

On the “Considered Analysis” of Collecting DNA Before Conviction

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ABSTRACT

For nearly a decade, DNA-on-arrest laws eluded scrutiny in the courts. For another five years, they withstood a gathering storm of constitutional challenges. In *Maryland v. King*, however, Maryland’s highest court reasoned that usually fingerprints provide everything police need to establish the true identity of an individual before trial and that the state’s interest in finding the perpetrators of crimes by trawling databases of DNA profiles is too “generalized” to support “a warrantless, suspicionless search.” The U.S. Supreme Court reacted forcefully. Chief Justice Roberts stayed the Maryland judgment, writing that “given the considered analysis of courts on the other side of the split, there is a fair prospect that this Court will reverse the decision below.” The full Court then granted a writ of certiorari. This essay examines the opinions listed by the Chief Justice and finds their analysis incomplete. I outline the Fourth Amendment questions that a fully considered analysis must answer, identify questionable dicta on the definition of “searches” and “seizures” in the opinions, describe a fundamental disagreement over the analytical framework for evaluating the reasonable warrantless searches or seizures, and criticize a creative compromise in one of the opinions that would allow sample collection without DNA testing before conviction. I conclude that in *King*, the Supreme Court not only must assess the actual interests implicated by pre-conviction collection and profiling of DNA, but it also should articulate the appropriate framework for evaluating the reasonableness of warrantless searches in general.

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This Essay benefitted from a faculty workshop at the ASU Sandra Day O’Connor College of Law sponsored by the ASU Center for Science, Technology, and Innovation and from comments by Orin Kerr.

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INTRODUCTION

For nearly a decade, DNA-on-arrest laws eluded scrutiny in the courts.¹ For another five years, they withstood a gathering storm of constitutional challenges.² They suffered a stunning blow, however, when Maryland's highest court effectively struck down the state's law³ providing for routine DNA collection and analysis before a conviction (DNA-BC). The major rationale for such laws is that the state can compare an arrestee's DNA identification profile⁴ to a database of profiles from crime scenes. Thus, when Alonzo King, Jr., was arrested and charged with an assault in 2009, the state collected a sample of his DNA as mandated in its statute, derived an identification profile without inspecting more privacy-laden parts of his genome, and found a match in the state database for unsolved crimes. Based on evidence derived from this database hit, the state charged King with a 2003 first-degree rape.⁵ King moved, unsuccessfully, to suppress the DNA evidence linking him to that rape. Before Maryland's intermediate court could hear King's appeal, the state's highest court acted to decide the case.⁶ It reasoned that usually fingerprints provide everything police need to establish the true identity of an individual before trial⁷ and that the state's interest in finding the perpetrators of unsolved crimes by trawling databases of DNA profiles is too "generalized" to support "a warrantless, suspicionless search."⁸

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1. No published opinions appeared from the enactment of the first law in Louisiana in 1997 through 2005. See David H. Kaye, *The Constitutionality of DNA Collection Before Conviction: An Updated Scorecard*, FORENSIC SCI. STAT. & LAW (Nov. 10, 2012, 10:59 PM), <http://for-sci-law-now.blogspot.com/2012/11/the-constitutionality-of-dna-collection.html>.
 2. The only appellate defeat before 2012 came in *In re C.T.L.*, 722 N.W.2d 484 (Minn. Ct. App. 2006).
 3. MD. CODE ANN., PUB. SAFETY §§ 2-501 to 2-514 (LexisNexis 2011).
 4. The profile is a list of twenty-six numbers that give the lengths of selected short tandem repeats (STRs), which constitute a minuscule fraction of the genome. See DAVID H. KAYE, THE DOUBLE HELIX AND THE LAW OF EVIDENCE 187–91 (2010). These numbers do not seem to be predictably related to external traits or health status. Brief of Genetics, Genomics, and Forensic Sci. Researchers as Amici Curiae in Support of Neither Party, *Maryland v. King*, No. 12-207 (U.S. Dec. 28, 2012); D.H. Kaye, *Please, Let's Bury the Junk: The CODIS Loci and the Revelation of Private Information*, 102 NW. U. L. REV. COLLOQUY 70 (2007), <http://www.law.northwestern.edu/lawreview/colloquy/2007/25>.
 5. *King v. State*, 42 A.3d 549, 553–54 (Md. 2012).
 6. *Id.* at 555.
 7. The Maryland Court of Appeals held the law was unconstitutional as applied to an arrestee for whom the state had no "problems whatsoever identifying accurately . . . through traditional booking routines." *Id.* at 579.
 8. *Id.* at 578.

