2005

Look What Katz Leaves Out: Why DNA Collection Challenges the Scope of the Fourth Amendment

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NOTE

LOOK WHAT KATZ LEAVES OUT: WHY DNA COLLECTION CHALLENGES THE SCOPE OF THE FOURTH AMENDMENT

It has been almost forty years since Justice Harlan redefined the scope of constitutional protection against unreasonable searches in Katz v. United States.¹ Historically, the Fourth Amendment was only implicated if the government trespassed on property explicitly protected by the text of the amendment itself.² In Katz, Justice Harlan moved away from the property-paradigm and stated that in order to be recognized as a search: (1) a person must have "exhibited an actual (subjective) expectation of privacy"; and (2) that expectation must be "one that society is prepared to recognize as 'reasonable.'³ Shortly thereafter, Justice Harlan questioned the wisdom of his own creation, observing that "[o]ur expectations, and the risks we assume, are in large part reflections of laws that translate into rules the customs and values of the past and present."⁴

Since then, a vast body of Fourth Amendment jurisprudence has been erected on the Katz principle. Simultaneously, technology has presented law enforcement with capabilities unfathomable only a few decades ago. Chief among these scientific breakthroughs is law enforcement's use of DNA evidence to investigate and prosecute suspects with an astounding degree of certainty.⁵ DNA and its related

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¹. 389 U.S. 347, 361 (1967) (Harlan, J., concurring).
³. 389 U.S. at 361 (Harlan, J., concurring).
⁴. United States v. White, 401 U.S. 745, 786 (1971) (Harlan, J., dissenting) ("While these formulations represent an advance over the unsophisticated trespass analysis of the common law, they too have their limitations and can, ultimately, lead to the substitution of words for analysis.").
⁵. Deoxyribonucleic acid ("DNA") is composed of two molecular strands, "oriented in opposite directions," which employ "a digital code similar to that used by computers." Leroy Hood & Lee Rowen, Genes, Genomes, and Society, in GENETIC SECRETS: PROTECTING PRIVACY AND CONFIDENTIALITY IN THE GENETIC ERA 3, 3-4 (Mark A. Rothstein ed., 1997). The language of the
issues have been central to compelling celebrity trials,\(^6\) and the public’s renewed fascination with crime scene investigation, forensics, and law enforcement in general has made DNA a household name.\(^7\) As the technology continues to advance, the question begs answering: Will law enforcement’s collection of DNA fulfill Justice Harlan’s foreboding prophecy and expose the shortcomings of the *Katz* principle? Specifically, can existing Fourth Amendment jurisprudence bring DNA collection within its scope if the physicality of the collection method is eliminated and no dignitary interests are implicated?

In Part I, this Note will introduce the Supreme Court’s “intrusiveness paradigm” and “public exposure doctrine”—two progeny of the *Katz* reasonable expectations of privacy principle—and discuss how courts have applied them to federal and state DNA legislation to find DNA collection to constitute a “search” within the meaning of the Fourth Amendment. Part II will propose hypothetical applications of the Supreme Court’s Fourth Amendment jurisprudence in light of technological advancements which render DNA collection less intrusive,


\(^7\) For the week of March 7-13, 2005, six law enforcement television programs that frequently depict the collection of DNA evidence were among the *Nielsen Media Research Top 20* in ratings, including: *CSI* (No. 1, viewed in an estimated 19,775,000 households), *CSI: Miami* (No. 6, estimated 15,331,000 households), *Cold Case* (No. 10, estimated 11,521,000 households), *Law & Order: Criminal Intent* (No. 13, estimated 11,032,000 households), *Law & Order: SVU* (No. 14, estimated 11,110,000 households), and *Law & Order* (No. 20, estimated 9,013,000 households). See Yahoo! TV: *Nielsen Media Research Top 20, Week of March 7-13, 2005*, at http://tv.yahoo.com/nielsen/ (visited Mar. 21, 2004).
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as well as indications of judicial anxiety regarding the impending realization that non-intrusive DNA collection is outside the scope of Fourth Amendment protection contemplated by the Katz progeny. Part III will note the legitimate policy concerns of those on both sides of the hot topic of expanding DNA databases, suggest that either alternative judicial paradigms or legislation is necessary to safeguard the collection and use of DNA, and consider whether the judiciary or the legislature is best equipped to implement safeguards that address non-intrusive DNA collection.

I. KATZ PROGENY AND PRIOR TREATMENT OF DNA COLLECTION

Subsequent to the Supreme Court’s decision in Katz, the reasonable expectations of privacy principle gave birth to several complimentary legal doctrines. Among these doctrines introduced in cases are “the intrusiveness paradigm,” as well as “the public exposure doctrine.” This Note focuses on these two doctrines because they are the most relevant in determining whether the collection of DNA samples and the subsequent storage of these samples in DNA databases constitute a “search” within the scope of Fourth Amendment protection.

A. The Intrusiveness Paradigm

One derivative of the Katz standard is the intrusiveness paradigm, in which the Supreme Court has recognized that “the integrity of an individual’s person is a cherished value of our society” and therefore the Fourth Amendment only permits “minor intrusions into an individual’s body under stringently limited conditions.” The issue of governmental bodily intrusions under the Fourth Amendment was first addressed in Schmerber v. California, where Justice Brennan stated that in “dealing with intrusions into the human body rather than with state interferences with property relationships or private papers...we write on a clean slate.” This Note will discuss how the Court has subsequently focused on the physicality of the intrusion as the hinge to Fourth Amendment protection.

In Schmerber, an individual was arrested at a hospital while receiving treatment for injuries suffered in a car accident. The arresting officer directed a physician to take a sample of blood, despite the

9. Id. at 767-68.
10. Id. at 758.
patient’s refusal, in order to conduct a chemical analysis and confirm his suspicion that the patient was driving while intoxicated. The Court held that the “compulsory administration of a blood test . . . plainly involves the broadly conceived reach of a search and seizure under the Fourth Amendment.” Nevertheless, the Court found the search constitutionally permissible, because among other reasons, “the test was performed in a reasonable manner” by a “physician in a hospital environment” and there was no “unjustified element of personal risk of infection and pain.”

In order to conduct a search of an individual’s body, the individual must either consent to the search or be detained involuntarily. Consequently, it is important to distinguish between the intrusiveness of the search and the intrusiveness of the detention of the person. The Supreme Court did just that in Davis v. Mississippi, a rape case where the victim gave the police a general description of her assailant as a “Negro youth” and the police, without warrants, then “took at least 24 Negro youths to police headquarters where they were questioned briefly, fingerprinted, and then released without charge.” The Court found that fingerprinting “constitute[s] a much less serious intrusion upon personal security than other types of police searches and detentions” because it “involves none of the probing into an individual’s private life and thoughts that marks an interrogation or search” and is an “inherently more reliable and effective crime-solving tool than eyewitness identifications or confessions.” However, the Court held that the government’s seizure of the petitioner’s person was within the Fourth Amendment’s scope of protection, and that this protection was violated because “the detention at police headquarters of petitioner and the other young Negroes was not authorized by a judicial officer.”

The Supreme Court first harmonized the intrusiveness paradigm with the public exposure doctrine (discussed in depth below) in Cupp v. Murphy, where a woman was found deceased from strangulation and the police compelled her husband, without a warrant, to submit to fingernail scrapings against his will in order to test for the presence of traces of the

11. Id. at 758-59.
12. Id. at 767.
13. Id. at 771-72.
14. See infra notes 16-17 and accompanying text.
16. Id. at 727.
17. Id. at 728.
victim’s skin and blood cells. The Court used the physicality of the intrusiveness paradigm in order to justify a very technical application of the public exposure doctrine, holding that, “the search of the respondent’s fingernails went beyond mere ‘physical characteristics... constantly exposed to the public,’ and constituted the type of ‘severe, though brief, intrusion upon cherished personal security’ that is subject to constitutional scrutiny.” In essence, the Court held that the undersides of our fingernails are within the scope of the Fourth Amendment, whereas the outside of the nails—which are constantly exposed to the public—are not.

