517, 549 (1984) (Stevens, J., concurring in part and dissenting in part) ("[The Court's] perception of what society is prepared to recognize as reasonable is not based on any empirical data; rather it merely reflects the perception of the four Justices who have joined the opinion that THE CHIEF JUSTICE has authored."). Providing greater clarity to the objective reasonableness prong will address many of these concerns, and can be developed from the Court's existing discussions.

Though the Court has not defined precisely what it means by objective reasonableness in the context of enhanced surveillance, it has suggested several relevant factors. With regard to sensory enhanced searches, the Court has found that the objective reasonableness of a challenged search is driven by the "intrusiveness" of government surveillance. See, e.g., U.S. v. Jacobsen, 466 U.S. 109 (1984). In this context, the Court does not use the term in its popular sense. Rather, beginning with Katz, the Court has used "intrusiveness" to capture two related inquiries-what type of information does the government's enhanced surveillance method uncover; and how much information can the surveillance device potentially disclose? For example, the Court has used the two-part intrusiveness inquiry to approve the warrantless use of devices that secretly transmit the numbers dialed on a telephone, but has disapproved devices that secretly record the substance of the conversation once the call is connected. Compare Smith v. Maryland, 442 U.S. 735 (1979) (affirming the warrantless use of a pen register) with Katz v. U.S., 389 U.S. 347 (1967) (declaring unconstitutional the warrantless monitoring of defendant Katz's conversation on a public pay phone). The Court has also used the intrusiveness inquiry to authorize both dog sniffs of closed containers and chemical field tests for narcotics—procedures that the Court has repeatedly described as occasioning only a trivial intrusion. U.S. v. Place, 462 U.S. 696 (1983) (describing police use of a trained narcotics detection dog as "much less intrusive than a typical search"); Jacobsen, 466 U.S. at 122 (dismissing a chemical field test for cocaine as only a minimal intrusion because it "could disclose only one fact previously unknown to the agent"). Similarly, aerial photographs of private property are permitted as long as they reveal only minor details. *See Dow Chem. Co. v. U.S.*, 476 U.S. 227 (1986). However, thermal imagers that reveal the intimate details of the home are not. *See Kyllo v. U.S.*, 533 U.S. 27 (2001).

Intrusiveness offers great promise as a more rigorous method for evaluating objective reasonableness. It is a useful concept that captures, in many respects, precisely what the Fourth Amendment was intended to protect against. As countless legal scholars have noted, the protections ensconced in the Bill of Rights were in no small part born of the Framers' profound suspicion of a powerful police force. E.g., Paul Butler, LET'S GET FREE: A HIP HOP THEO-RY OF JUSTICE 35 (2009) ("The Bill of Rights intentionally makes it harder for the police to do their jobs."); Fred H. Cate, Government Data Mining: The Need for a Legal Framework, 43 HARV. C.R.-C.L. L. REV. 435 (2008). The Fourth Amendment, which is an example of the depth of this suspicion, prevents the police from rummaging in our private affairs at will. Substantial official surveillance would be abhorrent to most Americans, even those who are not doing anything wrong. Intrusiveness as defined by the Court captures the offensiveness of such official rummaging. However, noting that the Court has embraced a valuable tool for assessing the constitutionality of various forms of enhanced surveillance is not the end of the story. For, in many respects, the intrusiveness inquiry is as malleable as objective reasonableness. Recall, the Court has used the concept of intrusiveness to invoke two parallel considerations: (1) the type of information that can be accessed by the government's enhanced surveillance method; and (2) the amount of information potentially disclosed by the surveillance device. However, in applying the standard, the Court has permitted analysis of the two prongs to become imbalanced, and has interpreted the first (type) prong of the test too broadly. I will deal with each in turn.

Intrusiveness offers great promise as a more rigorous method for evaluating objective reasonableness.