The U.S. Supreme Court reacted forcefully. Even before the Court met to consider granting a writ of certiorari,⁹ Chief Justice Roberts stayed the Maryland judgment.¹⁰ His in-chambers opinion stated that, “given the considered analysis of courts on the other side of the split, there is a fair prospect that this Court will reverse the decision below.”¹¹ In chronological order, the opinions that received the Chief Justice’s approbation come from Virginia (*Anderson v. Commonwealth*¹²), the Third Circuit (*United States v. Mitchell*¹³), and the Ninth Circuit (*Haskell v. Harris*¹⁴). The Chief Justice cited the fourth opinion—from the Arizona Supreme Court (*Mario W. v. Kaipio*¹⁵)—separately, as it straddles the divide with a no-peeking rule that permits collection but not testing of DNA before conviction.¹⁶ I shall call these four cases the “stay-opinion cases.”

This Essay briefly examines these opinions. My objective is limited. I do not consider whether these cases were decided correctly or incorrectly. Rather, I ask whether the opinions supply a fully “considered analysis” of the Fourth Amendment as it applies to arrestee DNA databases. I argue that the Supreme Court will need to engage in a deeper and more precise analysis, and I indicate how that analysis might proceed.

The Fourth Amendment comprises two clauses. The Reasonableness Clause grandly guarantees “[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures.”¹⁷ The Warrant Clause specifies that “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.”¹⁸ A thorough analysis of the Amendment as applied to DNA-BC therefore requires the resolution of three issues: (1) Is there a “search or seizure”? (2) If so, what rule or standard determines the reasonableness of that search or seizure? (3) Under this rule or standard, is the particular system for DNA-BC reasonable?

With these questions in mind, Part I discusses the three opinions upholding DNA-BC in its entirety. It shows that these opinions do not convincingly resolve the first two questions and that they treat the third with varying de-

9. *Maryland v. King*, 133 S. Ct. 594 (2012).

10. *Maryland v. King*, 133 S. Ct. 1 (2012) (Roberts, C.J.).

11. *Id.*

12. 650 S.E.2d 702 (Va. 2007), *cert. denied*, 553 U.S. 1054 (2008).

13. 652 F.3d 387 (3d Cir. 2011) (en banc), *cert. denied*, 132 S. Ct. 1741 (2012).

14. 669 F.3d 1049, *reh'g en banc granted*, 686 F.3d 1121 (9th Cir. 2012).

15. 281 P.3d 476 (Ariz. 2012).

16. *King*, 133 S. Ct. at 2 (citing *Mario W. v. Kaipio*, 281 P.3d 476 (Ariz. 2012)).

17. U.S. CONST. amend. IV.

18. *Id.*

degrees of care. Part II examines the Arizona compromise that allows DNA collection—but not profiling—prior to conviction or after failure to appear for an adjudication. It argues that the doctrinal analysis in *Mario W.* departs from existing Fourth Amendment law and does not meet the concern, expressed by the dissenting judges in the other stay-opinion cases (and by the majority in *King*), that DNA samples will be used to acquire highly private information rather than merely an identifying profile.

