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SEARCH AND SEIZURE: IT'S TIME THE COURT SHED SOME LIGHT ON THE USE OF ULTRAVIOLET LAMPS

The fourth amendment to the United States Constitution protects individuals from unreasonable searches and seizures. Since its

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

U.S. Const. amend. IV. The fourth amendment is applicable to the states through the due process clause of the fourteenth amendment. Mapp v. Ohio, 367 U.S. 643 (1961) (held that the due process clause of the fourteenth amendment makes the fourth amendment applicable to the states). For a discussion of the fourth amendment in reference to search and seizure incidents, see generally 1 W. LA FAVE, A TREATISE ON THE FOURTH AMENDMENT § 2.2 (1987) (provides understanding of fourth amendment by examining role sensory enhancing devices play in cases in which it is uncertain whether police activities constitute either a search or a seizure within the meaning of that amendment); Bernardi, The Exclusionary Rule: Is a Good Faith Standard Needed to Preserve a Liberal Interpretation of the Fourth Amendment?, 30 DE PAUL L. REV. 51 (1980) (examines a trend in Supreme Court holdings expanding the good-faith exception to the exclusion of evidence obtained in violation of the fourth amendment); Douse, The Concept of Privacy and the Fourth Amendment, 6 J. LAW REFORM 154 (1972) (provides a conceptual framework for analyzing fourth amendment search and seizure cases); Ervin, The Exclusionary Rule: An Essential Ingredient of the Fourth Amendment, 7 SUP. CT. REV. 283 (1983) (despite the arguments criticizing the exclusionary rule, author notes the importance of excluding evidence obtained in violation of the fourth amendment); Note, Fourth Amendment - Of Warrants, Electronic Surveillance, Expectations of Privacy, and Tainted Fruits, 75 J. CRIM. L. & CRIMINOLOGY 630 (1984) (examines why agents who, without a warrant, monitored a beeper attached to a can of noncontraband in a private residence, were held to violate fourth amendment).

2. By the time of Katz v. United States, 389 U.S. 347 (1967), it was generally held that searches conducted without a warrant were per se unreasonable. For an explanation of Katz and the impact that it had on fourth amendment analysis, see infra notes 33-54 and accompanying text. However, in certain well-recognized and limited circumstances, a warrantless search may be permissible. D.C.C.A. Project, Search Warrants, 27 HOW. L. J. 705 (1984). For an explanation of the few established exceptions to the warrant requirement, see infra note 130 and accompanying text.

Although the Supreme Court has had a rather easy time determining what is "unreasonable," the Court has experienced difficulty in defining the word "searches"
creation, however, the fourth amendment has encountered tremendous changes in technology. Search and seizure law has faced an as it is used in the fourth amendment. The traditional approach has suggested that the term implies "a prying into hidden places for that which is concealed" and that the object searched for has been hidden or intentionally put out of the way. People v. Smith, 315 Ill. App. 671, 671, 43 N.E.2d 420, 420 (1942).

Approximately 60 years ago, the Supreme Court expressed the opinion that for there to be a fourth amendment search there must have been a "physical intrusion or trespass" by the police. See Olmstead v. United States, 277 U.S. 438 (1928) (held that wiretapping was not a search within the meaning of the fourth amendment because a telephone conversation was not a person, house, paper, or effect protected by the amendment), overruled, Katz v. United States, 389 U.S. 352 (1967). Several years later, the Court acknowledged that the scope of the fourth amendment could not turn upon the presence or absence of a physical intrusion into any given closure. See Katz, 389 U.S. at 353 (held that the government's act of electronically listening to and recording the defendant's words was an unconstitutional search despite the fact that the wiretap did not penetrate the wall of the telephone booth). This shifting of the Court's method of analysis for determining whether an unconstitutional search has taken place has prompted one scholar to state that "a fourth amendment search is one that intrudes upon security and security has been interpreted in relation to the modifying phrase 'in their persons, houses, papers and effects.'" Kitch, Katz v. United States: The Limits of the Fourth Amendment, 133 Sup. Ct. Rev. 133, 134 (1968) (quoting U.S. CONST. amend. IV). This reinterpretation of the fourth amendment suggests that a government agent's effort to obtain information will fall within the scope of the fourth amendment if it intrudes upon a citizen's security. Id. For an in-depth analysis of the developing fourth amendment scope of protection, see infra notes 15-53 and accompanying text.

3. Unlike the word "search," the definition of the word "seizure" in the fourth amendment sense generally has not been a source of difficulty. See 1 W. LA FAVE, supra note 1, § 2.1. Generally, a seizure is an act of physically taking and removing tangible personal property. See Hale v. Henke, 201 U.S. 43, 77 (1905) (the substance of the seizure is the compulsory production of private papers). In Maryland v. Macon, 472 U.S. 463 (1985), the Court stated that a seizure occurs when an individual's possessory interest in a particular item is "meaningfully interfered" with. Id. at 469 (quoting United States v. Jacobson, 466 U.S. 109, 113 (1984)). Although the Supreme Court has waivered on the issue, the Court has assumed that a police seizure of intangibles would violate the fourth amendment. See Berger v. New York, 388 U.S. 41, 51 (1967) (held that eavesdropping for a two month period is the equivalent of a series of intrusions, searches, and seizures). Although the Court has shifted its fourth amendment analysis from a focus on constitutionally protected areas, to the privacy interest of the individual, it is still important to address the issue of whether a particular police activity is a "search" or a "seizure" in light of modern day technology.

4. See Kroll, Can the Fourth Amendment Go High Tech?, 73 A.B.A. J. 70 (1987) (suggests that, had the sponsors of the fourth amendment foreseen the multitude of means by which today's government could invisibly and silently intrude upon an individual's life, there may have been a footnote or two to the Bill of Rights). For a look at a few of the situations in which the Court has had to interpret the fourth amendment with little historical guidance, see generally United States v. Knotts, 460 U.S. 276, 285 (1983) (use of miniature radio transmitters in police surveillance does not violate any legitimate expectation of privacy unless used to track movements inside a home); Smith v. Maryland, 442 U.S. 735, 741-46 (1979) (use of a mechanical device to record phone numbers dialed, or a "pen register", is not a fourth amendment activity); United States v. Miller, 425 U.S. 435, 443 (1976) (individual's bank records not protected by the fourth amendment because such information was voluntarily conveyed to the bank and thus there is no reasonable expectation of privacy); Goldman v. United States, 316 U.S. 129, 134 (1941) (warrantless use of detectaphone that allowed the recording of conversations from the other side of a partition was not a search because the mikes did not penetrate the wall); United States v. Lee, 274 U.S.
overwhelming array of fact settings which were undoubtedly beyond the imagination of the framers of the fourth amendment. As a re-

559, 563 (1927) (use of search light does not violate the fourth amendment); United States v. Torres, 751 F.2d 875, 885 (1984) (use of miniaturized television camera surveillance does not violate the fourth amendment); United States v. Burns, 624 F.2d 95, 101 (10th Cir.) (use of trained dogs to sniff for contraband is not a search), cert. denied, 449 U.S. 945 (1980); Rhode Island v. Delaurier, 489 A.2d 686, 694 (R.I. 1985) (warrantless police interception of a cordless telephone conversation did not violate any reasonable expectation of privacy).

Despite the technological changes that our country has experienced, some scholars maintain that the framers created a Constitution that they expected and hoped would last for centuries and that "what the framers did was to tell us that there must be a high value on privacy — the security of persons, places, effects — against arbitrary intrusion." Kroll, supra, at 74 (quoting Professor Herman Schwartz). Additionally, some judges maintain that the fourth amendment's language can easily be applied to 20th-century reality. Indeed, recently rejected Supreme Court nominee Robert Bork was quoted as saying:

Nobody foresaw electronic searches, but to the degree that the electronic search threatens the same kind of values that they wanted to protect, I've got no problem applying the fourth amendment to electronic searches. The fact that they didn't foresee technology change, that they didn't foresee all kinds of developments, doesn't mean that the values that they apply can't be applied to those new technologies, those new developments.

Id. at 72.

5. Kroll, supra note 4, at 70-71. As a result of the changes in technology, the Court's rulings on the subject of search and seizure law have been referred to as "curiouser and curiouser." Delaware v. Prouse, 440 U.S. 648, 664 (1979) (Rehnquist, J., dissenting). One writer has called the current state of the law concerning unreasonable searches and seizures a "shambles" and contends that it will remain so until the Court provides "a more concrete analysis of unreasonable searches [and seizures] and face[s] head-on its qualms concerning the exclusionary rule." Comment, Unreasonable Searches Under the Fourth Amendment: "The Rule Becomes 'Curiouser and Curiouser'", 15 LAND & WATER L. REV. 275, 298 (1980). Already the subject of wide-ranging debate and a flood of legal literature, this author expresses no judgement on the wisdom of the exclusionary rule as it is outside the scope of this comment and deserves separate treatment.