The Court further developed the relationship between public exposure and intrusiveness in *Skinner v. Railway Labor Executives Association*, summarizing that:

> [W]here, as here, the Government seeks to obtain physical evidence from a person, the Fourth Amendment may be relevant at several levels. The initial detention necessary to procure the evidence may be a seizure of the person... if the detention amounts to a meaningful interference with his freedom of movement. Obtaining and examining the evidence may also be a search... if doing so infringes an expectation of privacy that society is prepared to recognize as reasonable.

In *Skinner*, the court analyzed railway regulations that mandated blood and urine tests of employees involved in train accidents, and authorized the railroads to administer breath and urine tests to employees who violate certain safety rules. The Court easily found the blood tests to be within the Fourth Amendment’s scope under *Schmerber*, observing that “it is obvious that this physical intrusion, penetrating beneath the skin, infringes an expectation of privacy that society is prepared to recognize as reasonable.” Similarly, the Court relied on the physicality of breathalyzer tests which “generally requires the production of alveolar

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18. 412 U.S. 291, 292-93 (1973). Although the husband was briefly detained at the stationhouse, the police had probable cause to believe that he committed the murder and consequently the “vice of the detention in *Davis* is therefore absent.” *Id.* at 294-95.
19. *Id.* at 295 (quoting United States v. Dionisio, 410 U.S. 1, 14 (1973) and Terry v. Ohio, 392 U.S. 1, 24-25 (1968), respectively).
21. *Id.* at 606. The Fourth Amendment’s protection is limited to “invasive acts by officers of the government or those acting at their direction.” *Id.* at 613-14. The railroad officials were found to be acting at the direction of the government because the Court found that “specific features of the regulations combine to convince us that the Government did more than adopt a passive position toward the underlying private conduct.” *Id.* at 615.
22. *Id.* at 616.
or 'deep lung' breath" as the basis to conclude that the test "implicates similar concerns about bodily integrity" and should be deemed a search.\textsuperscript{23} The implication is that the test only constitutes a search because "deep lung breath" exceeds the normal expulsion of air we constantly expose to the public and consequently is an intrusion of bodily integrity.

More problematic for the Court in \textit{Skinner} was the issue of the collection and testing of urine samples. The Court was precluded from applying the intrusiveness paradigm in some attenuated fashion because "urine samples do not entail a surgical intrusion into the body."\textsuperscript{24} Instead, the Court identified two reasons why urine analysis implicates privacy interests. First, "chemical analysis of urine, like that of blood, can reveal a host of private medical facts."\textsuperscript{25} Secondly, the "visual or aural monitoring of the act of urination" that is often a component of the collection process "'is a function traditionally performed without public observation'" and "'its performance in public is generally prohibited by law.'"\textsuperscript{26} For the combination of these reasons, the Court held that the collection and testing of urine constitutes a search within the meaning of the Fourth Amendment.\textsuperscript{27}

\section{B. The Public Exposure Doctrine}

In \textit{Katz}, the Supreme Court asserted 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."\textsuperscript{28} From this broad mandate emerged a line of cases commonly thought to comprise what is known as the public exposure doctrine. Analysis of these cases indicates that even when subjective expectations of privacy from a particular type of search exist, they are trumped by the determination that the fruits of the

\begin{footnotesize}
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\item \textsuperscript{23} \textit{Id.} at 616-17 (citations omitted).
\item \textsuperscript{24} \textit{Id.} at 617.
\item \textsuperscript{25} \textit{Id.} (stating that urine analysis could reveal that an employee is "epileptic, pregnant, or diabetic"). Similar concerns are raised by DNA analysis, and this precedent is the greatest obstacle to this Note's assertion that non-intrusive governmental collection of DNA falls outside the scope of Fourth Amendment protection according to existing precedent. This issue will be explored further throughout this Note.
\item \textsuperscript{26} \textit{Id.} (quoting Nat'l Treasury Employees Union v. Von Raab, 816 F.2d 170, 175 (5th Cir. 1987)).
\item \textsuperscript{27} \textit{Skinner}, 489 U.S. at 617.
\item \textsuperscript{28} \textit{Katz} v. United States, 389 U.S. 347, 351 (1967). This was in accord with the paradigm shift from property rights to reasonable expectations of privacy, embodied in the principle that "the Fourth Amendment protects people, not places." \textit{Id.}
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challenged search were accessible to the public—and therefore no objective expectation of privacy can reasonably exist.

For example, in United States v. Dionisio, an individual was subpoenaed to appear before a grand jury and furnish a voice exemplar in order to aid the grand jury in their investigatory role.29 Relying upon Katz, the Court held that “no person can have a reasonable expectation that others will not know the sound of his voice.”30 The Court reasoned that a man’s voice is “repeatedly produced for others to hear,” and therefore the required disclosure is “immeasurably further removed from the Fourth Amendment protection than was the intrusion into the body effected by the blood extraction in Schmerber” and more “like the fingerprinting in Davis.”31

Similarly, in United States v. Mara, the Court held that, “[h]andwriting, like speech, is repeatedly shown to the public, and there is no more expectation of privacy in the physical characteristics of a person’s script than there is in the tone of his voice.”32 Mara makes it clear that the expectation of privacy in the physical characteristic itself is what is analyzed, not the expectation of privacy from whatever these characteristics may reveal. It seems reasonable that an individual would be unaware that her handwriting may be unique enough to scientifically identify her signature on private, embarrassing, or potentially incriminating documents.33 Nevertheless, such a use is permissible

29. 410 U.S. 1, 3 (1973). The Court made it clear that “a subpoena to appear before a grand jury is not a ‘seizure’ in the Fourth Amendment sense,” and therefore “[t]his case is thus quite different from Davis v. Mississippi where “the initial seizure ... violated the Fourth and Fourteenth Amendments, not the taking of the fingerprints.” Id. at 9, 11 (citations omitted).

30. Id. at 14. The court stated that it would be equally unreasonable for a man to “expect that his face will be a mystery to the world.” Id. Pursuant to this statement, facial recognition identification software is likely outside the Fourth Amendment’s scope. See Roberto Iraola, Lights, Camera, Action!—Surveillance Cameras, Facial Recognition Systems and the Constitution, 49 LOY. L. REV. 773, 796-98 (2003) (concluding that “it appears to be no different from an officer’s comparing the face of a person he passes on the street with the photograph of a known criminal”). This technology was used to scan faces in the crowd at the stadium during Super Bowl XXXV in Tampa, Florida, as well as in numerous airports after September 11, 2001, and compare “face prints” to a database of criminals and suspected terrorists. Id. at 783-84.


33. “Like fingerprinting identifications, the basic premise behind handwriting analysis is that no two persons write alike, and thus that forensic document examiners can reliably determine authorship of a particular document by comparing it with known samples.” United States v. Crisp, 324 F.3d 261, 270 (4th Cir. 2003). “Before Daubert [v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993)], handwriting analysis testimony was admissible under the Frye [v. United States, 293 F. 1013 (D.C. Cir. 1923)] general acceptance standard” for scientific evidence. United States v. Hidalgo, 229 F. Supp. 2d 961, 966 (D. Ariz. 2002). Subsequent to the Supreme Court’s adoption of the Daubert standard for the admissibility of expert testimony, some courts excluded handwriting
because handwriting is constantly exposed to the public and therefore there is no objective expectation in keeping the handwriting from governmental analysis.

The Supreme Court greatly expanded the concept of "public exposure" in *United States v. Miller*, a case where federal agents subpoenaed a bank to make a suspect's financial records available. The Court held that:

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

In other words, even if the subjective expectation of privacy in personal financial records is understandable, the Fourth Amendment does not apply because the information is "voluntarily conveyed to the banks and exposed to their employees in the ordinary course of business," and therefore an objectively reasonable expectation of privacy does not exist.