I. THE “CONSIDERED ANALYSIS” IN *ANDERSON, HASKELL,*
AND MITCHELL

A. Search or Seizure Points

As many as five steps in the process of constructing and using DNA databases conceivably might qualify as a search or seizure and hence trigger Fourth Amendment protections. These are (1) the collection of physical samples from the body, (2) the chemical or physical extraction and testing of the DNA molecules in the sample to ascertain their composition at various locations (“loci”), (3) the database entry of the resulting DNA profiles, (4) the trawls of the database for matches to profiles from crime-scene samples, and (5) the long-term storage of the physical samples. The attacks on DNA-BC in the main stay-opinion cases are directed only at the first step in the database process—the acquisition of the sample.¹⁹ This is familiar territory, for innumerable opinions involving DNA samples collected after conviction (DNA-AC) have denominated the usual methods of DNA sampling (from the interior of the body) as searches. In contrast, the later four steps affect the reasonableness of the initial and contested DNA collection but do not themselves constitute searches or seizures. Nevertheless, dicta in the stay-opinion cases depart from the Supreme Court’s approach to defining “searches or seizures.” To demonstrate this, a brief description of that approach is in order.

19. At the other end of the spectrum, a number of cases hold or imply “that the government’s retention and matching of [a] profile against other profiles in CODIS [COmbined DNA Index System] does not violate an expectation of privacy that society is prepared to recognize as reasonable, and thus does not constitute a separate search under the Fourth Amendment.” *Boroian v. Mueller*, 616 F.3d 60, 67–68 (1st Cir. 2010). For a defense of this result, see David H. Kaye, *DNA Database Trawls and the Definition of a Search in Boroian v. Mueller*, 97 VA. L. REV. IN BRIEF 41 (2011), <http://www.virginialawreview.org/inbrief/2011/08/04/kaye.pdf>.

1. Defining Searches and Seizures

An individual's Fourth Amendment interests with respect to searches, on the one hand, and seizures, on the other, are distinct.²⁰ The modern doctrine for defining a search begins with the well-known formula articulated by Justice Harlan in *Katz v. United States*.²¹ By placing a recording device on the top of a public telephone booth, the FBI overheard Katz transmit gambling information in violation of federal law. Katz argued that this monitoring was a search even though the Court had previously required a "physical penetration"²² of a "protected area"²³—that is to say, a trespass.²⁴ *Katz* jettisoned these requirements and substituted a less confining "reasonable expectation of privacy" standard.²⁵ Katz's solitary occupancy of the booth to engage in private conversations created just such a reasonable expectation and hence made the monitoring a search within the meaning of the Fourth Amendment. And because the government could point to no exception to the established rule that searches conducted without prior judicial approval are unreasonable, the warrantless electronic eavesdropping contravened the Fourth Amendment.²⁶

In the succeeding five decades, the Court has applied the *Katz* formula to a bewildering array of information-gathering techniques and technologies—from aerial overflights²⁷ and photography,²⁸ to electronic tracking devices,²⁹ to thermal imaging,³⁰ to the extraction of bodily fluids for drug³¹ and alcohol³² tests. Most recently, in *United States v. Jones*,³³ a majority of the Court supple-

20. *United States v. Jacobsen*, 466 U.S. 109, 113 (1984).

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

22. *Id.* at 352.

23. *Id.* at 350–51.

24. *Kyllo v. United States*, 533 U.S. 27, 31 (2001). *But see* Orin S. Kerr, *The Curious History of Fourth Amendment Searches*, 2013 SUP. CT. REV. (forthcoming 2013), available at <http://ssrn.com/abstract=2154611> (arguing that although property concepts always were important in defining a search under the Fourth Amendment, the standard view, recounted here, that *Katz* overturned a technical trespass-based test is incorrect).

25. *Katz*, 389 U.S. at 360 (Harlan, J., concurring). *But see* *United States v. Jones*, 132 S. Ct. 945, 951 (2012) (treating *Katz* as supplementing rather than replacing the trespass-based mode of analysis).

26. *Katz*, 389 U.S. at 356–57 (majority opinion).

27. *See* *Florida v. Riley*, 488 U.S. 445 (1989); *California v. Ciraolo*, 476 U.S. 207 (1986).