The Supreme Court's dilemma in recent search and seizure cases apparently originates in the inevitable conflict between two opposing goals - on the one hand, society's desire to apprehend and punish lawbreakers, and, on the other, every citizen's right to be free from government intrusion. Recent Developments, Search and Seizure: Viewing a Movie Constitutes a "Search," 48 TENN. L. REV. 765, 782 (1981). In Arkansas v. Sanders, 442 U.S. 753 (1979), Justice Blackmun's dissent acknowledged those concerns in noting that "the Court today . . . creates in my view only greater difficulties for law enforcement officers, for prosecutors, for those suspected of criminal activity, and, of course, for the courts themselves." Id. at 768 (Blackmun, J., dissenting). In Chapman v. United States, 365 U.S. 610 (1961), Justice Clark's dissent recognized the effect that the Court's lack of guidance had on search and seizure law. In fact, Justice Clark said:

Every moment of every day, somewhere in the United States, a law enforcement officer is faced with the problem of search and seizure. He is anxious to obey the rules that circumscribe his conduct in this field. It is the duty of the Court to lay down those rules with such clarity and understanding that he may be able to follow them.

Id. at 622 (Clark, J., dissenting) (emphasis added).

This goal seems no closer to being realized some 28 years later. Apparently, not all police officers or lower court judges are "anxious to obey" each ruling of the Supreme court. See J. Landynski, Search and Seizure, in The Rights of the Accused 92, 57 n.87 (S. Nagel ed. 1972) (one Boston judge is quoted as saying, "We don't
suit, courts have frequently had a difficult time deciding whether a
given activity constitutes a search within the meaning of the fourth
amendment.6

A particular source of fourth amendment difficulty is the use of
high-tech sensory enhancing devices.7 These devices aid or enhance
the law enforcement agent's natural senses in some way, and
thereby enable him to detect that which he would otherwise be un-
able to see, hear, or smell.8 One of the most common sensory enhanc-
ing devices is the ultraviolet lamp.9 The use of an ultraviolet lamp
involves a two-step procedure. First, the technique requires that an
object (often, but not always, drugs found in an inspection of incom-
ing international mail) be treated with a fluorescent powder or
coated with a fluorescent grease.10 Then, at some later time, after it
is thought that a particular individual has recently come in contact
with the treated object, the suspect's hands are held below an ultra-
violet lamp.11 If the suspect has come in contact with the object,
then the light will cause the suspect's hands to glow where traces of
the powder or grease are present.12 The federal appellate courts are
split on whether the use of an ultraviolet lamp constitutes a
search.13 This split is indicative of the difficulty courts have had

6. For a discussion of the difficulty the Court has experienced in attempting to
define the word "search," see supra note 2. For an explanation of those law enforce-
ment activities which have resulted in the greatest fourth amendment inconsistency,
see infra note 7 and accompanying text.

7. See 1 W. La Fave, supra note 1, § 2.2 (those devices which have resulted in
the greatest number of fourth amendment challenges include flashlights, binoculars,
telescopes, wiretapping equipment, and various other devices). See also cases cited
infra note 1 (discussion of other technological developments which have shaped
fourth amendment analysis).

8. See 1 W. La Fave, supra note 1, § 2.2 (extent to which a law enforcement
agent may use one or more of these devices is a key constitutional concern). Gener-
ally, when a law enforcement officer can detect something by using one or more of
his five senses while lawfully present at the location where those senses are used, that
detection will not constitute a "search" within the meaning of the fourth amendment.
Id.

9. See 1 W. La Fave, supra note 1, § 2.2 (modern-day law enforcement agents
commonly employ the assistance of an ultraviolet lamp). For a discussion of cases in
which law enforcement officials used an ultraviolet lamp, see infra notes 51-78 and
accompanying text.


11. Id.

12. Id.

13. Cf. id. at 182-183 (inspection of individual's hands, under an ultraviolet
lamp, is the kind of governmental intrusion into one's private domain that falls
within the scope of fourth amendment protection); People v. Santistevan, 715 P.2d
792, 795 (Colo.) ultraviolet light test constitutes search because person has reasona-
ble expectation that police officers will not subject his hands to an ultraviolet lamp to
discover incriminating evidence not otherwise observable), cert. denied, 479 U.S. 965
(1986); People v. Wesley, 80 Misc. 2d 581, 582, 363 N.Y.S. 2d 301, 302 (N.Y. City Ct.
In order to resolve this issue, this comment will first address the historical development of the fourth amendment's scope of protection. Second, this comment will analyze the conflicting decisions courts have issued in response to the question of whether the use of an ultraviolet light test constitutes a search. Third, this comment will discuss the arguments for and against each line of cases, and will conclude that the use of an ultraviolet lamp does constitute a search. Fourth, this comment will demonstrate how police officers can use the ultraviolet lamp in particular situations without violating the fourth amendment. Finally, this comment concludes that the Court could impose fourth amendment limits upon this practice without placing an unreasonable burden on law enforcement agents.

I. Historical Development of the Fourth Amendment's Scope of Protection

The United States Supreme Court has been continually confronted with unanticipated fact settings in which citizens claim that the government has violated their right to be free from unconstitutional governmental intrusion. Thus, the ultraviolet lamp is just another in a long list of high-tech sensory enhancing devices to test

1975) (use of ultraviolet light which revealed that an individual's hand contained paste placed on fire alarm handle constituted a search); but cf. United States v. Richardson 388 F.2d 842, 845 (6th Cir. 1968) (examination of defendant's hands under the ultraviolet light not a search within the meaning of the fourth amendment); Williams v. City of Lancaster, Pa., 639 F. Supp. 377, 381-82 (E.D. Pa. 1986) (examination of individual's hands under ultraviolet light permissible because it did not violate a privacy interest protected by fourth amendment); United States v. De Marsh, 360 F. Supp. 135, 137 (E.D. Wis. 1972) (ultraviolet light analysis of one's hands does not constitute a search subject to fourth amendment constraints); United States v. Mil len, 338 F. Supp. 747, 753 (E.D. Wis. 1972) (examination of a person's hands under a fluorescent light, while he is in custody, does not constitute a search subject to the fourth amendment); Commonwealth v. De Witt, 226 Pa. Super. 372, 376, 314 A.2d 27, 31 (1973) (shining ultraviolet light on defendants' hands invaded no reasonable expectation of privacy and was not a "search" violative of the fourth amendment even though search warrant did not specifically authorize officers to search any person).

14. See United States v. Baron, 860 F.2d 911, 914 n.1 (9th Cir. 1988) (although the Baron court did not issue an opinion on this particular question, the court noted that the issue is a difficult one on which the courts disagree). For a look at the inconsistency between the courts in regard to this issue, see cases cited supra note 13.

This is an issue different from that of whether a detention of the suspect in order to use the lamp was an illegal seizure. If the seizure were illegal, then the resulting evidence would be inadmissible regardless of whether what followed was a search. Davis v. Mississippi, 394 U.S. 721, 728 (1969).

15. See cases cited supra notes 4-9 and accompanying text for a discussion of those constitutional challenges unanticipated by the framers. One scholar has suggested that a government intrusion is a nonconsensual investigation which intrudes to some degree upon the security of the person investigated. See Kitch, supra note 2, at 134 (discusses what types of government intrusions will intrude upon a person's security).
the bounds of the fourth amendment.\textsuperscript{16} Therefore, in order to properly understand the analytical framework in which this issue arises, it is essential to trace the historical development of the fourth amendment's scope of protection.

A. The Fourth Amendment Prior to 1967: Trespass and Tangibles Only

In its early decisions, the United States Supreme Court interpreted the fourth amendment very narrowly.\textsuperscript{17} The Court consistently protected only those interests which fell within the amendment's literal wording: "persons, houses, papers, and effects . . . ."\textsuperscript{18} Two decisions, \textit{Hester v. United States}\textsuperscript{19} and \textit{Olmstead v. United States},\textsuperscript{20} warrant particular attention because they provide the foundation for original fourth amendment analysis.\textsuperscript{21}

In \textit{Hester}, the Court, reading the fourth amendment strictly, held that it did not protect against searches and seizures in open fields.\textsuperscript{22} Although the Court prior to \textit{Hester}\textsuperscript{23} had decided that in-
intrusions into protected areas would violate the fourth amendment, *Hester* was the foundation upon which the "constitutionally protected areas" approach arose. After *Hester*, the Court continued to find fourth amendment violations only when the area searched was held to be constitutionally protected.