The high-water mark of the public exposure doctrine is *California v. Greenwood*, where an enterprising police officer directed a trash collector to pick up the plastic garbage bags that a suspected narcotics trafficker left on the curb in front of his house and found incriminating analysis on the grounds that there was "little known about the error rates of forensic document examiners" which raised "serious questions about the reliability of methods currently in use." *United States v. Saelee*, 162 F. Supp. 2d 1097, 1103 (D. Alaska 2001). In response, Professor Sargur Srihari conducted a study where his research team scanned the handwriting samples of 1,500 individuals into a computer and programmed the computer to analyze the samples "based on a variety of features such as slant, height, the number of interior contours, and the number of vertical slope components." *Hidalgo*, 229 F. Supp. 2d at 962 (discussing Sargur Srihari, *Individuality of Handwriting*, 47 J. FORENSIC Sci. 856 (2002)). The computer was able to match the samples with a remarkable 98% accuracy rate. *Hidalgo*, 229 F. Supp. 2d at 962. Evidently, the United States Secret Service was already aware that handwriting analysis is an efficient detection method, already having in place the "Forensic Information System for Handwriting" ("FISH") which has been used to match the handwriting of several suspects to letters threatening government officials. *Id.* On the basis of these and other findings, courts now analogize handwriting analysis to fingerprint identification and accept handwriting analysis as reliable under the *Daubert* standard. See, e.g., *Crisp*, 324 F.3d at 271.

35. *Id.* at 443; accord *Smith v. Maryland*, 442 U.S. 735, 744 (1979) (When petitioner used his phone he "voluntarily conveyed numerical information to the telephone company and 'exposed' that information to its equipment in the ordinary course of business" and therefore "assumed the risk that the company would reveal to police the numbers he dialed.").
evidence in the rubbish. In its analysis, the Court conceded that “[i]t may well be that respondents did not expect that the contents of their garbage bags would become known to the police or other members of the public.” Nevertheless, the Court concluded that “respondents exposed their garbage to the public sufficiently to defeat their claim to Fourth Amendment protection” because it is “common knowledge that plastic garbage bags left on or at the side of a public street are readily accessible to animals, children, scavengers, snoops, and other members of the public.”

The Supreme Court found the Skinner intrusiveness analysis controlling in Ferguson v. City of Charleston, stating that urine tests conducted by staff members of a state hospital for the purposes of detecting and prosecuting prenatal patients using cocaine “were indisputably searches within the meaning of the Fourth Amendment.” However, Justice Scalia’s dissent distinguished Ferguson from Skinner on the grounds that in the latter, “the urine was obtained involuntarily.” According to Justice Scalia, the only act “that could conceivably be regarded as a search” is “the taking of the urine sample,” not “the testing of that urine for traces of unlawful drugs” because “the Fourth Amendment protects only against searches of citizens’ ‘persons, houses, papers, and effects’; and it is entirely unrealistic to regard urine as one of the ‘effects’ (i.e., part of the property) of the person who has passed and

38. Id. at 39.
39. Id. at 40 (citations omitted). The Court noted that “we are distinctly unimpressed with the dissent’s prediction that ‘society will be shocked to learn’ of today’s decision.” Id. at 43 n.5 (citation omitted). Nevertheless, there is reason to believe that the dissent’s prediction was accurate. For example, after the Oregon police department revealed that it has been standard practice for narcotics officers to conduct bi-monthly “garbage pulls” for the past three decades, a local newspaper decided “to turn the tables” on Portland’s District Attorney, Police Chief, and Mayor in order “to make a point about how invasive a ‘garbage pull’ really is.” See Chris Lydgate & Nick Budnick, Rubbish! Portland’s Top Brass Said It Was OK to Swipe Your Garbage—So We Grabbed Theirs, WILLAMETTE WK. ONLINE, Dec. 24, 2002, available at http://www.wweek.com/print.php?story=3485 (last visited May 23, 2005). (It is not clear from the article whether these bi-monthly pulls have been taking place for three decades or since Greenwood.) The reporters listed an inventory of the items discovered and quipped: “Invasion of privacy? This is a frontal assault, a D-Day, a Norman Conquest of privacy. We know the chief’s credit-card number; we know where he buys his groceries; we know how much toilet tissue he goes through.” Id. When the reporters revealed what they had done and the fruits of their haul, the Police Chief remarked, “This is very cheap,” and despite earlier support of the notion that trash is public property, the Mayor threatened to take legal action. Id.
40. 532 U.S. 67, 76 (2001). Because the hospital at issue was a state hospital, “the members of the staff are government actors, subject to the strictures of the Fourth Amendment.” Id.
41. Id. at 93 & n.1 (Scalia, J., dissenting).
Justice Scalia makes a sound, principled argument—if the urine is exposed to the public like the bank records in *Miller* or the garbage left at the curb in *Greenwood*, then the Court’s precedent establishes that it is open for the government’s taking and any subsequent testing is not within the scope of the Fourth Amendment.

C. Federal and State DNA Database Legislation

The DNA Analysis Backlog Elimination Act of 2000 (“DNA Act”) compels individuals convicted of any federal felony and certain offenses including murder, voluntary manslaughter, offenses relating to sexual abuse, child abuse, kidnapping, robbery, burglary, and offenses relating to peonage and slavery who are incarcerated, on parole, probation, or supervised release to provide federal authorities with “a tissue, fluid, or other bodily sample” for the purpose of conducting an “analysis of the deoxyribonucleic acid (DNA) identification information.” Furthermore, the USA PATRIOT ACT adds acts of terrorism to the list of DNA collection triggering felonies. Every state now operates a DNA collection program and these programs are expanding nationwide.

It is important to understand the scientific precision of DNA identification and the technology law enforcement has developed to utilize it in order to fully appreciate the debate over the expansion of DNA databases. Once the FBI receives the qualified federal offender’s sample, they extract a “genetic fingerprint” through short tandem repeat technology (“STR”) which detects the presence of genic variants known

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42. Id. Justice Scalia understood that “some would argue... that testing of urine is prohibited by some generalized privacy right ‘emanating’ from the ‘penumbras’ of the Constitution”; however, he noted that “it is not even arguable that the testing of urine that has been lawfully obtained is a Fourth Amendment search.” Id.
45. 42 U.S.C.S. §§ 14135a(a)(1)-(2), (c)(1)-(2) (LexisNexis 2004).
47. See 18 U.S.C.S. § 2332b(g)(5)(B) (LexisNexis Supp. 2005) for a laundry list of such offenses, including the destruction of aircraft, the murder of foreign officials, use of weapons of mass destruction, and the sabotage of nuclear facilities or fuel.
as alleles located at thirteen specific loci on DNA present in the specimen. Due to the number of alleles present at each locus and the "wide-spread variances in their representation among human beings, the chance that two randomly selected individuals will share the same profile are infinitesimal." The resulting profile is then loaded into the FBI's Combined DNA Index System ("CODIS"), comprised of DNA profiles from federal, state, and territorial DNA collection programs, as well as profiles from crime-scene evidence, unidentified remains, and genetic samples voluntarily provided by relatives of missing persons. As of March 2005, CODIS contained 2,380,458 total profiles, comprised of 2,277,056 convicted offender profiles and 103,402 forensic profiles. All fifty states, the U.S. Army, the FBI, and Puerto Rico contribute profiles to CODIS.

Additionally, many state contributors collect DNA upon conviction of felonies outside of the federal model (such as drug crimes), twenty-six collect DNA upon conviction of some misdemeanors, and Virginia, Texas, and Louisiana collect DNA from all arrestees. Presently, no DNA collection statute calls for collection from the general public. The reason that the general public is currently excluded is because law enforcement has uniformly collected DNA through blood or saliva samples which have been found sufficiently intrusive under the Katz progeny to constitute a search under the Fourth Amendment.

D. Application of Katz Progeny to Intrusive DNA Collection

Although the Supreme Court has not granted certiorari on a Fourth Amendment challenge to DNA collection, many lower federal and state courts have analyzed this issue in the context of the aforementioned DNA database statutes. The Second, Seventh, and Tenth Circuits, along with many federal district courts and two state supreme courts, have upheld existing DNA collection statutes under a "special needs
Alternatively, the Fourth, Fifth, and Ninth Circuits, as well as many federal district courts, and a variety of state courts "have approved compulsory DNA profiling under a traditional assessment of reasonableness gauged by the totality of the circumstances." Presently, no court has found that DNA collection is outside the scope of Fourth Amendment protection.