28. *See* *Dow Chemical Co. v. United States*, 476 U.S. 227 (1986).

29. *Compare* *United States v. Karo*, 468 U.S. 705 (1984), *with* *United States v. Knotts*, 460 U.S. 276 (1983).

30. *See* *Kyllo v. United States*, 533 U.S. 27 (2001).

31. *E.g.*, *Skinner v. Ry. Labor Execs.' Ass'n*, 489 U.S. 602 (1989).

32. *E.g.*, *Schmerber v. California*, 384 U.S. 757 (1966).

33. 132 S. Ct. 945 (2012).

mented the ductile *Katz* standard³⁴ with an historical trespass-based rule.³⁵ This time, the FBI, without a warrant, attached to the underside of a car a device that transmitted its GPS coordinates for twenty-eight days.³⁶ A unanimous Court found this method of acquiring information to be a search. A plurality of four Justices, led by Justice Alito, determined that the lengthy surveillance was a search because it violated a reasonable expectation of privacy under *Katz*.³⁷ Justice Scalia's majority opinion, however, deemed the installation of the GPS tracker to be a search regardless of the duration of the tracking because attaching the device was an eighteenth-century trespass to chattels followed by "an attempt to find something or to obtain information."³⁸ After *Jones*, acquiring information triggers the Fourth Amendment when undertaken (1) in a manner that violates a reasonable expectation of privacy or (2) by a common law trespass to property or chattels. Only these two types of information-gathering methods are searches that trigger Fourth Amendment protections.³⁹

A seizure is a different constitutional animal. It can occur without a search, and a search can take place without a seizure. Indeed, the *Jones* Court rejected the view that the trespass in attaching the GPS device was a seizure of the car.⁴⁰ A seizure deprives a person of the possession of property⁴¹ or prevents an individual from moving away.⁴² The informational aspect that is common to searches need not be present. For example, jailing an individual solely to assure an appearance for an arraignment or a trial is a seizure of the person that triggers the Fourth Amendment's protections even if the arrestee never is searched.⁴³

34. See *Kyllo*, 533 U.S. at 34 ("The *Katz* test—whether the individual has an expectation of privacy that society is prepared to recognize as reasonable—has often been criticized as circular, and hence subjective and unpredictable.").

35. *Jones*, 132 S. Ct. at 953 ("[U]nlike the concurrence, which would make *Katz* the exclusive test, we do not make trespass the exclusive test. Situations . . . without trespass would remain subject to *Katz* analysis." (emphasis omitted)).

36. *Id.* at 945.

37. *Id.* at 964 (Alito, J., concurring) ("[T]he use of longer term GPS monitoring in investigations of most offenses impinges on expectations of privacy. . . . [S]ociety's expectation has been that law enforcement agents and others would not—and indeed, in the main, simply could not—secretly monitor and catalogue every single movement of an individual's car for a very long period.").

38. *Id.* at 951 n.5 (majority opinion) (Scalia, J.).

39. *Id.* ("A trespass on 'houses' or 'effects,' or a *Katz* invasion of privacy, is not alone a search unless it is done to obtain information; and the obtaining of information is not alone a search unless it is achieved by such a trespass or invasion of privacy.").

40. *Id.* at 958 (Alito, J., concurring) ("The Court does not contend that there was a seizure.").

41. "A 'seizure' of property occurs when there is some meaningful interference with an individual's possessory interests in that property." *United States v. Jacobsen*, 466 U.S. 109, 113 (1984).

42. *E.g.*, *Michigan v. Summers*, 452 U.S. 692 (1981) (detaining someone while his house is being searched is a seizure of the person); *Terry v. Ohio*, 392 U.S. 1 (1968) (concluding that an investigatory stop of an individual is a seizure of the person).

43. *E.g.*, *Gerstein v. Pugh*, 420 U.S. 103 (1975).