In *Olmstead v. United States*,¹⁰ the Court held that a government officer's seizure of evidence obtained by wiretapping telephone lines connected to the defendant's office or home did not violate the fourth amendment.¹¹ In addition, the Court held that listening to telephone messages did not constitute a seizure within the meaning of the fourth amendment because such a violation must consist of a seizure of material things, not words.¹² The Court also held that because there was no physical invasion of the defendant's home, there

defendant's home because the protection which the fourth amendment afforded to constitutionally protected areas is not extended to open fields. *Id.* at 59. Subsequent decisions following the announcement of the open fields doctrine in *Hester* have made a distinction between open fields and the curtilage, or the area immediately surrounding a dwelling. *See*, e.g., United States v. Potts, 297 F.2d 68, 69 (6th Cir. 1961) (vicinity of house which was not used as dwelling was not within the curtilage); United States v. Vlahos, 19 F. Supp. 166, 170 (D. Or. 1937) (curtilage is a right which only goes with a dwelling house). This distinction is consistent with the fourth amendment's early emphasis on protecting the sanctity of the home. See cases cited *supra* note 18 for a discussion of early fourth amendment cases which emphasized the sanctity of the home.

23. Prior to *Hester*, the Court had decided that intrusions into other areas would violate the fourth amendment. *See* Ex parte *Jackson*, 96 U.S. 727 (1877) (contents of sealed letter protected by fourth amendment). Accord *Amos v. United States*, 255 U.S. 313 (1921) (a man's store falls within scope of fourth amendment); *Gouled v. United States*, 255 U.S. 298 (1921) (a man's office was protected area for fourth amendment purposes).


25. *See* Stoner v. *California*, 376 U.S. 483 (1964) (hotel room is protected area); *Rios v. United States*, 364 U.S. 253 (1960) (occupied cab is protected area); *Jones v. United States*, 362 U.S. 257 (1960) (fourth amendment search took place in apartment where defendant was guest); *but see* Harris v. *United States*, 390 U.S. 234 (1968) (fourth amendment protection not extended to occupied cab). The implication of *Hester* and its progeny is that a constitutionally protected area is generally enclosed, privately owned, and thought of as being under close personal dominion.


27. *Id.* at 466. The *Olmstead* approach resulted from the Court's view that its proper role was to merely construe the Constitution as the framers had intended. *Id.* Continuing, the Court stated that any decision to limit the use of such surveillance techniques would have to be made by the legislature. *Id.* at 465-66. It is interesting to note, however, that the Court did not pay heed to its own warning. Instead, the Court exercised its own judicial power in overruling *Olmstead*, and expanded the scope of the fourth amendment to include electronic eavesdropping. *Katz v. United States*, 389 U.S. 347 (1967). For an explanation of *Katz* and the effect that it has had on fourth amendment analysis, see *infra* notes 31-50 and accompanying text. The significance of this is that it confirms that the Court is capable of expanding the fourth amendment's scope of protection when it so chooses.

28. *Id.* at 464. The Court argued that there was no justification for extending the amendment beyond the usual meaning of "person, houses, papers, and effects" or for applying "searches and seizures" to eavesdropping on telephone conversations. *Id.* at 465 (construing U.S. CONST. amend. IV).
had not been a search within the meaning of the fourth amendment. As a result, *Olmstead* gave birth to the idea that a physical trespass was an essential element of finding an unreasonable search.

**B. Post-1967: The Fourth Amendment After Katz**

It was not until 1967, in *Katz v. United States*, that the Supreme Court explicitly struck down the restrictive property concepts in *Hester* and *Olmstead*. Having recognized the difficulty in the

29. *Id.* at 466. The Court emphasized that the tapping connections occurred on public property, and that there was no intrusion on the defendant's private property. *Id.* at 464-66.

30. *See* Kitch, *supra* note 2, at 137 and 152 (as a result of *Olmstead*, the Constitution was viewed as protecting individuals's right against trespassory searches); *Note, The Supreme Court 1967 Term, 82 Harv. L. Rev. 63, 187-96 (1968)* (from the language of *Olmstead* emerged a sort of "trespass and tangibles only" rule whereby the Constitution was interpreted as protecting individuals against trespassory searches of material objects only).

The Court's reasoning in *Hester* and *Olmstead* soon united to form a fourth amendment standard of analysis based on constitutionally protected areas. *See* Silverman v. United States, 365 U.S. 505, 512 (1961) (Court refined the *Olmstead* holding and concluded that the fourth amendment applies only when the police have intruded into a "constitutionally protected area"). Silverman involved the use of a "spike mike," an electronic listening device in the shape of a spike which is pushed through a party wall until it hits something solid. The effect of this is that the entire house becomes a "sounding board." *Id.* at 506-07. Although the spike penetrated the wall only slightly, the Court held that a search had occurred because the use of the device resulted in an unauthorized physical penetration. *Id.* at 512. This so-called "constitutionally protected areas" approach drew upon *Hester* to determine what places fell within the fourth amendment's scope of protection. *Id.* *Olmstead*'s addition to this approach was that it set forth guidelines for determining the way in which those places would be protected. *Id.*

Under this approach, the government's act would have to result in an actual physical invasion of an individual's property to violate the fourth amendment. *Id.* The trespass requirement, however, soon became recognized as a hindrance to fourth amendment analysis. *See* Silverman, 365 U.S. at 512 (although the Court found a constitutional violation by recognizing a physical entry of listening device through a party wall, the majority of Court denounced the trespass theory). Indeed, on one occasion, the Court was forced to stretch all bounds of reason in finding a technical trespass sufficient to uphold the constitutionality of a search. *See* Clinton v. Virginia, 377 U.S. 158 (1964) (per curiam) (trespass based on an impression comparable to that made by a thumbtack).


32. *Id.* at 351 (Court discarded notion that physical penetration of constitutionally protected area is essential to finding an unreasonable search and seizure). The Court in *Katz* expressly overruled *Olmstead* by holding that when the FBI eavesdropped on the defendant's telephone conversations through the use of electronic equipment, it violated the privacy on which the defendant relied while using the public telephone booth on which the electronic eavesdropping equipment was installed. *Id.* at 359.

Because the device was placed on the outside of the telephone booth and did not pierce the wall of the booth, Katz was forced to argue first that a telephone booth was a "constitutionally protected area," and second, that penetration into such an area was not necessary to establish a fourth amendment violation. *Id.* at 349-50. The Court, however, recognized the inadequacy of this logic to meet changing and intru-
application of the trespass theory, the *Katz* Court purported to abandon these outmoded principles of fourth amendment analysis.\(^{33}\) Noting that "the Fourth Amendment protects people, not places,"\(^{34}\) the *Katz* Court rejected prior fourth amendment analysis that focused on constitutionally protected areas and the necessity of finding a technical trespass.\(^{35}\) Departing from the trespass and protected areas tests, the *Katz* Court shifted its focus from technical property concepts to the personal rights of the individual.\(^{36}\)

Despite discarding the constitutionally protected areas approach, the Court's opinion failed to provide much guidance as to how similar claims would be handled in the future.\(^{37}\) What little guidance was offered, stemmed from the majority's statement that the government's surveillance technique violated the defendant's right to privacy which he had justifiably relied upon.\(^{38}\) As a result, the Court held that a search within the meaning of the fourth amendment had occurred.\(^{39}\) From this language it appeared that the Court was employing a two part test: first, it determined whether the government had violated the individual's privacy;\(^{40}\) and second,
it questioned whether the individual had justifiably relied upon his right of privacy.\textsuperscript{41}

Unfortunately, the Court did not define the term "privacy"\textsuperscript{42} and failed to explain the notion of "justifiable reliance."\textsuperscript{43} The extent of the Court's assistance in explaining its intent was the statement that "[w]hat a person knowingly exposes to the public, even in his own home or office, is not a subject of fourth amendment protection . . . . [However] what he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected."\textsuperscript{44}

Perhaps disenchanted with the majority's ambiguous opinion,\textsuperscript{45} Justice Harlan's concurrence suggested a different analysis.\textsuperscript{46} Justice Harlan indicated that a defendant should receive fourth amendment

There is no expressed right to privacy in the United States Constitution. Whalen v. Roe, 429 U.S. 589, 607-08 (1977) (Stewart, J., concurring). Nevertheless, the Court has long considered the right to privacy a fundamental right. Griswold, 381 U.S. at 479. This fundamental right to privacy extends to activities relating to marriage, procreation, contraception, family relationships, child rearing, and education. Roe v. Wade 410 U.S. 113, 152-53 (1973). The Constitution, however, only protects an individual's right of privacy against governmental action. See Blum v. Turetsky, 457 U.S. 991 (1982) (Medicaid patients failed to establish the requisite state action in nursing home's decision to discharge or transfer various patients and thus failed to prove nursing home had violated fourteenth amendment rights). Thus, as Justice Stewart stated in

\textit{Katz:} "[T]he protection of a person's general right to privacy — his right to be let alone by other people - is, like the protection of his property and of his very life, left largely to the law of the individual States." \textit{Katz}, 389 U.S. at 350-51.