In *Rise v. Oregon*, a convicted murderer challenged the constitutionality of Oregon's DNA database statute requiring persons convicted of murder, a sexual offense, or conspiracy or attempt to commit a sexual offense to submit a blood sample to the Oregon Department of Corrections. Due to the fact that the collection method involved the non-consensual extraction of blood, the court had little difficulty finding that the statute "implicates Fourth Amendment privacy rights" under *Skinner*. However, in the course of conducting a reasonableness-balancing, the court found that the "information derived from the blood sample is substantially the same as that derived from fingerprinting—an identifying marker unique to the individual from whom the information is derived." All other courts that have analyzed DNA collection through blood samples have found the collection invokes the Fourth Amendment.

The analysis becomes more interesting when less intrusive DNA collection methods are at issue. In *United States v. Nicolosi*, the court considered the constitutionality of a subpoena directing an indicted suspect to produce samples of his saliva. The court found that compelled saliva samples fall in the middle of the intrusiveness and public exposure "continuum," somewhere between "voice, hair and handwriting samples" which are "in the public domain" and consequently may be obtained without implicating "any privacy or dignity interests," and blood samples "which could only be obtained by extracting them from the body." The court observed that although

57. *Id.* at 831. The decision in *Kincade* added the Ninth Circuit to list provided by the court. See *id.* at 832.
59. See *id.* at 1558-59.
60. See *id.* at 1559.
61. *Id.*
64. *Id.* at 55.
saliva contains "a significant amount of genetic identity information" which the suspect may understandably expect to be private, "expectorating is not . . . concealed behind closed doors as urinating." 65

In the end, the court looked to the intrusiveness of the process of obtaining a saliva sample and found that "swabbing the inside of the subject's mouth with a pad" implicates "dignitary interests." 66

Apparently, the court avoided the public exposure doctrine through an application of the intrusiveness paradigm reminiscent of Cupp, stating that the swabbing procedure is "clearly a search within the skin, if not literally beneath it." 67

The Supreme Court of Vermont expressly rejected the Nicolosi decision. 68 The court found the public exposure doctrine unavoidable, stating that, "[a]lthough the inside of one’s mouth is often hidden from public view, exposing it does not entail . . . embarrassment" and "by talking and yawning, we frequently expose the interior of our mouth to public view." 69 Consequently, the saliva sample was found more "similar to the characteristics of fingerprinting as described in Davis" and only reasonable suspicion was required. 70 It is notable that the court's disagreement is dependent on the perceived physical intrusiveness of the collection method. 71 Viewed collectively, these cases expose the shortcomings of existing Fourth Amendment jurisprudence in addressing the constitutionality of non-intrusive DNA collection methods where no dignitary interests are implicated.

65. Id. (noting the "commonplace sight of athletes expectorating on national television on a daily basis.").
66. Id.
67. See id. For a discussion of Cupp v. Murphy, 412 U.S. 291 (1973), see supra notes 18-19 and accompanying text.
69. Id. at 1244. Nevertheless, the nontestimonial identification order procedure falls within the scope of the Fourth Amendment because it requires an in-custody detention of the person. See id. at 1245.
70. Id. at 1247.
71. In a similar context, the majority of jurisdictions have extended the public exposure rationale to instances where law enforcement shines an ultraviolet lamp on an arrestee's skin to expose chemicals transferred from stolen money. See United States v. Richardson, 388 F.2d 842, 845 (6th Cir. 1968); State v. Holzapfel, 748 P.2d 953, 957 (Mont. 1988) (citing Commonwealth v. DeWitt, 314 A.2d 27, 30-31 (Pa. Super. Ct. 1973)). But see People v. Santistevan, 715 P.2d 792, 794-95 (Colo. 1986). In State v. Hardaway, the Supreme Court of Montana limited Holzapfel, distinguishing the swabbing of blood off an injured burglary suspect's hands and DNA processing as a "search" because "[w]hile his hands and the blood upon them were exposed to the public for viewing, it was not the viewing that constituted the search; it was the swabbing." 36 P.3d 900, 907 (Mont. 2001). This is yet another example of a DNA case decided on the familiar crutch of the intrusiveness doctrine and the physicality of the search.
II. TECHNOLOGICAL ADVANCEMENTS RENDER THE INTRUSIVENESS PARADIGM IRRELEVANT

For the courts discussed above, the Fourth Amendment question centered on the physicality of the DNA collection method involved and whether the resulting bodily integrity, and dignitary interests invaded, contravened reasonable expectations of privacy. These opinions effectively decided the cases before them, making it unfair to characterize them as shortsighted, yet the technological advancement of DNA collection science in the years that followed has potentially rendered their analyses irrelevant. Indeed, when the threshold question is revisited with these advancements in mind, a considerable amount of doubt is cast on whether DNA collection continues to constitute a search within the scope of Fourth Amendment protection at all. This possibility has not gone unnoticed, and indications of judicial anxiety towards DNA collection and technological advancement in general have resurfaced as a result.

A. Advancements in DNA Collection and the Fingerprint Analogy

Scholars have noted that "[i]n light of rapid technological advancements ... DNA may soon be extracted with virtually no bodily intrusion." The premise is simple. Our bodies constantly shed skin cells which contain DNA, rendering it "almost impossible to not leave some genetic legacy of yourself behind everyday." As discussed above in the context of lower court DNA database decisions, DNA was initially extracted through an undeniably intrusive blood sample. However, technology has continued its inevitable march forward, and the potential for non-intrusive DNA collection methods has emerged.

It is not surprising to even a casual Law & Order or CSI television program fan that the police are readily capable of collecting hair samples...
and bodily fluids from crime scenes for DNA identification purposes.\textsuperscript{75} Perhaps more surprisingly, law enforcement is now able to extract DNA without any "sub-dermal physical intrusion" simply by applying a "sticky patch" to the skin on an individual's forearm, removing it a moment later, and collecting the epidermal cells left in the process.\textsuperscript{76} As the technology continues to develop, it has become apparent that a mere fingerprint may be sufficient to collect an accurate DNA sample.\textsuperscript{77} Accordingly, it is foreseeable that DNA will soon be collected with the same negligible amount of physical intrusiveness as the \textit{Davis} Court found fingerprinting to constitute.\textsuperscript{78} Therefore, DNA may eventually be collected in a completely non-intrusive, inoffensive manner when obtained during a field test or left in a public place where no seizure of the person is required.\textsuperscript{79}

Of course, there is a notable difference between DNA and fingerprints in the private information DNA has the potential to reveal. Specifically, the impetus behind many anti-databanking advocates' arguments is that DNA samples can be analyzed for "markers" associated with congenital diseases, susceptibility to diseases, and, potentially, behavioral traits and psychiatric conditions as well.\textsuperscript{80} These

\textsuperscript{75} See Ben Quarmby, \textit{The Case for National DNA Identification Cards}, 2003 DUKE L. & TECH. REV. 2 (2003); CSI: Crime Scene Investigation (CBS); Law & Order (Wolf Films & NBC Universal Television Studio).

\textsuperscript{76} Quambry, supra note 75 (asserting that for this reason modern DNA sampling methods no longer "violate reasonable societal expectations of privacy"); see also David H. Kaye, Michael E. Smith & Edward J. Imwinkelried, \textit{Is a DNA Identification Database in Your Future?}, 16 CRIM. JUST. 4, 9 (2001).

\textsuperscript{77} See, e.g., Roland A.H. van Oorschot & Maxwell K. Jones, \textit{DNA Fingerprints from Fingerprints}, 387 NATURE 767 (1997) (The article summarizes experiments which have revealed that "an individual's genetic profile can now also be generated from swabs taken from objects touched by hands, providing a new tool for crime scene investigations.").

\textsuperscript{78} See supra notes 15-17 and accompanying text.