2. Infelicities in the Stay-Opinion Cases

In 2007, the Virginia Supreme Court became the first major appellate court to uphold the practice of DNA sampling on arrest. In *Anderson v. Commonwealth*,⁴⁴ the court framed the question before it as whether “the taking of a person’s DNA upon arrest for certain crimes constitutes an unconstitutional seizure.”⁴⁵ This phrasing invites confusion. In ordinary speech, removing a small quantity of superficial material from the inside of the cheek certainly is a seizure of that material, but as I have just described, the term has a more technical meaning. Rubbing off some cells that no one will miss probably is not a seizure in this sense. Just as the installation of the GPS tracker in *Jones* did not degrade the vehicle’s performance, the simple removal of surplus cells does not harm the person. The only seizure-type interference comes in requiring the person to sit still for swabbing, but considering that the person already is locked up, the limitation on freedom of movement is minimal. The *Anderson* court recognized as much in a one-sentence footnote: “While *Anderson* refers to the taking of buccal swabs as a ‘seizure,’ it is more appropriately referred to as a ‘search.’”⁴⁶

That buccal swabbing to gather identifying information is a search is clear from *Cupp v. Murphy*.⁴⁷ *Cupp* held that scraping away suspicious material under the fingernails of a nervous suspect who was in custody was a search (but a reasonable one under the exception to the warrant requirement for exigent circumstances). There is no indication that the Court considered the additional but minimal interference with the freedom of movement of a legitimately detained individual to be a seizure. Thus, in a Second Circuit DNA-AC case, Judge Calabresi carefully explained that “DNA indexing statutes, because they authorize *both* a physical intrusion to obtain a tissue

44. 650 S.E.2d 702 (Va. 2007).

45. *Id.* at 703.

46. *Id.* at 706 n.2 (citing *Skinner v. Ry. Labor Execs.’ Ass’n*, 489 U.S. 602, 616–17 (1989); *Cupp v. Murphy*, 412 U.S. 291, 295 (1973); *Schmerber v. California*, 384 U.S. 757, 767–68 (1966); *United States v. Amerson*, 483 F.3d 73, 77 (2d Cir. 2007)). The court in the fourth stay-opinion case repeatedly referred to “the seizure of buccal cells,” but it also referred to the laboratory analysis of the cells as a “*second* search,” arguably implying that the initial seizure actually was a search instead of a seizure. *Mario W. v. Kaipio*, 281 P.3d 476, 481 (Ariz. 2012) (emphasis added).

47. 412 U.S. 291 (1973).

sample *and* a chemical analysis to obtain private physiological information about a person, are subject to the strictures of the Fourth Amendment.”⁴⁸

The other two cases fully upholding DNA-BC barely touched on the question of whether mandatory DNA collection was a search, for the government conceded this threshold point in the Third Circuit case, *United States v. Mitchell*,⁴⁹ and in the Ninth Circuit case, *Haskell v. Harris*.⁵⁰ However, *Mitchell* did not stop with the observation that acquiring blood or other cells from inside the body is a search. It added that “of course” there was a “second ‘search’ at issue,” namely, “the processing of the DNA sample and creation of the DNA profile.”⁵¹ If this dictum were taken at face value and divorced from the mandatory, penetrating body intrusion, it could mean that a range of laboratory tests of evidence acquired from a known suspect or his possessions without any meaningful physical intrusion on his person or property could not ordinarily be performed without probable cause and a warrant. Although the Supreme Court has spoken of a laboratory test for metabolites in urine as if it might be a search on its own,⁵² other cases have rejected the view that tests of physical substances are necessarily searches.⁵³

Thus, the existence of an independent “second search” in *Mitchell* is less obvious than that court suggested. In a colloquial sense, there certainly is a second search. The laboratory is gathering (“searching for”) information about a small number of loci on the strands of the DNA molecules extracted from the cells.⁵⁴ But not every information-gathering act is a search. In calling DNA analysis a search for information, the *Mitchell* court was acknowledging that what transpires in the laboratory “has the *potential* to infringe upon privacy interests” because of “the vast amount of sensitive information that can be

48. *United States v. Amerson*, 483 F.3d 73, 77 (2d Cir. 2007) (emphasis added). For additional discussion of these factors, see David H. Kaye, *The Constitutionality of DNA Sampling on Arrest*, 10 CORNELL J.L. & PUB. POL’Y 455 (2001).