Some scholars have defined the right to privacy as "the right to be let alone." Warren & Brandeis, \textit{The Right to Privacy}, 4 Harv. L. Rev. 193 (1890). On the other hand, many scholars have recognized that the concept of privacy is infected with ambiguities. See generally Prosser, \textit{Privacy}, 48 Calif. L. Rev. 383 (1960); Bloustein, \textit{Privacy as an Aspect of Human Dignity: An Answer to Dean Prosser}, 39 N.Y.U. L. Rev. 34 (1967). Nevertheless, the definition set forth by Warren and Brandeis will be a sufficient place for the reader to start examining an individual's right to privacy.


\textsuperscript{41} Katz, 389 U.S. at 353.

\textsuperscript{42} See Note, \textit{The Supreme Court 1967 Term}, supra note 30, at 192 (Katz will remain unclear until Court explains more fully what it means by "privacy"). For a discussion of the difficulty scholars encounter when attempting to define "privacy," see supra note 40.

\textsuperscript{43} See Kitch, supra note 2, at 137-40 (that part of the \textit{Katz} opinion dealing with the scope of the fourth amendment is ambiguous).

\textsuperscript{44} Katz, 389 U.S. at 351.

\textsuperscript{45} In this article, Kitch concluded that the presence of Justice Harlan's concurring opinion indicated that the Court had been intentionally vague in drafting the \textit{Katz} opinion. This he believed was to point the way to a new scope for the fourth amendment while allowing the Court room to retreat in the event it became necessary. Kitch, supra note 2, at 138.

\textsuperscript{46} Katz, 389 U.S. at 360-61.
protection only if the defendant had a "reasonable expectation of privacy."47 This required two things: first, the person must have exhibited an actual (subjective) expectation of privacy; and second, the expectation must be one that society is prepared to recognize as reasonable.48

Although Katz does not provide a ready answer to the issue of whether the use of an ultraviolet lamp constitutes a search, two principles of Katz deserve particular attention because they offer some assistance in analyzing this issue. First, the Katz Court indicated that the scope of fourth amendment protection should be weighed heavily in favor of people because the fourth amendment was intended to "protect[] people, not places."49 Second, the Katz Court held that it is not necessary to find a physical trespass in order to find a search violative of the fourth amendment.50

II. CIRCUIT COURT ANALYSIS OF THE ULTRAVIOLET LIGHT ISSUE

In recent years, rapid advances in technology have assisted law enforcement agents in crime detection.61 One unfortunate result of

47. Id. at 360. Many of the circuit court cases which purport to follow Katz are, in fact, following Justice Harlan’s “reasonable expectation of privacy” concurrence. See, e.g., United States v. Brock, 667 F.2d 1311, 1319 (9th Cir. 1982) (“It is Justice Harlan’s formulation of the privacy test that has been most frequently applied since Katz”), cert. denied, 103 S. Ct. 1271 (1983); United States v. Michael, 645 F.2d 252, 255-56 (5th Cir.) (en banc) (fourth amendment protects individuals from violations of their legitimate or reasonable expectation of privacy), cert. denied, 454 U.S. 950 (1981); United States v. Bailey, 628 F.2d 938, 940-41 (6th Cir. 1980) (“The concurring opinion of Justice Harlan in Katz summarized the two part standard the Court has used . . . .”). In fact, the misapplication does not stop at the circuit court level. See also Terry v. Ohio, 392 U.S. 1, 9 (1968) (majority quotes Justice Harlan’s reasonable expectation of privacy test as the holding of Katz).
48. Katz, 389 U.S. at 361 (Harlan, J., concurring). Justice Harlan still suggested, however, that the scope of fourth amendment protection cannot be discovered without reference to a place. Id. Indeed, the Court has continued to emphasize that fourth amendment analysis must turn on such factors as “our societal understanding that certain areas deserve the most scrupulous protection from government invasion.” Oliver v. United States, 446 U.S. 170, 178 (1984).

One problem that exists with Harlan’s opinion is that it failed to provide any guidance for determining whether society was prepared to recognize an individual’s subjective expectation as reasonable. See Note, Tracking Katz: Beepers, Privacy and the Fourth Amendment, 86 Yale L. J. 1461 1473-75 (1977) (emphasizes ambiguities in Justice Harlan’s concurrence in Katz). This failure is the equivalent to the majority’s failure to define “justifiably relied.” As a result of the Court’s failure to establish guidelines for these approaches, both opinions invite future courts to act arbitrarily in deciding what society would and would not recognize as reasonable. Amsterdam, supra note 33, at 375. In determining whether a particular expectation of privacy is reasonable, courts are generally free to balance the needs of law enforcement against what they see as the value of the privacy interest at stake. Id. Amsterdam, in his article, suggested that this approach would result in “a fourth amendment with all of the character and consistency of a Rorschach blot.” Id.
50. Id. at 353.
51. See supra notes 4-9 for a discussion of recent advances in technology and its
these advances is that courts, subsequent to the Supreme Court's decision in *Katz*, have had a difficult time deciding whether a given activity constitutes a search. Because the fourth amendment shield does not apply unless a particular law enforcement practice constitutes a search, the issue of whether a search has taken place is critical to the outcome of any case.

The ultraviolet lamp is one law enforcement device which has made fourth amendment analysis difficult. The federal circuit courts have split on the issue of whether the use of an ultraviolet lamp constitutes a search. This section of the comment will analyze the conflicting opinions courts have issued in response to this issue, and will discuss the arguments for and against each line of reasoning.

A. *Williams v. Lancaster: An Attempt to Keep Ultraviolet Light Tests in the Dark*

Although only a few cases have addressed the issue of whether
the use of an ultraviolet lamp constitutes a search, the majority of those decisions have concluded that this activity does not violate the fourth amendment.\textsuperscript{56} The reasoning in \textit{Williams v. Lancaster}\textsuperscript{57} is typical of the Fifth Circuit's view that this is not a search; therefore, an examination of \textit{Williams} is necessary in order to understand the reasoning underlying that line of cases.\textsuperscript{58} James Williams was arrested in the early morning of March 5, 1982, for allegedly tripping a false fire alarm that had been coated with fluorescent paste.\textsuperscript{59} Prior

\textsuperscript{56} For a brief synopsis of those cases which have addressed this issue and their holdings, see cases cited \textit{supra} note 13. For an explanation of each line of reasoning, see \textit{supra} notes 51-78 and accompanying text.

\textsuperscript{57} 639 F. Supp. 377 (E.D. Pa. 1986). The Superior Court of Pennsylvania also provided a thoughtful analysis of this issue in \textit{Commonwealth v. DeWitt}, 226 Pa. Super 372, 314 A.2d 27 (1973). In \textit{DeWitt}, customs officials found hashish in a table with a false top that was being shipped from abroad. \textit{Id.} at 373, 314 A.2d at 28. The customs officials proceeded to treat the hashish with a fluorescent grease, rewrapped the package, and sent it on to its destination. \textit{Id.} After the package had been delivered, the police along with the customs agents, entered the residence to execute a warrant that had been obtained for the narcotics. \textit{Id.} While executing the warrant, the agent passed an ultraviolet light over the defendant's hands and learned that he had handled the treated hashish. \textit{Id.} The police, however, did not find the hashish until a police dog was brought in to sniff it out six hours later. \textit{Id.} When the hashish was finally found, the defendant was arrested. \textit{Id.}

In response to the defendant's claim that this was an illegal search not authorized by the warrant, the court held that the test of what constitutes a fourth amendment search is whether the surveillance technique violated the defendant's right to privacy which he had justifiably relied upon. \textit{Id.} at 375, 314 A.2d at 30. The court then noted that to decide whether a fourth amendment violation had taken place, the court must look at all of the circumstances, especially the item observed and the type of activity by which the observation was made. \textit{Id.} at 375, 314 A.2d 30. Nevertheless, the court concluded that the defendant did not have a reasonable expectation of privacy as to the presence of foreign matter on his hands. \textit{Id.} Although the court recognized that the defendant may have possessed a reasonable expectation of privacy in the premises, the court stated that the police had a legitimate reason for invading the premises. The court then emphasized that the fourth amendment would not protect anything "a person knowingly exposes to the public." \textit{Id.} at 376, 314 A.2d at 31 (quoting \textit{Katz}, 389 U.S. at 351).

\textsuperscript{58} For a list of those cases which have held that an ultraviolet light does not constitute a search, see \textit{supra} note 13. The Sixth Circuit's opinion, in United States \textit{v. Richardson}, 388 F.2d 843 (6th Cir. 1968), is the oldest of those cases that have held that the use of an ultraviolet lamp is not a search. The \textit{Richardson} decision, however, failed to analyze this issue and thus offered no reason for its conclusion. \textit{Id.} at 845. In \textit{Richardson}, the court was confronted with a defendant who had been convicted of possessing stolen money. \textit{Id.} at 843. The Sixth Circuit affirmed the defendant's conviction and held that the examination of the defendant's hands under an ultraviolet light to determine if he had touched stolen bank bags which had been dusted with fluorescent powder was not a search within the meaning of the fourth amendment. \textit{Id.} at 845. Instead, the court chose to rest its holding, in the alternative, upon the defendant's consensual waiver of his fourth amendment rights. \textit{Id.} Emphasizing the defendant's consent, the court reasoned that the officers were under no duty to inform the defendant that the money bags had been dusted with fluorescent powder or what they expected the ultraviolet light test to reveal. \textit{Id.}

\textsuperscript{59} \textit{Williams}, 639 F. Supp. at 379. During the previous evening, Williams, his brother, and some male friends had visited several nightclubs as part of a bachelor celebration. \textit{Id.} at 378. At about 1:00 a.m. on March 5, 1982, a fire alarm was triggered at a parking garage in Lancaster. \textit{Id.} at 379. Just seconds after the alarm
to his arrest, police and fire officials placed Williams' hands under an ultraviolet light and the test revealed the presence of a fluorescent paste. Williams was then placed under arrest and, shortly thereafter, committed suicide in his holding cell. Williams' sister sued the City of Lancaster and the city's police department.