\textsuperscript{79} For example, Boston police retrieved DNA from a cigarette provided to a prisoner suspected of murder and the NYPD has retrieved DNA samples from a suspect's coffee cup, see Richard Willing, \textit{As Police Rely More on DNA, States Take a Closer Look}, USA TODAY, June 6, 2000, at A1, as well as from the saliva of a crack addict suspected of being a serial strangler spat onto the street. See Christopher Francescanci, \textit{Sex Fiend Admits He Killed 5 In Brooklyn}, N.Y. POST, Mar. 10, 2001, at 11. Professor David H. Kaye, an authority on the use of DNA in the criminal justice system, recounted a story of an individual who pled guilty to rape after an enterprising police officer invited the suspect to Taco Bell, bought him a soft drink and used the straw to recover inculpatory DNA evidence. See Symposium, supra note 74, at 409-10.

\textsuperscript{80} See, e.g., Rothstein & Carnahan, supra note 73, at 156; Press Release, American Civil Liberties Union, ACLU of New Jersey Wins Victory In DNA Law Challenge (Dec. 22, 2004), at http://www.aclu.org/Privacy/Privacy.cfm?ID=17236&c=27 ("The law threatens the privacy of thousands of New Yorkers and their relatives by collecting personal and confidential information and maintaining it in a database, the ACLU argued in court."). For a discussion of genetic markers, see Susanna Annunen et al., \textit{An Allele of COL9A2 Associated with Intervertebral Disc Disease}, 285
concerns are derivative of those expressed in Skinner regarding the private medical facts which may potentially be revealed through urine analysis.  

This argument is more attenuated in the DNA context because the DNA used by law enforcement is used exclusively for identification purposes. The thirteen core STR loci used in criminal offender databases are each found on non-genic stretches of DNA known as “junk DNA” not linked to any genes that would permit an onlooker to discern any socially stigmatizing conditions or private medical facts. Furthermore, the profile of an individual’s DNA molecule that is stored in CODIS is a series of randomly assigned numbers—mitigating the potential for abuse by unauthorized viewers. Additionally, the DNA Act provides protections against misuse of genetic information by strictly limiting the permissible uses of DNA profiles and stored samples, as well as providing criminal penalties for improper disclosure or receipt. As of yet, there are no known instances of the disclosure of DNA information for the purposes of insurance or hiring. Consequently, the argument that DNA collection, analysis, and storage in a database is more intrusive than in the fingerprint context is based primarily on an unwillingness to trust that the government will use the samples exclusively for its stated purpose, while preventing others from

SCIENCE 409, 409 (1999) (summarizing reports which indicate the importance of genetic factors in intervertebral disc disease); Peter Aldhous, The Promise and Pitfalls of Molecular Genetics, 257 SCIENCE 164, 164-65 (1992) (discussing research efforts to find genetic markers that correlate with high IQ, dyslexia, psychiatric diseases, and reading ability in children); Charles C. Mann, Behavioral Genetics in Transition, 264 SCIENCE 1686, 1686-89 (1994) (noting that “there are signs of a growing consensus that heredity plays some role in human behavior” in response to “[m]ounting evidence from animal and human studies”).

81. See supra note 25 and accompanying text.


83. See D.H. Kaye & Michael E. Smith, DNA Identification Databases: Legality, Legitimacy, and the Case for Population-Wide Coverage, 2003 WIS. L. REV. 413, 431 (2003) (“The numbers have no meaning except as a representation of molecular sequences at DNA loci that are not indicative of an individual’s personal traits or propensities.”).

84. Compare 42 U.S.C. § 14132(b)(3) (2004) (strictly limiting disclosure to criminal justice agencies, judicial proceedings, criminal defense purposes and, on the condition that all personally identifiable information is removed, for population statistics databases), with § 14135e (2004) (providing a criminal penalty of “not more than $250,000, or imprison[ment] for a period of not more than one year, or both” for knowingly disclosing or obtaining a sample in violation of § 14132(b)(3)).

accessing the treasure trove of private information stored DNA samples may contain.

B. The Threshold Question Revisited

Initially, scholarly analysis of DNA collection centered on its "reasonableness" under the Forth Amendment because the taking of blood samples was the only collection method analyzed. More recently, the sentiment has emerged that although the aforementioned advancements in DNA collection likely will not constitute a search under the Supreme Court's "intrusiveness" case line, the unique nature of DNA and the privacy interests potentially implicated justify an inferential leap necessitating Fourth Amendment protections. However, the suggestion has been made that if a DNA extraction procedure was developed that made it "virtually impossible to extract sensitive information" used for anything other than identification purposes, then the Fourth Amendment would no longer be invoked. Nevertheless, perhaps as a remnant of the blood sample days, scholars often continue to fail to address the threshold question at all. Further
discussion in this area is required to develop the legal precedent surrounding DNA collection and storage.

For example, it is arguable under the public exposure rationale espoused in *Miller* that tissue samples taken for diagnostic medical tests could be legally obtained without consent by the government because the DNA information contained therein has been voluntarily disclosed to a public institution.90 Although this may seem outrageous, as Judge Kozinski succinctly observed:

[I]t's hard to say that most of us have any expectation as to what happens to our blood once it leaves our veins in the doctor's office; we certainly don't expect it to be returned to us. Arguably, we have no more reasonable expectation of privacy in blood turned over to third parties and abandoned than we do in our trash cans or bank records.91

Even those who argue for limitations on the use of DNA under the rubric of Fourth Amendment protections have acknowledged that "[i]f the government could take one's DNA without intrusion upon one's personal security or privacy expectations, then, arguably, no Fourth Amendment violation would exist."92 With it all but inevitable that as technology marches forward the actual method of DNA collection will become less and less intrusive, it seems that Judge Kozinski was correct in his analysis of the shortcomings of the intrusiveness doctrine, observing that:

[A]s our techniques for extracting DNA improve and identifying information can more easily be obtained from urine and saliva, or from hair follicles inadvertently pulled out during a visit to the barber or hairdresser... [and if, as a consequence] we have no legitimate expectation of privacy in such bodily material, what possible impediment can there be to having the government collect what we leave behind, extract its DNA signature and enhance CODIS to include everyone?93

90. *See supra* notes 34-36 and accompanying text; *accord Symposium, supra* note 74, at 410 (claiming that it is "far from clear" that the distinction between biological samples and financial information would prevail).


92. Rothstein & Carnahan, *supra* note 73, at 144.

93. *Kincade*, 379 F.3d at 873 (Kozinski, J., dissenting).
C. Indications of Judicial Anxiety Towards Technological Advancement

Our common law legal system is most strained when existing law is forced to "accommodate technological innovation." Consequently, the judiciary has always been wary of technology's ability to trump precedent through unforeseen advancement. Indeed, when law enforcement equips itself with new technology, the "judicial conscience" is forced to balance the promise of greater crime-solving efficiency against an intrusion beyond the contemplation of the drafters of the Fourth Amendment. As Justice Brandeis famously observed, the future is in the care of the Constitution, and the Judiciary must make "provision for events of good and bad tendencies of which no prophecy can be made" through a contemplation not only of "what has been but of what may be."

The present Supreme Court's anxiety regarding technological advancement is highlighted by Kyllo v. United States. In Kyllo, the Court analyzed "whether the use of a thermal-imaging device aimed at a private home from a public street to detect relative amounts of heat within the home constitutes a 'search' within the meaning of the Fourth Amendment." At first blush, the case appeared clearly governed by the public exposure doctrine because "[h]eat waves, like aromas that are generated in a kitchen, or in a laboratory or opium den, enter the public domain if and when they leave a building." However, the majority reframed the issue as "what limits there are upon this power of technology to shrink the realm of guaranteed privacy."