49. 652 F.3d 387, 406 (3d Cir. 2011) (en banc).

50. 669 F.3d 1049, *reh’g en banc granted*, 686 F.3d 1121 (9th Cir. 2012).

51. *Mitchell*, 652 F.3d at 407.

52. *See Skinner v. Ry. Labor Excs.’ Ass’n*, 489 U.S. 602, 617 (1989) (“[Because] chemical analysis of urine . . . can reveal a host of private medical facts . . . , including whether [someone] is epileptic, pregnant, or diabetic . . . [and because] the process of collecting the sample to be tested, which may in some cases involve visual or aural monitoring of the act of urination, itself implicates privacy interests . . . [it follows that] the collection and testing of urine intrudes upon expectations of privacy that society has long recognized as reasonable, . . . and . . . these intrusions must be deemed searches under the Fourth Amendment.”).

53. *See infra* Part II.

54. For a description of the current procedure for deriving a DNA identification profile from cells, see KAYE, *supra* note 4, at 178–91.

mined from a person's DNA."⁵⁵ To mine the DNA for sensitive information (such as disease status or risks) could well be thought to infringe reasonable expectations of privacy. As such, it could turn the second step of DNA databanking into a separate search under *Katz*. But unless this potential infringement of a reasonable expectation of privacy becomes real—unless the police do mine the DNA for more sensitive information than that which is present in the existing profiles stored in DNA identification databases⁵⁶—the colloquial second search is no more than a *potential* second search under the Fourth Amendment.⁵⁷

In sum, *Anderson*, *Haskell*, and *Mitchell* confirm that an entry into the body to acquire information constitutes a search. If the government were to do its DNA sampling so as to avoid the bodily intrusion into the mouth (via a sticky pad applied to the outside of the skin, for example), there would more room for argument under the post-*Katz* cases involving biological searches.⁵⁸ But if the first three stay-opinion cases are to be faulted in their brief discussions of the definitional issue, it is only because of the loose allusions to a “seizure” in *Anderson* and a “second search” in *Mitchell*.

B. Balancing vs. Categorizing

As with the definitional issue of what constitutes a search or seizure, most of the stay-opinion cases quickly pass over the second issue of the doctrinal framework that should be used to ascertain the reasonableness of collecting DNA for database use before conviction. In *Katz*, Justice Stewart explained that “[o]ver and again this Court has emphasized that . . . searches conducted outside the judicial process, without prior approval by judge or magistrate, are per se unreasonable under the Fourth Amendment—subject only to a few specifically established and well-delineated exceptions.”⁵⁹ Yet,

55. *Mitchell*, 652 F.3d at 407 (emphasis added) (quoting *United States v. Amerson*, 483 F.3d 73, 85 (2d Cir. 2007)) (internal quotation marks omitted).

56. On the nature of the information in the current profiles, see *supra* note 4. There are no reported incidents of police performing tests for disease-causing variants of genes or giving samples to health insurers or employers.

57. *Cf.* *United States v. Karo*, 468 U.S. 705, 712 (1984) (“The mere transfer to Karo of a can containing an unmonitored beeper infringed no privacy interest To be sure, it created a potential for an invasion of privacy, but we have never held that potential, as opposed to actual, invasions of privacy constitute searches for purposes of the Fourth Amendment.” (emphasis omitted)).

58. See, e.g., *Ferguson v. City of Charleston*, 532 U.S. 67 (2001); *Skinner v. Ry. Labor Execs.’ Ass’n*, 489 U.S. 602 (1989).