In response to the plaintiff's claim that the ultraviolet light test was an illegal search, the district court found that the examination of Williams' hands under the light was not a search because it did not violate a privacy interest within the scope of the fourth amendment. The court noted that physical evidence obtained from a person only violates a fourth amendment right when "the bodily seizure requires production of evidence below the body surface which is not subject to public view." The court recognized that the Supreme Court has held that forced invasions below the body's surface violate the fourth amendment; however, the court noted that the fourth amendment would not protect what "a person knowingly exposes to the public." As a result, the court held that Williams could not have had a reasonable expectation of privacy in the surface of his hands because they were exposed to the view of all around him.
Interestingly, the court acknowledged that the ultraviolet light revealed fluorescent traces invisible to the public; nevertheless, the court chose to emphasize the fact that the light did not penetrate the bodily surface.67

B. Kenaan v. United States: Bringing Ultraviolet Light Tests In From the Shadows

In United States v. Kenaan,68 the Federal Court of Appeals for the First Circuit adopted a position contrary to the district court's opinion in Williams. The Kenaan court's analysis is the foundation for those cases which have held that an ultraviolet light test is a fourth amendment search.69 In Kenaan, the First Circuit held that

67. Id.
68. 496 F.2d 181 (1st Cir. 1974). In Kenaan, customs agents discovered a packet full of cocaine inside of a parcel shipped from Peru and addressed to a person at the defendant's address. Kenaan, 496 F.2d at 182. The agents removed most of the cocaine and substituted a soap powder mixture. Id. The agents put this new mixture back into the packet and dusted it with fluorescent powder. Id. They then replaced the packet in the parcel, and sent it to the defendant's address. Id. When the parcel arrived at the defendant's address, the defendant agreed to receive the parcel although he stated that it was not addressed to him. Id. Instead, the defendant claimed that the addressee picked up his mail at the defendant's home periodically. Id.

After the parcel had been delivered, government agents searched the defendant's apartment pursuant to a warrant. Id. While executing the warrant, the agents found a small spoon with some residue of cocaine upon it; however, they did not find the parcel immediately. Id. When the parcel was discovered, it had been unwrapped and the cocaine - soap powder mixture had been removed. Id. The government agents then used an ultraviolet lamp to inspect the defendant's hands. Id. After the test revealed traces of the fluorescent powder, the defendant was arrested. Id. The court also addressed the government's argument that even if the fourth amendment were to apply, this search would have been justified as incidental to a lawful arrest. Id. at 183. The weakness in this argument was that the defendant had not been placed under arrest when the search was conducted. Id. at 182. The court recognized, however, that the Supreme Court has held that a personal search is justified as incidental to an arrest if the arrest is made immediately after the search and if at the time of the search there was probable cause to arrest. Id. at 183. See also Chimel v. California, 395 U.S. 752 (1969) (although holding that the warrantless search of the defendant's home could be constitutionally justified as incidental to his arrest, the Court provided a thoughtful analysis of this issue). Instead, the Kenaan court cautioned that these criteria must be strictly interpreted in order to avoid the possibility that the arrest is simply a pretext for the search. This begs the question, however, because it concerns itself with finding ways to justify a personal search without first addressing the issue at hand — that is, whether a given activity constitutes a search within the meaning of the fourth amendment.

For a discussion of how police officers could use the ultraviolet lamp in particular situations with violating the fourth amendment, see infra notes 134-145 and accompanying text.

69. Two other cases followed the Kenaan analysis in all material respects. See generally People v. Santistevan, 715 P.2d 792, 795 (Colo.) (ultraviolet light test constitutes a search because a person has a reasonable expectation that police officers will not subject his hands to an ultraviolet lamp to discover incriminating evidence not otherwise observable), cert. denied, 479 U.S. 965 (1986); People v. Wesley, 80 Misc. 2d 581, 582, 363 N.Y.S. 2d 301, 302 (N.Y. City Ct. 1975) (use of ultraviolet light which revealed that an individual's hand contained a type of paste placed on fire
an inspection of a person's hands is the kind of governmental intrusion into one's private domain that warrants fourth amendment protection, and thus held that the ultraviolet light test was a search.\textsuperscript{70} The court reasoned that if the scope of fourth amendment protection extends to fingerprinting,\textsuperscript{71} and to a search of one's clothing or personal effects,\textsuperscript{72} it must also include a detailed inspection of one's skin with an ultraviolet lamp.\textsuperscript{73} The court was not persuaded by the government's argument that the ultraviolet light test protected the defendant's privacy because it eliminated the necessity of a physical search.\textsuperscript{74} Instead, the court noted that the fourth amendment would be useless if, under the authority of a warrant to search the premises, government agents could use sensitive instruments to scan an individual's body for minute or intimate objects.\textsuperscript{75}

The Colorado Supreme Court adopted this reasoning in \textit{People v. Santistevan}.\textsuperscript{76} In \textit{Santistevan}, the court held that the examination of the defendant's hands with an ultraviolet light went beyond the type of exposure which persons are subjected to each day.\textsuperscript{77} In fact, the \textit{Santistevan} court cautioned that the search of physical traits may go beyond that which is constantly exposed to the public, and result in the type of "severe, though brief, intrusion upon personal security that is subject to constitutional scrutiny."\textsuperscript{78}

\section*{C. Ultraviolet Light Tests Are Searches Within The Fourth Amendment Scope of Protection}

In addressing the issue of whether the use of an ultraviolet lamp constitutes a search, both lines of cases correctly focused their attention on \textit{Katz}.\textsuperscript{79} The disparity in the decisions,\textsuperscript{80} however, stems from

\begin{itemize}
\item alarm handle constituted a search).
\item \textit{Kenaan}, 496 F.2d at 182.
\item \textit{Id.} Relying upon \textit{Davis v. Mississippi}, 394 U.S. 721 (1969), the court compared the ultraviolet lamp to a fingerprinting device. \textit{Id}. The \textit{Kenaan} court held that an ultraviolet light test was no less intrusive than the fingerprinting device and therefore, both should fall within the fourth amendment scope of protection. \textit{Id}.\textsuperscript{71}
\item \textit{Kenaan}, 496 F.2d at 182. The \textit{Kenaan} court compared the ultraviolet light test to the search of clothing and personal effects. \textit{See United States v. Micheli}, 487 F.2d 429 (1st Cir. 1973) (although search of a personal effect not currently worn may fall within scope of fourth amendment, court held that search of defendant's briefcase was within scope of the warrant since defendant, as co-owner of described premises, was not a mere visitor).\textsuperscript{72}
\item \textit{Kenaan}, 496 F.2d at 182.
\item \textit{Id.} at 183.
\item \textit{Id.}\textsuperscript{73}
\item \textit{See People v. Santistevan}, 715 P.2d 792 (Colo.) (police officer's use of an ultraviolet light test violated the fourth amendment), \textit{cert. denied}, 479 U.S. 965 (1986).\textsuperscript{74}
\item \textit{Id.} at 794-95.
\item \textit{Id.} at 794 (quoting \textit{Cupp v. Murphy}, 412 U.S. 291, 296 (1973)).\textsuperscript{75}
\item For a discussion of the impact that \textit{Katz} had on fourth amendment analysis, see \textit{supra} notes 31-50 and accompanying text. \textit{See generally L. Hall, Y. Kamisar,
the inconsistent application of the reasonable expectation of privacy test enunciated in Justice Harlan's concurrence in Katz. This conflict is not surprising due to the ambiguous nature of the Katz decision. As a result of the inherent ambiguities in Katz, there is no easy way to determine whether Kenaan or Williams is the "correct" application of Katz. This section of the comment, however, will illustrate that the First Circuit's reasoning in Kenaan is the most consistent with the rationale of Katz.

In order to determine whether the use of an ultraviolet lamp is a search, one must first look to the privacy interest set forth in Katz. The test that emerged from Katz for determining the existence of a search was whether the intrusion violated an individual's reasonable expectation of privacy. Under the Katz reasonable expectation of privacy test, the Court must consider the place where the observed object is located because this bears directly upon whether the person's expectation of privacy was reasonable. 