As a starting point, the Court identified the interior of one's home as a privacy interest "with roots deep in the common law." The Court

95. See, e.g., Olmstead v. United States, 277 U.S. 438, 472-73 (1928) (Brandeis, J., dissenting) ("Clauses guaranteeing to the individual protection against specific abuses of power, must have a similar capacity of adaptation to a changing world . . . [because] time works changes, brings into existence new conditions and purposes. Therefore a principle to be vital must be capable of wider application than the mischief which gave it birth.").
96. Kincade, 379 F.3d at 871 (Kozinski, J., dissenting).
97. Olmstead, 277 U.S. at 473 (Brandeis, J., dissenting).
99. Id. at 29.
100. Id. at 43-44 (Stevens, J., dissenting).
101. Id. at 34. Consequently, the dissent found that "the Court 'takes the long view' and decides this case based largely on the potential of yet-to-be-developed technology." Id. at 42 (Stevens, J., dissenting).
102. Id. at 34.
then observed that although the technology at issue was "relatively crude," the decision "must take account of more sophisticated systems . . . in development." On these grounds the Court held that where "the Government uses a device that is not in general public use, to explore details of the home that would previously have been unknowable without physical intrusion, the surveillance is a 'search.'" Revealingly, the Court justified its departure from the public-exposure doctrine with pre-\textit{Katz} precedent functioning under the historic property-paradigm. This is an indication that at least four members of the Court were reluctant to permit technological innovation to render \textit{Katz} the equivalent of a sleeping gatekeeper.

Nevertheless, \textit{Kyllo} is not dispositive in determining whether non-intrusive DNA collection constitutes a "search." First, it is arguable that \textit{Kyllo} establishes "no more than that the use of technology that is functionally equivalent to trespassing into a home to acquire information is a search." Furthermore, it is notable that the Fourth Amendment's protections of searches of the person do not possess the common law roots the \textit{Kyllo} majority relied on to justify a reincarnation of the property-paradigm in the interior of the home context. Additionally, the protection of the \textit{Kyllo} rule potentially "dissipates as soon as the relevant technology is 'in general public use.'" Along these lines, retail DNA kits are already available for at-home paternity testing.

Recently, similar judicial anxiety has been displayed towards the expansion of DNA databases. In \textit{United States v. Kincade}, the Ninth Circuit sat \textit{en banc} to determine the constitutionality of the DNA Act's

103. \textit{Id.} at 36. Among the technological advancements that loomed large in Justice Scalia's mind were a "Handheld Ultrasound Through the Wall Surveillance" device and a "Radar Flashlight" he discovered while surfing the web. \textit{See id.} at 37 n.3.

104. \textit{Kyllo}, 533 U.S. at 40.

105. \textit{See id.} at 31, 34, 37 (citing \textit{Silverman v. United States}, 365 U.S. 505, 510-12 (1961)). Recall that \textit{Silverman} stood for the principle that the Fourth Amendment was only implicated if the government physically trespassed on an individual's property, not whether governmental action contravened theoretical expectations of privacy. \textit{See supra} note 2 and accompanying text.


107. \textit{See id.} Recall that it was only 1966 when the Court stated in \textit{Schmerber} that in "dealing with intrusions into the human body . . . we write on a clean slate." \textit{See id.; supra} note 9 and accompanying text for a discussion of \textit{Schmerber}.

108. \textit{Kyllo}, 533 U.S. at 47 (Stevens, J., dissenting) (quoting the majority opinion at 34). Justice Stevens noted that the very thermal device at issue was "just an 800-number away from being rented from 'half a dozen national companies' by anyone who wants one." \textit{Id.} at 47 n.5.

109. \textit{See, e.g.}, International Paternity Labs, \textit{available at} http://www.internationalpaternity.com/ (advertising an "Easy to Use At-Home-DNA Collection Kit . . . complete with all the supplies necessary to collect cheek cells from the alleged father, child and mother (mother optional)") (last visited May 23, 2005).
requirement that conditionally-released federal offenders provide blood samples for the purpose of generating a DNA profile absent individualized suspicion that they have committed additional crimes. Finding that the compelled blood sample constitutes a search under
eSkinner,
e the court determined that the appropriate Fourth Amendment test was reasonableness under the totality of the circumstances. Furthermore, the court found that the junk DNA generated profile produced only a “record of the defendant’s identity . . . [in] which the qualified offender can claim no right of privacy.” Accordingly, the court dismissed the “parade of horribles the DNA Act’s opponents fear” including “unregulated disclosure of CODIS profiles to private parties” and “genetic discrimination” as “dramatic Hollywood fantasies” irrelevant to the contemplation of a rational court.

Nevertheless, the court displayed its reluctance to permit DNA collection of the general public. First, the court imported what it characterized as the “constitutionally significant distinction between searches of conditional releases and searches of the general public,” provided by the Supreme Court in Ferguson, to justify its application of the traditional reasonableness balancing test to the former.

The majority went to great lengths to limit its holding to “lawfully adjudicated criminals,” while excluding “law-abiding citizens . . . passing through some transient status” such as “newborns, students, [or] passengers in a car or on a plane.”

It is notable that although the Kincade court was forced to analyze the DNA Act under the protections of the Fourth Amendment because a blood sample was at issue, the majority neglected to address the threshold question of what would happen if the sample were to derive from less intrusive means. This omission was not overlooked by the dissenters, who argued that “[t]o reduce the searches authorized by the DNA Act to the physical act of taking blood” ignores “the advance in technology,” and therefore it “is important to recognize that the Fourth Amendment intrusion here is not primarily the taking of the blood, but seizure of the DNA fingerprint and its inclusion in a

110. 379 F.3d 813, 816 (9th Cir. 2004), cert. denied, No. 04-7253, 2005 U.S. LEXIS 2505 (Mar. 21, 2005).
111. Kincade, 379 F.3d at 821 n.15.
112. Id. at 832.
113. Id. at 837.
114. Id. at 838. Ultimately, the Court found the DNA Act reasonable. See id. at 839.
115. See id. at 832.
116. Id. at 835-36.
117. Id. at 867 (Reinhardt, J., dissenting) (quoting Kyllo, 533 U.S. 27, 33-34 (2001)).
Indeed, the majority’s efforts to limit its holding may be for naught considering the contribution it makes to the fingerprint analogy in finding that the only private information a DNA profile and sample reveals is an individual’s identity. This assertion is particularly relevant in light of the Supreme Court’s recent decision that the “principles of Terry permit a State to require a suspect to disclose his name” in the course of a valid Terry stop based on reasonable suspicion. Therefore, it is arguable that if DNA could be collected non-intrusively on-site, profiled and quickly compared to the CODIS database via a patrol car’s computer, then state legislation could require an individual to submit to DNA collection during the course of a Terry stop under the theory that the DNA profile does not invoke the Fourth Amendment and is equivalent to a name disclosure requirement for identification purposes.

Regardless of the existing legal arguments, the final hurdle for legislating DNA collection of the general public is societal acceptance. At this time, DNA analysis is still a relatively new scientific phenomenon to the general population. However, technological advancements in DNA collection are rapidly becoming household knowledge due to major media trials and the law enforcement shows broadcast into our homes on a nightly basis. Consequently, it seems that under the Katz standard, the question is not whether non-intrusive governmental collection of DNA violates society’s reasonable expectation of privacy—but how much longer until people no longer expect privacy from the non-intrusive governmental collection of their DNA.

Once again, the fingerprint analogy is illuminative. Presently, the FBI’s Integrated Automated Fingerprint Identification System (“IAFIS”) database contains “over 47 million people, including prints ‘acquired related to a background check for employment, licensing, and other non-criminal justice purposes’ and ‘submitted voluntarily by state, local, and federal law enforcement agencies.’” Nevertheless, as Judge Kozinski points out, there is no outcry from civil libertarians because society has “come to accept that people—even totally innocent people—have no

118. Kincade, 379 F.3d at 873 (Kozinski, J., dissenting).
119. See supra notes 113-14 and accompanying text.
120. Hiibel v. Sixth Judicial Dist. Court, 124 S. Ct. 2451, 2459 (2004). The Court reasoned that the statute at issue “does not alter the nature of the stop itself: it does not change its duration or its location.” Id. (citation omitted).
legitimate expectation of privacy in their fingerprints, and that's that." One can only speculate how long it will take before the public views DNA profiling with similar indifference.