Type of information accessed

In practice, the Court has focused far more on the "type" portion of the inquiry than upon the amount of information potentially disclosed. This imbalanced application of the intrusiveness inquiry mirrors, in many respects, the Court's imbalanced application of the *Katz* test. However, while there are a number of good reasons for heavily favoring the objective inquiry of *Katz*'s two-part test, the same cannot be said for favoring intrusiveness' "type" analysis over its "amount of information potentially revealed" inquiry. Nonetheless, in case after case, the Court has given

dominant consideration to the type of information revealed and considered as an afterthought (if at all) the amount of information potentially revealed.

For example, in Smith, the Court began with a discussion of the type of information that was acquired by the government's pen register. Smith v. Maryland, 442 U.S. 735 (1979). The Court found that the pen register should be treated differently than the listening device in Katz, primarily because the type of information acquired by the two devices was substantially different. *Id.* ("Yet a pen register differs significantly from the listening device employed in Katz, for pen registers do not acquire the contents of communications."). In contrast, beyond summarily describing the amount of information gathered by the pen register as "limited," the Court engaged in no real analysis of the quantity of information the device might collect. As a result, constitutional treatment of the pen register was driven almost entirely by the Court's determination that it gathered the same type of information available to telephone operators in the days when calls were connected by human intermediaries. ("Petitioner concedes that if he had placed his calls through an operator, he could claim no legitimate expectation of privacy. We are not inclined to hold that a different constitutional result is required because the telephone company has decided to automate.").

Similarly, in U.S. v. White, the Court's ultimate determination that no Fourth Amendment search occurred was guided largely by its first-order observation that the type of information obtained by the challenged radio transmitter was not significantly different from the notes a government agent might take. As in Smith, after determining the type of information revealed, the Court failed to conduct any serious analysis of the amount of information potentially uncovered before reaching a decision about appropriate constitutional treatment. Because the Court saw little difference between the type of information that could be obtained by the agent acting alone and the type of information obtained by the transmitter, the Court refused to impose constitutional limits. ("If the conduct and revelations of an agent operating without electronic equipment do not invade the defendant's constitutionally justifiable expectations of privacy, neither does a simultaneous recording of the same conversations made by the agent or by others from transmissions received from the agent to whom the defendant is talking.").

The Court's favoring of the first prong of the intrusiveness inquiry is problematic for several reasons. First, intrusions upon our privacy are occasioned as much by the amount of information others learn about us as by the type of information disclosed. For example, most adults engaged in a single intimate relationship would likely not object strenuously to the public disclosure of the name of their current partner. Presumably though, that same group of adults would look much less dismissively upon the release of a comprehensive list of all their sexual partners. The type of information revealed in the second scenario is no different than that revealed in the first, but because the quantity of information disclosed has changed, the intrusion is amplified. By giving little thought to the second half of the intrusiveness analysis, the Court ignores the significant intrusion upon privacy that can be occasioned when large quantities of even a single type of seemingly innocuous information are disclosed.

Another problem with the Court's imbalanced reliance upon the first prong of the intrusiveness inquiry is that the Court, despite eschewing a bright-line-rules model of Fourth Amendment jurisprudence in Katz, is causing a return to more formalistic assessments. This is because the Court's focus on the type of information revealed has created two rough categories of devices—sense-augmenting or extrasensory. Placement of a device into one of these two categories then tends to drive its subsequent constitutional treatment. Specifically, the Court has tended to treat devices it considers sense-augmenting as presumptively constitutional. See Ramya Shah, From Beepers to GPS: Can the Fourth Amendment Keep Up with Electronic Tracking Technology?, 2009 U. ILL. J.L. TECH. & POL'Y 281 (2009). In contrast, the Court has tended to view extrasensory devices as more constitutionally questionable. See, e.g., U.S. v. Place, 462 U.S. 696, 719-20 (1983) (Brennan, J., concurring) (observing that dog sniffs "represent[a greater intrusion into an individual's privacy" because they add "a new and previously unobtainable dimension to human perception"). Because of the heightened suspicion with which it views extrasensory devices, the Court has permitted their warrantless use only where the amount of information revealed is tightly circumscribed. Compare Kyllo, 533 U.S. at 29 with Caballes, 543 U.S. 405 (2005), Place, 462 U.S. at 699, and Jacobsen, 466 U.S. 109 (1984).