W. La Fave & J. Israel, Modern Criminal Procedure 244-252 (6th ed. 1986) (Katz reasonable expectation of privacy test is important standard of criminal procedure).

80. For a look at the split of opinion as to whether the use of an ultraviolet lamp constitutes a search, see cases cited supra note 13.

81. Katz, 389 U.S. at 360. Although the reasonable expectation of privacy test evolved from Justice Harlan's concurrence, many courts, purporting to follow Katz, have applied it as the majority's holding. For a list of those courts which have mistakenly labeled Justice Harlan's test as the holding in Katz, see cases cited supra note 47.

82. See Amsterdam, supra note 33, at 385 ("the Katz decision was written to resist captivation in any formula"). For a discussion of Amsterdam's view on how the reasonable expectation of privacy test would influence fourth amendment analysis, see supra note 48 and accompanying text.

83. Kitch, supra note 2, at 138. Kitch, in his article, suggested that the presence of Justice Harlan's concurrence indicated that the Katz Court had been intentionally vague in drafting its opinion. Id.

84. Because the question of whether Kenaan or Williams is the correct application of Katz is not easily answered, this author suggests that this issue is one that the Supreme Court must address. It is interesting to note, however, that the Court denied certiorari in the Santistevan case. People v. Santistevan, 715 P.2d 792, cert. denied, 479 U.S. 965 (1986). Apparently, the Court is not aware of the split in opinion as to this issue or they are most comfortable not having to address this problem.

85. See People v. Santistevan, 715 P.2d 792, 795 (Colo.) (whether use of ultraviolet lamp constitutes search can be determined only by asking whether the person has a reasonable expectation of privacy as to surface of his hands), cert. denied, 479 U.S. 965 (1986). Accord Williams v. Lancaster, 639 F. Supp. 377, 381-82 (E.D. Pa. 1986) (examination of individual's hands under ultraviolet light was permissible because it did not violate privacy interest protected by fourth amendment). Although both line of cases correctly focused upon Katz in addressing this issue, the similarity ends there as they reached contrary results.

86. Katz, 389 U.S. at 360 (Harlan, J., concurring); Terry v. Ohio, 392 U.S. 1, 9 (1968).

87. A typical example is State v. Abislaiman, 437 So. 2d 181 (Fla. App. 1983). In Abislaiman, hospital security personnel used a zoom lens on a surveillance camera in the emergency room parking lot to see inside a car which had been parked there for about 5 minutes during early morning. Id. at 83. The camera revealed that the defendant was carrying a gun. Id. The court held that the defendant had no reasonable
fore, in addressing this problem the Court must initially emphasize that the place at which the fluorescent substance is observed is an individual's hands.

An observation by a lawfully positioned officer using his natural senses of sight, smell, and hearing does not involve a search. The rationale underlying this principle is that a person can have no reasonable expectation of privacy in something he knowingly exposes to public view. A difficult situation arises, however, when the officer employs a sensory enhancing device, such as an ultraviolet lamp, that enables him to detect that which he would otherwise be unable to see. In *Williams*, the court held that the use of an ultraviolet lamp did not constitute a search because the fourth amendment provides no protection for what a person knowingly exposes to the public. The *Williams* court was incorrect in applying this rationale to the ultraviolet light setting because the fluorescent substance on a suspect's hands was not "exposed" to public view.

expectation of privacy from such an intrusion, given the fact that there was traffic in the lot at all hours and the hospital could be expected to employ security measures there. *Id.*

88. See *Coolidge v. New Hampshire*, 403 U.S. 443 (1971) (Court found that seizure of evidence which has not been particularly described in warrant and which is inadvertently spotted in course of constitutional search already in progress is justified). The plain view doctrine discussed in *Coolidge* was intended to provide a basis for making a seizure without a warrant. See 1 W. LaFave, *supra* note 1, § 2.2 (Professor LaFave pointed out that plain view problem may arise where police officer discovers an object without prior physical intrusion). The issue of whether the use of an ultraviolet lamp constitutes a search is exactly the type of plain view problem that Professor LaFave anticipated. This concern stems from the fact that simply because there is no plain view in the *Coolidge* sense, does not mean that a search has not taken place. *Id.*

89. *Katz*, 389 U.S. at 351.

90. For a discussion of the effect that sensory enhancing devices have had on fourth amendment analysis, see *supra* notes 4-14 and accompanying text.


92. The word "exposed" can be defined as "open to view." WEBSTER'S THIRD NEW INTERNATIONAL DITIONARY (3d ed. 1961). The *Williams* court incorrectly applied the word "exposed" in its declaration that the fluorescent substance on Williams' hands was exposed to public view. It is ironic that the *Williams* court relied on the rationale that a person cannot have a reasonable expectation of privacy in something that he knowingly exposes to the public and yet, the court clearly stated that the ultraviolet light revealed fluorescent traces invisible to the public. *Williams*, 639 F. Supp. at 382 (emphasis added). The *Williams* court, however, may have attempted to construct a favorable analogy between the use of an ultraviolet light and a flashlight or other means of illumination. Indeed, recent cases have held that the use of artificial illumination by a lawfully positioned officer is not a search. See United States v. Hernandez, 715 F.2d 548 (11th Cir. 1983) (the defendants had no reasonable expectation of privacy in marijuana they carried aboard the deck of their boat even though they were travelling in the dark); United States v. Wright, 449 F.2d 1355 (D.C. Cir. 1971) (officer's use of artificial illumination does not constitute a search).

This analogy lacks persuasiveness, however, because the use of artificial illumination has been permitted most often when a police officer uses it to see objects inside a car rather than on a person. See, e.g., United States v. Lara, 517 F.2d 209 (5th Cir.)
The Williams and DeWitt courts attempted to compare the observation of the fluorescent substance to the observation of other "exposed" physical characteristics, such as fingerprints, one's voice, and one's hair. Although the DeWitt court acknowledged that the fluorescent grease was not visible to the naked eye, the

1975) (officer's conduct in illuminating interior of automobile does not constitute a search). The typical justification given for this conclusion is that the owner of a vehicle being operated on a public road does not have a reasonable expectation that a common device, such as a flashlight, would not be used during the nighttime to see that which would be visible without such illumination during daylight. See United States v. Booker, 461 F.2d 990 (6th Cir. 1972) (since it would not constitute a search for the officer to observe objects in plain view in the care in daylight, is not a search for him to flash a light in it during the night); United States v. Marshall, 422 F.2d 185 (5th Cir. 1970) (plain view rule does not go into hibernation at sunset).

The analogy between the use of an ultraviolet light and a flashlight must fail in light of the Supreme Court's holding that a diminished expectation of privacy surrounds the automobile because its occupants and contents are in plain view when traveling upon public roadways. See United States v. Chadwick, 433 U.S. 1 (1977) (because its occupants and contents are in plain view when traveling public thoroughfares, an individual does not have a reasonable expectation of privacy as to the things in his car).

93. See Williams, 639 F. Supp. at 382 (Williams had no reasonable expectation of privacy in the surface of his hands because, like one's hair, they were exposed to the view of everyone around him); DeWitt, 226 Pa. Super. at 375, 314 A.2d at 30 (fluorescent grease on the defendant's hands is comparable to fingerprint or one's voice).

94. Davis v. Mississippi, 394 U.S. 721 (1969). In Davis, the Court held that the taking of fingerprints of arrested persons violated the fourth amendment. Id. at 728. Although the court stated that "fingerprinting involves none of the probing into an individual's private life and thoughts that marks an interrogation or search," the Court was forced to hold the fingerprints inadmissible because the initial dragnet detentions violated the fourth amendment. Id. at 727.

The problem with the DeWitt court's reliance on the Davis Court's reasoning is twofold. First, the Davis Court made this characterization for the purpose of suggesting that fingerprinting was a lesser intrusion which would justify a brief detention without probable cause. As a result, it is questionable whether the issue of fingerprinting is as well established as the Davis Court suggested. See Paulson v. Florida, 380 F. Supp. 186 (S.D. Fla. 1973) (taking of fingerprints did not violate fourth amendment); but see, State v. Inman, 301 A.2d 348 (Me. 1973) (taking of fingerprints violates fourth amendment). Second, the analogy between fingerprinting and the use of an ultraviolet lamp, as pointed out by Professor LaFave, is not as close as it initially appears. See 1 W. LaFave, supra note 1, § 2.2. In fact, LaFave suggested that the act of taking fingerprints is no search because, "except for the rare recluse who chooses to live his life in complete solitude," we constantly leave our fingerprints in public places. Id. (quoting United States v. Doe, 457 F.2d 895, 898 (2d Cir. 1972)). On the other hand, one's frequent appearances in public do not reveal whether he has recently handled contraband in the privacy of his own home. Id.

95. United States v. Dionisio, 410 U.S. 1, 14 (1973) (Court held that because one's voice has previously been exposed to the public, it is not a search to require one to speak again on a particular occasion).