III. CONFLICTING POLICY AND THE NECESSITY FOR SAFEGUARDS

As illustrated, a genuine constitutional controversy exists over whether the non-intrusive collection of DNA samples and the subsequent storage of these samples in DNA databases constitutes a search within the meaning of the Fourth Amendment. This controversy will only add fuel to the hot debate between law enforcement advocates and civil libertarians over the expansion of DNA databases. In determining what role the Supreme Court should take in resolving this political dispute, should it grant a petition for certiorari, it is helpful to understand fundamental legal theory discerning the appropriate role of the judicial and legislative branches in resolving constitutional controversies.

Scholars have long identified Justice Oliver Wendell Holmes, Jr., and his "two-sided" view of the judicial role, characterized as the conflicting philosophies of "judicial self-restraint" and "judicial activism," as a paradigm for analyzing the judiciary's role in deciding constitutional controversies. This distinction is best illustrated by Holmes's call for the reform of "survivals." Survivals are legal doctrines whose original policy basis has disappeared, but nevertheless survive through "inertia" and are given "new and unconvincing explanations." To Holmes, the new justifications for survivals must be highly scrutinized, and if found unsatisfactory they should be revised. However, Holmes believed that the appropriate means of survival reform was the legislature rather than the judiciary. Holmes understood that the judiciary was not equipped to make sweeping policy determinations in the absence of sound legal precedent because the policy adopted would be largely "the unconscious result of instinctive preferences and inarticulate convictions."

122. Kincade, 379 F.3d at 874.
125. See Grey, supra note 124, at 28-29.
126. Id.
127. Id. at 31.
128. HOLMES, supra note 124, at 32.
In contrast to the judicial self-restraint encouraged when dealing with survivals, the Holmesian judge is encouraged to be activist when the underlying policy of a doctrine is sound, yet the factual circumstances have changed to create a gap in the law. In these situations, "judges must make law on the basis of policy and ... they should do so explicitly." After thorough consideration, if the judge is faced with a decision between conflicting policies, it is the judge's role "to exercise the sovereign prerogative of choice" and engage in judicial legislation. Essentially, the decision to exercise self-restraint or judicial activism depends on a matter of degree and philosophy. This distinction remains vital today in the ongoing debate between legal activists and populist majoritarians over the role of the judiciary in resolving constitutional controversies such as the expansion of DNA databases.

A. The Clash of Compelling Interests

Fundamentally, the topic of expansion of the CODIS DNA database provokes a personal response driven by one's opinion regarding the appropriate balance between governmental power and civil liberties. It comes as no surprise that the law enforcement community, including such prominent voices as former New York City Police Commissioner Howard Safir, has called for continued expansion of DNA databases from the outset. The success of the CODIS system certainly legitimizes their argument—as of March 2005, CODIS has produced over 21,200 hits assisting in more than 23,000 investigations. It is undeniable that a population-wide DNA database "would revolutionize law enforcement" by increasing prosecutors' success rates and providing

129. Grey, supra note 124, at 33 (interpreting Southern Pacific v. Jensen, 244 U.S. 205, 221 (1917) (Holmes, J., dissenting)).
130. Grey, supra note 124, at 24.
131. OLIVER WENDELL HOLMES, Law in Science and Science in Law, in COLLECTED LEGAL PAPERS 210, 239 (1920) (originally appearing at 12 HARV. L. REV. 443 (1899)).
132. See John Kifner, Safir Says DNA Proposal Would Cut Property Crime, N.Y. TIMES, Dec. 13, 1998, at 51 (reporting that Safir's plan would call on the New York Legislature to consider expanding the New York State databanking law to allow DNA collection from every person arrested); Jayson Blair, Police Chiefs Join in Call for More DNA Sampling, N.Y. TIMES, Aug. 16, 1999, at B5 (reporting that the "leadership of a worldwide association of police agencies" proposed a resolution urging "the Federal Government to create a national database based on samples collected at the time of arrest").
133. See Fed. Bureau of Investigation, Measuring Success, at http://www.fbi.gov/hq/lab/codis/success.htm (last visited May 23, 2005). "CODIS's primary metric, the 'Investigation Aided,' is defined as a case that CODIS assisted through a hit (a match produced by CODIS that would not otherwise have been developed)." Id.
a formidable deterrent to would-be criminals. Additionally, the Executive Director of the National Institute of Justice’s National Commission on the Future of DNA Evidence noted that programs using DNA evidence to exonerate those wrongfully convicted illuminates a problem that would be greatly diminished if DNA databanks were established to verify identity in the first place. These arguments were bolstered by the impetus of the World Trade Center disaster, promoting noted scholar Alan Dershowitz to speculate that most Americans would not object to a loss of privacy in light of the benefits a “near foolproof system of identification” could provide.

On the other hand, critics of DNA database expansion cry out that a universal database constitutes a “step toward an Orwellian society,” that will render us a “nation of suspects.” To many, the enthusiasm of the law enforcement community’s advocacy evokes Justice Brandeis’s eloquent warning that:

Experience should teach us to be most on our guard to protect liberty when the Government’s purposes are beneficent. Men born to freedom are naturally alert to repel invasion of their liberty by evil-minded rulers. The greatest dangers to liberty lurk in insidious encroachment by men of zeal, well-meaning but without understanding.

In other words, the critics see the CODIS success rate and the appeal to our collective fear of hidden terrorist cells lurking in our midst as a potential Trojan horse. After all, once the government possesses “private information about the intimate details of our lives” the balance of power will be profoundly altered and the population made

134. See Cronan, supra note 86, at 156.

135. See Symposium, supra note 74, at 406 (“You have to commit yourself to utilizing DNA technology on the front end so that you get the right person in the first place. We don’t want to wait until ten years after someone’s been convicted to utilize DNA technology . . . .”) (quoting Chris Asplen).

136. See Alan M. Dershowitz, Identification Please, BOSTON GLOBE, Aug. 11, 2002, at 14, available at 2002 WLNR 2565908 (“The need for security in this age of terrorism demands that the legal status of everyone in this country be unambiguously clear.”).

137. See Jean E. McEwen, Sherlock Holmes Meets Genetic Fingerprinting, B.C. L. SCH. MAG., Spring 1994, at 49.


139. See, e.g., Rothstein & Carnahan, supra note 73, at 169 (quoting Olmstead v. United States, 277 U.S. 438, 479 (1928) (Brandeis, J., dissenting)); Peterson, supra note 89, at 1219 (quoting Olmstead, 277 U.S. at 479 (Brandeis, J., dissenting)).
vulnerable. This sentiment rehashes concerns over the potential for genetic discrimination by employers and insurers privy to this private information.

The goal of this Note is not to express an opinion on the expansion of CODIS to the general population, but merely to suggest that such an expansion is feasible under existing constitutional precedent. Regardless of which side of the spectrum we as individuals fall on, most of us would agree that safeguards are necessary in order to limit the future use of DNA databanks. This Note will discuss two methods to do so, the first through judicial activism filling the gaps in existing precedent, and the second through populist deference to the will of the majority through their elected representatives.

B. The Activist Approach: Reinforce the Threshold Question With New Katz Paradigms

Judicial activism is commonly defined as “the practice by judges of disallowing policy choices by other governmental officials or institutions that the Constitution does not clearly prohibit.” Legal pragmatists endorse judicial activism under the belief that judges are “the socially designated experts” in resolving problematic situations. Accordingly, pragmatists adopt Holmes’s gap-filling concept and argue that there will always be factual circumstances beyond the comprehension of existing precedent, requiring judges to make forward looking law with the aim of bettering social welfare.

It is clear that if the judiciary is to maintain control over the expansion of DNA profiling, then non-intrusive DNA collection must be accommodated. “Constitutional doctrines have life cycles. They are born of practical need, flourish in an atmosphere of general utility, and decline as changing conditions drain them of their vitality.” In order for the intrusiveness and public exposure doctrines to remain relevant in

143. Grey, supra note 124, at 22.
144. Id.
the DNA context, gaps in the law must be mended to permit these doctrines to evolve alongside technological advancement. However, if the policies underlying the intrusiveness and public exposure doctrines have disappeared in the non-intrusive DNA collection context, then these doctrines are rightly characterized as "survivals," and reform should come from the legislature.