Categorization is not entirely bad, and indeed there is much good to be said about it. For example, though the Court has rejected an entirely rules-based model of search jurisprudence, some categorization provides helpful guides for quickly determining which devices are permissible and which are not. In addition, when a clear test is used, categorization can enhance predictability by permitting a single case to govern the constitutional treatment of every device (present and future) that falls within the ambit of the category created. However, on the downside, when the test that produces categorization is too malleable, categorization can result in a jurisprudence that does not adequately protect—which brings us to the second problem with the Court's current construction of intrusiveness.

Overbroad "type" inquiry

As noted, the second concern created by the Court's existing intrusiveness inquiry is that the Court has used too broad an interpretation of the "type" inquiry. In particular, when assigning a challenged device to a category—sense-augmenting or extrasensory—the Court has focused on

whether information could *theoretically* be obtained by one of the human senses. If information could theoretically be obtained, the Court tends to assign sense-augmenting status. If information could not theoretically be obtained by a human the Court tends to assign the device extrasensory status. However, by focusing the type inquiry as it has, the Court has created a highly pliable standard that allows virtually everything to be pushed into the permissive sense-augmenting category.

For example, in Smith, prior to refusing warrant protection, the Court minimized the intrusiveness of the challenged pen register by describing it as merely the modern day equivalent of a switchboard operator. Smith v. Maryland, 442 U.S. 735 (1979). Similarly, in Kyllo, arguing that a warrant should not be required, the dissent went to great lengths to describe the thermal imager at issue in that case as a device that only mimicked human perception. Kyllo, 533 U.S. at 43 (Stevens, J., dissenting). In dissent, Justice Stevens commented that "the ordinary use of the senses might enable a neighbor or passerby to notice the heat emanating from a building, particularly if it is vented, as was the case here." The problem with the Court's theoretical human attainment standard is that for a sufficiently imaginative jurist, virtually any information disclosed in a surveillance-enhanced search could theoretically have been obtained by human surveillance.

Certainly, I am not the first to notice the shortcomings of the Court's Fourth Amendment jurisprudence. To address concerns with the existing search jurisprudence, learned commentators suggest a variety of new tests that they argue produce better outcomes that are more faithful to the purposes of the amendment. One such fix advances legislative action in place of constitutional protection. See Orin S. Kerr, The Fourth Amendment and New Technologies: Constitutional Myths and the Case for Caution, 102 MICH. L. REV. 801, 806 (2004). Another suggests completely discarding the warrant requirement. See Akhil Reed Amar, Fourth Amendment First Principles, 107 HARV. L. REV. 757, 800 (1994). Collapsing the Fourth Amendment's protection into notions of property rights has been advanced, see Cloud, supra, at 71-72; as has judging the existence of a search by the purpose of the official intrusion, see Thomas K. Clancy, What Is a "Search" Within the Meaning of the Fourth Amendment?, 70 ALB. L. REV. 1, 3 (2006). And, there are many more.

A detailed critique of each of the proposals exceeds the scope of this issue of SEARCH & SEIZURE LAW RE-PORT. However, suffice it to say that the usefulness of many of these critiques is limited by their shared precondition—the substantial rejection of existing doctrine. Consequently, whatever merit there may be in the proposals, their practical value is diminished by their stark improbability of actual adoption. Even with several new members, there is little chance the Court will significantly revamp the law of searches and seizures. For better or worse, the presumptive

warrant requirement and the *Katz* test are, at least for the foreseeable future, here to stay. The method for defining a constitutionally significant search proposed herein, therefore, suggests that we work within that existing doctrine.