97. DeWitt, 226 Pa. Superior at 376, 314 A.2d at 31. Because the DeWitt court acknowledge that the fluorescent grease could not be detected with the naked eye, their comparison between the surface of one's hands and other physical characteristics which are knowingly exposed to the public appears questionable. For a discussion
court noted that neither may a fingerprint be examined until ink has been applied. Both the Kenaan and Santistevan courts, however, stated that this comparison was incorrect because the fluorescent substance on a suspect's hand is not exposed like those other physical characteristics.

The analogy between the fluorescent substance and the invisible fingerprint fails because the act of taking fingerprints cannot constitute a search. Such an act is not a search because "except for the rare recluse who chooses to live his life in complete solitude," we constantly leave our fingerprints in public places. On the other hand, one's frequent appearances in public do not reveal whether he has recently handled contraband in the privacy of his own home. As a result, the Santistevan court correctly held that the use of an ultraviolet lamp was a search because the examination of one's hands went beyond mere physical characteristics. The Santistevan court reasoned that an ultraviolet light test stretches "beyond the type of exposure to which, in the absence of government interference, persons are subjected each day."

Cupp v. Murphy supports the Kenaan and Santistevan courts' analysis and their conclusions. In Cupp, the defendant, of the difficulty that the Williams court experienced in applying this so-called "exposure rationale" to the ultraviolet light issue, see supra note 92. Id. The court's comparison of ultraviolet lamps and fingerprinting devices is faulty for two reasons. For an explanation of the problems in comparing the ultraviolet lamp to a fingerprinting device, see supra note 94.

See Kenaan, 496 F.2d at 183 (fourth amendment would be useless if government agents could use sensitive instruments to scan an individual's body for intimate objects); Santistevan, 715 P.2d at 794 (examination of defendant's hands with ultraviolet light went beyond mere physical characteristics which are exposed to the public). For a detailed explanation of the facts in Kenaan and Santistevan, see supra notes 68-78 and accompanying text.

Id. at 794-95.

102. Santistevan, 715 P.2d at 794. See supra notes 76-78 for an explanation of the facts in Santistevan.

103. See 1 W. LA FAVE, supra note 1, § 2.2 (analogizes the use of an ultraviolet lamp to the police conduct in Cupp). For a detailed explanation of the facts and the Court's holding in Cupp, see infra notes 108-114 and accompanying text.

Another favorable comparison can be drawn between the use of an ultraviolet lamp and the gun residue test used in State v. Howell, 524 S.W.2d 11 (Mo. 1975). In Howell, the defendant was arrested and then had his hands swabbed with a solution which allowed the police to determine that he had recently fired a gun. Id. at 14. Although the Howell court concluded that the results of the gun residue test were inadmissible because the defendant had been arrested illegally, the court held that the performance of the test was a search. Id. at 16-17. See also United States v. Haynie, 837 F.2d 227 (4th Cir. 1980) (examination of objects by means of X-ray scanner is search within meaning of fourth amendment).
Murphy, voluntarily appeared at a police station in connection with a police investigation of the strangling of his wife.\textsuperscript{106} The police suspected that the defendant had dried blood on his finger and thus, took scrapings from his fingernails.\textsuperscript{107} An analysis of these scrapings revealed traces of skin, blood cells, and fabric from his wife's nightgown.\textsuperscript{108} Although the Supreme Court eventually decided that the taking of the scrapings was permissible under a recognized exception to the warrant requirement,\textsuperscript{109} it held that the examination of the defendant's fingernails was a search because it went beyond "mere physical characteristics . . . constantly exposed to the public."\textsuperscript{110} Although one may attempt to discredit \emph{Cupp} because it involves a physical touching, this is not persuasive because the Court's decision emphasized the reasonable expectation of privacy test set forth in \emph{Katz}.\textsuperscript{111} As a result, \emph{Cupp} is significant because it recognizes that a person has a reasonable expectation of privacy with respect to evidence on his hands when its incriminating character is not evident to the naked eye and it must be analyzed to be of evidentiary value.\textsuperscript{112}

An additional problem with the \emph{Williams} and \emph{DeWitt} courts' analysis of the ultraviolet light issue is their reliance on the premise that the obtaining of physical evidence from a person violates the fourth amendment only when the examination requires the production of evidence below the bodily surface.\textsuperscript{113} This analysis of the fourth amendment is incorrect for three reasons.

First, the \emph{Williams} and \emph{DeWitt} courts reliance on this premise is in direct conflict with a fundamental principle of \emph{Katz}.\textsuperscript{114} In \emph{Katz}, the Supreme Court emphasized that the finding of a search was no

\begin{itemize}
\item \textsuperscript{106} \emph{Cupp}, 412 U.S. at 292.
\item \textsuperscript{107} \textit{Id.} Although the defendant voluntarily went to the police station for questioning, he refused to allow the police to take scrapings of his fingernails. \textit{Id.} As a result, the police were forced to take the scrapings under protest and without a warrant. \textit{Id.}
\item \textsuperscript{108} \textit{Id.}
\item \textsuperscript{109} \textit{Id.} at 295. The \emph{Cupp} Court held that this search was permissible because it was incidental to a valid arrest. \textit{Id.} For a discussion of the few established exceptions to the warrant requirement, see infra note 130 and accompanying text.
\item \textsuperscript{110} \emph{Cupp}, 412 U.S. at 295.
\item \textsuperscript{111} See 1 W. LaFave, supra note 1, § 2.2. If the defendant in \emph{Cupp} had a reasonable expectation of privacy with respect to his fingernail scrapings, it is logical to believe that one would have a similar expectation with respect to an invisible substance on his hands.
\item \textsuperscript{112} \textit{Id.}
\item \textsuperscript{113} See \emph{Williams}, 639 F. Supp. at 382 (fourth amendment is violated only if invasion goes below the body's surface); \emph{DeWitt}, 226 Pa. Super. at 375-76, 314 A.2d at 30-31 (because fluorescent substance on defendant's hands was exposed, rather than covered by the skin, fourth amendment search did not take place).
\item \textsuperscript{114} \emph{Katz}, 389 U.S. at 353 (\emph{Katz} Court did away with notion that it is necessary to find physical penetration in order find search that violates the fourth amendment).
\end{itemize}
longer contingent upon first finding a physical trespass.\textsuperscript{118} Because the Court in \textit{Katz} found a fourth amendment search without a physical intrusion of the telephone booth,\textsuperscript{116} it is logical to assume that one would not have to physically penetrate a person's skin to establish a search. After all, an individual's body certainly warrants greater protection than the wall of a phone booth. Thus, an examination of a person's skin does not have to go below the surface of the skin to constitute a search.

Second, both courts fail to give enough weight to the fact that the use of an ultraviolet lamp is an examination of a person. In addition, both courts, unlike \textit{Katz},\textsuperscript{117} fail to recognize that the fourth amendment's scope of protection should be weighed heavily in favor of people because that is who the fourth amendment was intended to protect.\textsuperscript{118} As a result, the Court should conclude that the use of an ultraviolet lamp does constitute a search. This conclusion would remain entirely consistent with the Court's shift in fourth amendment analysis from technical property concepts to the personal rights of the individual.\textsuperscript{119}

Third, the \textit{Williams} and \textit{DeWitt} courts' analysis of this issue is inconsistent with the spirit of those fourth amendment cases which involve some sort of personal search, regardless of degree.\textsuperscript{120} In

\begin{enumerate}
\item[115.] \textit{Id}.
\item[116.] For a discussion of the facts in \textit{Katz} and its holding, see supra notes 31-36 and accompanying text.
\item[117.] 389 U.S. at 351. For an explanation of \textit{Katz} and the impact that it had on fourth amendment analysis, see supra note 32-51 and accompanying text.
\item[118.] \textit{See id.} (fourth amendment protects people). Despite the fact that the \textit{Katz} Court stated that the primary purpose behind the fourth amendment is to protect people, the \textit{Williams} and \textit{DeWitt} courts interpret the fourth amendment scope of protection very narrowly.
\item[119.] \textit{For an explanation of \textit{Katz} and its effect upon fourth amendment analysis, see supra notes 31-50 and accompanying text.}
\item[120.] Personal search cases have continually expressed a broad concern for human dignity. \textit{See} Schmerber v. California, 384 U.S. 757 (1966) (agreeing with Court's statement in \textit{Rochin} v. California, 342 U.S. 165, 174 (1952) that the "integrity of an individual's person is a cherished value in our society"). The Supreme Court first addressed bodily intrusion in search of evidence in \textit{Rochin}. In \textit{Rochin}, a violent struggle ensued as the police tried unsuccessfully to retrieve two capsules that Rochin swallowed quickly after seeing the police. \textit{Id} at 166. Rochin was then taken to a hospital where a doctor forced an emetic through a tube into Rochin's stomach. \textit{Id}. Rochin then vomited up the capsules which contained morphine. \textit{Id}. Rochin was convicted of unlawfully possessing morphine and the chief evidence against him was the two capsules. \textit{Id}. Although \textit{Rochin} has often been read as a fifth amendment decision prohibiting self-incrimination, the Court also focused on the behavior of the police. \textit{Id}. at 174. As a result, the Court found that the police officer's conduct violated the federal constitution because it offended human dignity. \textit{Id}. Although \textit{Rochin} undoubtedly represents an extreme, its rationale has been advanced in many cases involving personal searches, regardless of degree. \textit{See generally} Bouse v. Bussey, 573 F.2d 548 (9th Cir. 1977) (warrant required to pluck pubic hairs); United States v. Bridges, 599 F.2d 179 (7th Cir.) (warrant required to swab hands with a chemical substance), \textit{cert. denied}, 419 U.S. 1010 (1974); Burnett v. Municipal-
Schmerber v. California,\textsuperscript{121} for example, the Supreme Court set forth two conditions for performing any type of personal search. First, because of the interests in human dignity and privacy which the fourth amendment protects, the Court required a "clear indication" that evidence would be found;\textsuperscript{122} and second, the government must obtain a search warrant whenever practicable.\textsuperscript{123} Nevertheless, the Williams and DeWitt courts ignored those bodily search cases which emphasized the sanctity of the body,\textsuperscript{124} and failed to address those cases in which a search was found even though the person's skin was never pierced.\textsuperscript{125}