One way for courts to fill the gap in Fourth Amendment protection between intrusive and non-intrusive DNA collection would be to cease defining intrusiveness by the physicality of the collection method, but rather by the sensitive nature of the material collected.146 This shift is the pragmatic choice because it is the most defensive of an individual’s genetic privacy and justifies the limitation on the basis of the protection sought. However, this is a fine line because it effectively alters the analysis from traditionally Fourth Amendment protected bodily integrity to the sort of "generalized privacy right ‘emanating’ from the penumbras of the Constitution” dismissed as principally unfounded by Justice Scalia in Ferguson.147

In the alternative, perhaps things have gone full circle to the point where the pre-Katz property-trespass paradigm is more appropriate and DNA should be viewed “as the property of its originator.”148 This alternative is reminiscent of the Court’s reliance on pre-Katz precedent in response to the technological advancement at issue in Kyllo.149 However, the feasibility of this alternative is diminished because if the unintentional shedding of skin cells is characterized as an abandonment, then additional limitations would need to be placed on the public exposure doctrine in order to prevent law enforcement from utilizing technological advancements that will permit the collection of the public’s skin cells from public areas unprotected by general private-property laws.

146. See United States v. Kincade, 379 F.3d 813, 873 (9th Cir. 2004) (Kozinski, J., dissenting) (arguing that it is important to recognize that the Fourth Amendment intrusion “is not primarily the taking of the blood, but seizure of the DNA fingerprint and its inclusion in a searchable database”), cert. denied, No. 04-7253, 2005 U.S. LEXIS 2505 (Mar. 21, 2005).
147. Ferguson v. City of Charleston, 532 U.S. 67, 76 (2001) (Scalia, J., dissenting); see supra note 42 and accompanying text for further discussion.
148. See Will, supra note 87, at 139-41.
C. The Populist Approach: The Call for Legislation

Populist majoritarianism is the belief that “[i]f democracy is to reign, the people must prevail.” Populist majoritarians seek a larger role for the elected branches in determining constitutional meaning where the people, through their elected representatives, settle controversial cases of constitutional meaning. Accordingly, populists adopt Holmes’ theory of self-restraint, relegating the office of judge to the application of preexisting law to facts, and finding that “[t]he legislator alone is authorized to make new law based on policy and anticipated consequences.” Specifically, populists believe that “personal and partial judicial opinions about policy and fairness have no proper place in the decisional process.” To them, judicial activism imposes “the will of the ‘nine old men’ on the prime representatives of the people, the legislature.” It is important to note that the populist approach is not results-oriented. As celebrated constitutional scholar Mark Tushnet asserts, populism “means the enactment into public policy of the people’s views, whatever they happen to be.” Consequently, populist constitutionalism can be viewed as “the way we explore our national self-identity in the political realm.”

The populist approach argues that the Court inappropriately partakes in “undignified partisan controversy” when it uses its office to take sides in “the political conflicts of the age.” For this reason, majoritarianism is commonly associated with the conservative theory that “sweeping judicial solutions” to constitutional controversies are inappropriate forms of “social engineering” where the Court is “acting as a superlegislature.” There are several considerations that lend credence to the populist argument. First, courts are “confined within the bounds of a particular record” and therefore only “fragments of a social problem are seen through the narrow windows of a litigation.”

151. Id. at 113.
152. Grey, supra note 124, at 21.
153. Id.
154. McWhinney, supra note 123, at 845.
156. Id. at 554.
157. McWhinney, supra note 123, at 845.
158. Lipkin, supra note 150, at 124.
Second, the Court is “an unelected and virtually unaccountable institution.” For these reasons, Tushnet emphasizes that courts make mistakes and often resolve constitutional controversies in a manner that does not truly reflect the will of the majority, either by under-enforcing “values that legislatures would vigorously enforce” or over-enforcing other values, “thereby depriving the people of our power to govern ourselves.”

If the Supreme Court were to adopt an activist approach resembling any of this Note’s proposed new *Katz* paradigms, then it would risk the appearance of results-oriented decision-making. It is for this very reason that Justice Scalia characterized *Katz* as a “notoriously unhelpful test,” which has only established that the “‘expectations of privacy’ that society is prepared to recognize as ‘reasonable’ bear an uncanny resemblance to those expectations of privacy that this Court considers reasonable.” In light of the equally compelling policy interests in disagreement over the expansion of the CODIS system, the empirical question is anything but clear cut. Rather than permitting the Court to conduct an independent determination, perhaps the “proper role [of] judges in a democratic society” would be to leave such “important questions” of policy to the “good judgment, not of [the] Court, but of the people through their representatives in the legislature.”

Furthermore, the legislature is in a better position to implement genetic privacy safeguards to further protect sensitive genetic information from being exploited. Even if the Supreme Court granted certiorari on a non-intrusive DNA collection case and multiple amicus curiae briefs were filed, the Court’s holding would still be limited to the facts in the record. Conversely, Congress can engage in a more extensive fact-finding initiative and field the concerns of a wider range of parties with direct political influence on the substance of proposed legislation. One safeguard that Congress is particularly better suited to
address than the judiciary is the harmonization of state and federal DNA statutes under a governing security provision—either by "front-loading" and confining the government to "collecting and retaining the minimum of information that is needed for identification purposes," or "back-loading" and ensuring that the government keeps the information "in its own hands... to use it only as authorized." It is not the goal of this Note to propose what such legislation should look like, but merely to suggest that the legislature is best equipped to create new laws addressing the constitutionality of non-intrusive DNA collection, alleviate CODIS critics' concerns, and permit our national identity to dictate precisely what "reasonable expectations of privacy" entail.

IV. CONCLUSION

As the legality of DNA collection and the parameters of the CODIS system continue to be challenged across the country, we must be mindful of the technological advancements likely to come to fruition in the near future. The current body of precedent has retained a single-minded focus on the limitations the Fourth Amendment places on the collection and storage of DNA profiles and samples. This authority is at risk of becoming moot shortly after the time of its inception due to foreseeable challenges to the scope of the Fourth Amendment apparent on the horizon.

In order to set lasting limitations on the collection, use, and storage of DNA profiles and samples, change is necessary. The Supreme Court's current constitutional doctrines defining what constitutes a search requiring Fourth Amendment protection do not contemplate the ability to collect sensitive genetic information without any intrusion into an individual's bodily integrity or offense to personal dignity. If these doctrines are to remain vital, then they too must evolve along with the technology that defies them.

However, this evolution may not be possible on the authority of the Katz principle and its progeny without the judiciary engaging in unwarranted judicial activism and speculating on what our nation's reasonable expectations of privacy are on the basis of personal policy preferences. If this is the case, then the responsibility for creating the contours of law enforcement's permissible use of DNA should rest with the legislature. Unquestionably, universal governing provisions must be established to safeguard against the potential misuse of highly sensitive

166. See Kaye, supra note 87, at 506.
genetic information. Yet ultimately, the controversial questions over whether non-intrusive DNA collection constitutes a search within the scope of Fourth Amendment protection, and which members of our society should have their profiles included in the CODIS database, should be decided by edifying the public of the compelling interests on both sides of the debate and permitting the collective voice of the democratic process to speak.

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* J.D. candidate, 2006, Hofstra University School of Law. I would like to thank the entire membership of the Hofstra Law Review for their professionalism and the honor of being published in their fine journal. I am indebted to Professor Alafair S. Burke for her thoughtful guidance as faculty advisor. I am grateful for the friendship of Michael Bojbasa, Daniel Hudson and James DeGloria, my brothers in battling the rigors of legal education. I thank Maura Duffy for her love, support and for selflessly standing by me. Most importantly, I thank my family: Ann, Anthony, Michael and Buster Alfano, Grandmas Esther and Anna, and Aunts Jo-Jo and Gretchen, for encouraging me to strive for my goals ("to thine own self be true") and remain humble in my successes.