ANTIDOTE: new way of thinking about intrusiveness

To address the concerns created by its current application of the intrusiveness inquiry the Court should do two things. First, the court should modify the existing "type" assessment to consider more accurately the quality of the information that is potentially revealed. Instead of considering only whether information revealed could theoretically have been obtained by the human senses, the Court should consider how challenged surveillance actually works. In addition, the Court should apply a more balanced consideration of the two prongs of intrusiveness. Thus, after considering how a device works (quality or type of information) the Court should also give considerable weight to the extent of disclosure made possible (quantity of information).

To accomplish these fixes, the modified intrusiveness inquiry proposed herein involves balanced consideration of two factors—functionality (to assess type or quality) and potential disclosure (to assess quantity). The two questions asked would be *how* and *what*. First, a reviewing court would examine how a device in question enabled or enhanced surveillance—"how does it work?" This is the "functionality inquiry." Next, the court would determine the extent of disclosure made possible by use of the device—"what can be discovered?" This is called the "potential disclosure inquiry." The functionality and potential disclosure inquiries would then be balanced to determine the relative intrusiveness of official conduct and, thereby, the objective reasonableness of challenged surveillance.

In contrast with the highly compliant theoretical human attainment query that is now engaged, the first factor of the proposed test considers the actual functionality of a device. Such consideration would be used to assess whether the device should be most properly categorized as "sense-augmenting" or "extrasensory." A sense-augmenting device is one that merely augments one of the five basic human senses-sight, hearing, taste, smell, or touch. In contrast, an extrasensory device is one that makes surveillance possible by exploiting a mode of perception not physiologically available to humans. For example, binoculars would be categorized as sense-augmenting because they merely magnify the existing human ability to detect electromagnetic waves in the visible range. Similarly, a flashlight would be deemed sense-augmenting because alone it perceives nothing; rather it only improves the human ability to see by providing a source of visible light. In contrast, a field test for cocaine would most properly be categorized as extrasensory because it uses chemical reactions to accurately detect the presence of cocaine, something even the human senses of taste and smell cannot do. A dog sniff for narcotics would be similarly categorized. *See Place*, 462 U.S. at 719 (1983) (Brennan, J., concurring) (observing that dog sniffs add "a new and previously unobtainable dimension to human perception").

The consequence of categorization during the first step of the proposed analysis would be a positive or negative presumption with regard to application of the Fourth Amendment. Put more simply, as noted above, the Supreme Court has historically treated use of a sense-augmenting device as a nonsearch that triggers no additional constitutional concerns beyond those triggered by unaided police conduct. See Anthony G. Amsterdam, Perspectives on the Fourth Amendment, 58 MINN. L. REV. 349, 379 (1974) (noting the historic observation "that the eye or ear could not commit a search"). Conversely, the Court has implied that the use of nonbinary extrasensory devices should be deemed a search and thus within the scope of Fourth Amendment protection. As the Court has at times recognized, though, an inflexible assignment of constitutional treatment based simply on a device's functionality can result in unduly formalistic results. Consequently, under my proposed inquiry, rather than giving near-conclusive weight to the assigned category (as the Court does now), the initial determination of constitutional treatment would be only a preliminary judgment. After determining how the device works, the next question to be answered under the proposed analysis is "how much can be discovered by use of this device?"

After determining how the device works, the next question to be answered under the proposed analysis is "how much can be discovered by use of this device?"

When considering the potential disclosure factor, a court would examine the extent of information potentially revealed by the surveillance device. Based upon what the court finds at this stage, it could either reject the preliminary assessment of constitutional treatment as unsuitable, or confirm it as appropriate. For example, the presumption that law enforcement's use of an extrasensory device deserves Fourth Amendment oversight might be rejected as unjustified in a particular case if the court determined during the potential disclosure inquiry that only a tightly circumscribed quantity of information could be revealed by the device in question. The opposite would also be true: if a great deal of information could be uncovered by official use of a sense-augmenting device, the original "non-search" presumption might be rejected in favor of constitutional protection. At bottom, the potential disclosure analysis is about considering "how much information is too much?" in the case of sense-augmenting devices, and is about asking "is the potential disclosure restricted enough?" in the case of extrasensory surveillance tools.