On the other hand, the Kenaan and Santistevan courts not only utilized the Katz test, but more importantly, came to conclusions consistent with the spirit of Katz.\textsuperscript{126} In fact, the Santistevan court, citing Cupp favorably, cautioned against those "severe, though brief, intrusions upon cherished personal security" that violate an individual's constitutional rights.\textsuperscript{127} As a result of their concern over personal security, the Santistevan court held that the defendant had a reasonable expectation of privacy in the surface of his hands because the ultraviolet light test was the type of government interference that went beyond that which people are subjected to every day.\textsuperscript{128}
III. USING THE ULTRAVIOLET LAMP WITHOUT VIOLATING THE FOURTH AMENDMENT

The Supreme Court should declare that the use of an ultraviolet lamp is a search and thereby impose some fourth amendment limits upon this practice. Such a holding would prevent the uncontrolled use of the lamp without creating an unreasonable burden for law enforcement agents. In fact, law enforcement officials could utilize the ultraviolet light test in particular situations without violating the fourth amendment because in certain well-recognized and limited circumstances, a warrantless search may be permissible. The availability of potential exceptions, however, should not draw attention away from the more significant issue of whether the particular law enforcement technique is a search. After all, if the Supreme Court were to finally decide that the use of an ultraviolet lamp does not constitute a search, the availability of these exceptions would be irrelevant because the police could use the lamp as freely as they choose.

Presuming then that the Court decides that the use of an ultraviolet lamp constitutes a search within the meaning of the fourth amendment, one must address the issue of whether this decision would unreasonably burden law enforcement officials. Although a search, police officers could use the ultraviolet lamp in two limited situations without a warrant.

129. See 1 W. La Fave, supra note 1, § 2.2 (suggests that Court could label the use of ultraviolet lamp a search without dealing a deathblow to law enforcement officials). Professor La Fave noted that imposing some fourth amendment limits upon the use of an ultraviolet lamp is entirely different than requiring the police to provide justification for turning on a flashlight. Id. The distinction is that the ultraviolet lamp, unlike a flashlight, does not need to be used on a random basis. Id. Indeed, as the Williams and Kenaan cases have illustrated, the use of the lamp arises only when suspicion has focused upon one person or a small group of individuals.

Because an individual's privacy from governmental intrusion is involved, the balancing of competing interests requires that the fourth amendment be interpreted reasonably. Dunaway v. New York, 442 U.S. 200, 219 (1979) (White, J., concurring). For a discussion of the two opposing goals inherent in search and seizure cases, see supra note 5.

130. See D.C.C.A. Project, Search Warrants, 27 How. L. J. 705 (1984) (project provides survey of criminal procedure and traces origin of various procedures). The Supreme Court, over the past several decades, has created six exceptions to the warrant requirement. They are: (1) searches incident to a valid arrest; (2) automobile searches; (3) hot pursuit searches; (4) searches accompanied by consent; (5) stop and frisk searches; and (6) plain view searches. See C. Whitebread, Criminal Procedure — An Analysis of Constitutional Cases and Concepts § 403 (c), at 108 (1980).

131. For a discussion of the impact that a court's holding that a particular law enforcement technique is not a search has on the availability of that technique, see supra note 2 and accompanying text.

132. For an explanation of the few exceptions in which police officers can conduct warrantless searches without violating the fourth amendment, see supra note 130.
The first situation, as Kenaan illustrates, arises when a suspect or group of suspects is first arrested and then the lamp is used as a legitimate search incidental to a valid arrest. This is significant because the ultraviolet light test is used most often where there has been a monitored delivery of a package containing narcotics to a certain address and the police do not know which occupant opened the package. As a result, the test allows the police to determine the guilty party from a small group of suspects. Because the police know the destination of the package carrying the narcotics, it is not an unreasonable burden for the police officers to conduct the test only after a valid arrest.

United States v. Richardson illustrates the second situation in which police officers could use the ultraviolet lamp without a search warrant. This second situation arises when an individual waives his fourth amendment rights and consents to the search. The Richardson case indicated, however, that the voluntariness of the consent is often critical to the successful use of this exception. This exception is applicable because the ultraviolet light test is used most often on an identifiable group of suspects capable of consenting to the test. As a result, it would not be an unreasonable burden for police officers first to attempt to obtain a voluntary consent

133. For a further explanation of the facts in Kenaan and the court's holding, see supra notes 68-75 and accompanying text.

134. Kenaan, 496 F.2d at 182. In Kenaan, the court, in remanding the case, noted that "the district court will have further opportunity to decide whether there was probable cause for arrest before the inspection of appellant's hands." Id. at 183.

135. Over half of all of the cases to address the ultraviolet lamp issue have involved a controlled delivery of a package to a particular address. For a citation to all of the cases to address the ultraviolet lamp issue, see cases cited supra note 13.

136. See 1 W. LaFave, supra note 1, § 2.2 (discusses use of an ultraviolet lamp in limited circumstances).

137. As the Kenaan court illustrated, the critical inquiry becomes whether the arrest, prior to the inspection of the individual's hands, was valid. Kenaan, 496 F.2d at 183. A valid arrest is one that is supported by probable cause. Id. "Probable cause exists where 'the facts and circumstances within their [the officers'] knowledge and of which they had reasonably trustworthy information [are] sufficient in themselves to warrant a man of reasonable caution in the belief that an offense has been or is being committed.'" Brinegar v. United States, 338 U.S. 160, 175-76 (1949) (quoting Carroll v. United States, 267 U.S. 132, 162 (1925)). In Brinegar, the Court characterized probable cause as a compromise for the often conflicting interests of privacy and effective law enforcement. Brinegar, 338 U.S. at 176.

138. 388 F.2d 843, 845 (6th Cir. 1968). For an explanation of the facts in Richardson, see supra note 58.

139. A search accompanied by consent is one of those situations in which a warrantless search may be permissible. For a discussion of the other situations in which a warrantless search is permitted, see supra note 130. The theory behind this exception to the warrant requirement is that an individual cannot object to a search that he has voluntarily consented to. Richardson, 388 F.2d at 845.

140. Id. The Richardson court had no difficulty finding that the defendant had voluntarily consented to the ultraviolet light test in light of the fact that the consent was given prior to the arrest. Id.
before conducting the ultraviolet light test.

IV. CONCLUSION

As a result of recent technological advancements, law enforcement officials now use many sensory enhancing devices to assist in crime detection. The ultraviolet lamp is one of the most common of these devices. Unfortunately, the courts are not in agreement as to whether the use of an ultraviolet lamp constitutes a search. Because the decision as to whether or not a search has taken place is often the difference between a conviction and an acquittal, the Supreme Court should address this conflict and attempt to provide some guidance for other courts.

The Court should conclude that the use of an ultraviolet lamp does constitute a search. This conclusion is the most consistent with the fourth amendment principles set forth in *Katz*, because it recognizes that an individual may reasonably expect that an invisible substance on his hands is protected against unwarranted searches by the right of privacy. In addition, this conclusion is correct because the uncontrolled use of an ultraviolet light to inspect one's skin is the type of activity that the average American is not willing to permit.

Furthermore, this conclusion is correct because courts could impose limits upon this technique without creating an unreasonable burden for law enforcement officials. In fact, because the ultraviolet light test is used most often with a small group of suspects, the police could continue to use the test after a valid arrest or with the individual's consent without violating the fourth amendment. In all other situations, however, the uncontrolled use of the test cannot be tolerated. Until the Court decides to shed some light on the use of ultraviolet light tests, the best advice might be to keep your hands in your pockets.

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