Though the Supreme Court has never identified the precise quantity of information necessary to override a preliminary presumption regarding constitutional treatment, it has given some indication of what is sufficient. For example, though a field test for drugs is an extrasensory implement, it is treated by the Court as a nonsearch because it can determine only the presence or absence of a controlled substance. U.S. v. Jacobsen, 466 U.S. 109 (1984). Indeed, such "binary searches," as some scholars have dubbed them, see David A. Harris, Superman's X-Ray Vision and the Fourth Amendment: The New Gun Detection Technology, 69 TEMP. L. REV. 1 (1996) (identifying U.S. v. Colyer, 878 F.2d 469, 474 (D.C. Cir. 1989), as having originated the use of the term), are the only type of extrasensory surveillance that the Court has ever approved for warrantless use. By way of comparison, use of the sense-augmenting microphone in Katz was treated as a search because of the vast quantity of information potentially revealed by the device. A hypothetical will help clarify how my proposed modifications to the intrusiveness inquiry would operate in practice.

Assume Officer Eager is walking his assigned beat in a neighborhood known for its frequent street-level drug sales. At the corner of Chance and Prospect Streets, Eager sees a legally parked SUV. He can see the heads of two people sitting in the vehicle through the clear front windshield. But, the height of the vehicle and tinting on its side windows prevent a clear view into the truck's interior. There is nothing about the appearance of the vehicle that raises Officer Eager's suspicion. Nonetheless, he determines that if he uses his binoculars while standing on steps across the street from the SUV, he can see into the vehicle through a worn area in the tinting on the passenger window. Eager makes out Dealer handing Buyer a small baggie containing white powder. Eager sees Buyer hand Dealer what looks like money. Eager radios for backup, and when Buyer exits the vehicle minutes later, he is arrested. A baggie of white powder is retrieved from his pants pocket. Dealer is also arrested. If Dealer is charged and moves to suppress the evidence at trial, there is little question that Eager's binocular-enhanced observation from a lawful vantage point on a public street would be deemed a lawful nonsearch under current Supreme Court doctrine. See U.S. v. Lee, 274 U.S. 559 (1927) ("[U]se of a searchlight is comparable to the use of a marine glass or a field glass. It is not prohibited by the Constitution."); see also Texas v. Brown, 460 U.S. 730 (1983) ("There is no legitimate expectation of privacy, shielding that portion of the interior of an automobile which may be viewed from outside the vehicle by either inquisitive passersby or diligent police officers."). A similar result would also be produced under the proposed intrusiveness framework.

Recall, under the proposed intrusiveness inquiry a court will ask two questions: "how does it work?" and "what can be discovered?" With regard to the first query, the burden is on the government to produce responsive evidence. Presumably, with regard to the hypothetical, the evidence produced would explain that Officer Eager's binoculars relied upon his existing ability to detect electromagnetic waves in the visible range and then magnified the images he detected. Because Officer Eager's binoculars merely enhanced a mode of perception already physiologically available to humans—the sense of sight—the court should classify the binoculars as a sense-enhancing surveillance implement. This classification would trigger a preliminary presumption that use of the device should be deemed a non-search not subject to the strictures of the Fourth Amendment.

After determining that binoculars are a sense-enhancing device, the court would next consider the extent of potential disclosure to verify that constitutional oversight was unnecessary. Specifically, the reviewing court would ask, "what could Officer Eager have learned through use of his binoculars?" If the amount of information potentially disclosed is significant, this finding may justify rejecting the initial nonsearch presumption. On the other hand, if the degree of information potentially disclosed is insignificant, this will validate the preliminary conclusion that constitutional oversight is unnecessary.

In some sense, the extent of potential disclosure in the hypothetical can be characterized as substantial. Though Officer Eager's binoculars can reveal no more than Eager might have discovered had he held his bare eye to the untinted portion of the SUV's window, it would not be unreasonable for one to press the contention that a great deal might nonetheless have been learned. Eager might have discovered any number of particulars by peeking into the car, including the owner and his paramour in flagrante delicto in the presumed seclusion of the rear seat. However, when assessing the magnitude of potential disclosure, subjective notions should not be the measure guiding the analysis. To improve the current state of Fourth Amendment law, the intrusiveness inquiry must not only reduce the possibility of intruding upon legitimate privacy interests, it must also be a workable, reasonable, and objective standard of constitutional protection. *Illinois v. Andreas*, 463 U.S. 765, 773 (1983). To that end, guidance must be taken from the existing case law. In the instant case, characterizing the potential disclosure as substantial is inconsistent with such guidance.

The question is whether the potential disclosure is so significant as to justify rejecting the presumptive treatment of sense-enhancing devices. Traditionally, the Supreme Court has treated visual observation as insignificant, provided the officer occupies a lawful vantage point at the time of observation. Consequently, where the mode of perception in the hypothetical is limited to visual observation, the potential scope of disclosure does not justify overriding the initial presumption that Officer Eager's binocular-enhanced observations were a nonsearch. In sum, because the binoculars rely upon a mode of perception that is already available to humans, and because the information that can be uncovered through the use of binoculars is limited to visual observations, their use by law enforcement is not restricted by the Fourth Amendment any more than an officer's naked eye observations would be.

But there would be little need for proposing a new test, if all it did was regurgitate results that can be squared with existing cases. Instead, the benefit of my proposed modification to the intrusiveness inquiry is that it also allows for a more consistent resolution of inventive fact patterns. For example, assume that instead of using a pair of binoculars, Officer Eager used a scanning device with imaging capabilities that allowed it to scan the interior of Dealer's car. Under existing case law, it is not entirely clear which way the Court would rule. *Compare Kyllo v. U.S.*, 533 U.S. 27, 40 (2001) (focusing on whether or not there was a physical intrusion to privacy) (Stevens, J., dissenting) (focusing on inferences drawn from information ascertained through new technologies). However, under the modified intrusiveness inquiry the outcome is clear.

At the first step of the intrusiveness analysis, the court might find that the scanner emitted ultra-wide-band radar waves that traveled through the exterior of the car to detect objects and movement in the interior. See, e.g., Kelly Hearn, High Tech Cop Tools See Through Walls, UNITED PRESS INT'L, April 18, 2001, available at http://www.commondreams.org/cgi-bin/print.cgi?file=/ headlines01/0418-04. htm; Time Domain Corporation, Time Domain Receives Fundamental Patent for Sense-Through-The Wall Radar Technologies, April 24, 2006, http://www.timedo main. com/news/wall.php. Clearly this is not something that any one of the five human senses is capable of doing. Therefore, the device would be categorized as an extrasensory device, triggering an initial presumption that its use should be deemed a search (and therefore subject to the strictures of the warrant requirement). The next task for the reviewing court would be to assess the amount of information potentially revealed to determine whether the initial presumption of constitutional prohibition is appropriate.

In the case of extrasensory devices, the Court has only exempted them from the reach of the Fourth Amendment when they provide binary results. The information disclosed by Officer Eager's scanner, though analogous to the visual observations enabled by the binoculars, would not be sufficiently restricted to justify rejecting the presumptive treatment of extrasensory devices. In other words, placing the modified intrusiveness inquiry at the heart of the Fourth Amendment inquiry concerning enhanced searches would impart greater structure to judicial consideration of novel technologies, and will hopefully allow courts to issue more uniform guidance when confronted with cutting-edge surveillance enhancements.

Conclusion

The Fourth Amendment can be a powerful ally in the fight to protect privacy. However, when it comes to technologically enhanced searches, the Court has engaged in two analytical missteps that undermine our privacy protections. By refusing to repeat these missteps in future cases, and by recalibrating the intrusiveness analysis to consider the actual functionality of surveillance devices, we can encourage a more vigorous protection of privacy interests while also remaining somewhat faithful to the course already charted by the Court.