59. *Katz v. United States*, 389 U.S. 347, 357 (1967) (footnote omitted) (citation omitted) (quoting *United States v. Jeffers*, 342 U.S. 48, 51 (1951)) (internal quotation marks omitted).

rather than identifying an appropriate exception, the main stay opinions apply a direct balancing test in which the absence of a warrant and probable cause are merely two considerations among many in the totality of the circumstances.

The *Anderson* opinion's reasoning can be collapsed into a few sentences: The routine booking process includes the taking of fingerprints, which is surely constitutional; DNA sampling is like fingerprinting because it provides evidence of identity without significant physical intrusion; and the balance of individual and state interests therefore allows DNA-BC.⁶⁰ Whether or not one agrees with this conclusion, it leaves the basis for choosing a balancing test—rather than demanding a categorical exception that would apply to warrantless DNA-BC—a mystery.

The majority opinion in the Ninth Circuit's *Haskell v. Harris* fills the gap with but a few sentences. In this class action, the district court had refused to issue a preliminary injunction against the enforcement of California's Proposition 69, which initiated DNA-BC in that state.⁶¹ Over a sharp dissent, the majority concluded that the California law is reasonable within the meaning of the Fourth Amendment in light of the totality of the circumstances.⁶² To justify totality balancing, Judge Smith jarringly proclaimed that this direct weighing of the competing individual and state interests was a consequence of "the Constitution's plain text."⁶³

What plain text? The Fourth Amendment prohibits unreasonable searches or seizures and refers to judicial warrants based on probable cause. It is silent on whether the addition of the Warrant Clause to the proscription of unreasonable searches helps determine which searches are reasonable, and the historical record is "foggy."⁶⁴ As a result, there is much academic debate over the degree to which the Warrant Clause modifies the Reasonableness Clause.⁶⁵

60. *Anderson v. Commonwealth*, 650 S.E.2d 702, 705–06 (Va. 2007).

61. *Haskell v. Brown*, 677 F. Supp. 2d 1187 (N.D. Cal. 2009).

62. The critique of the dissent and the discussion of the majority opinion that follows draws on David H. Kaye, *Drawing Lines: Unrelated Probable Cause as a Prerequisite to Early DNA Collection*, 91 N.C. L. REV. ADDENDUM 1 (2012), <http://www.nclawreview.org/documents/91/addendum/kaye.pdf>.

63. *Haskell v. Harris*, 669 F.3d 1049, 1053 (9th Cir. 2012) (quoting *Pennsylvania v. Mimms*, 434 U.S. 106, 108–09 (1977)).

64. TELFORD TAYLOR, *TWO STUDIES IN CONSTITUTIONAL INTERPRETATION* 24 (1969). For a description of competing theories, see Thomas K. Clancy, *The Framers' Intent: John Adams, His Era, and the Fourth Amendment*, 86 IND. L.J. 979, 983 (2011), and Cynthia Lee, *Package Bombs, Footlockers, and Laptops: What the Disappearing Container Doctrine Can Tell Us About the Fourth Amendment*, 100 J. CRIM. L. & CRIMINOLOGY 1403, 1408 (2010).

65. For a sampling of the contentious literature, see Akhil Reed Amar, *Fourth Amendment First Principles*, 107 HARV. L. REV. 757 (1994), Thomas Y. Davies, *Recovering the Original Fourth*

The Supreme Court has resolved the issue by reading the Warrant Clause into the Reasonableness Clause to derive the categorical rule, articulated in *Katz* and many other cases, that warrantless searches are per se unreasonable.⁶⁶ To be sure, the Court has balanced to derive previously unrecognized categorical exceptions such as the one that allows the limited stop-and-frisk procedure described in *Terry v. Ohio*.⁶⁷ In addition, the Court balances at a programmatic level in a sprawling category of “special needs” or “administrative search” cases that involve interests beyond the collection of evidence for criminal investigations or trials.⁶⁸ Special needs searches thus fall within an established exception to the per se rule. The Supreme Court has resorted to ad hoc balancing in only two difficult-to-justify cases—*United States v. Knights*,⁶⁹ involving a probationer, and *Samson v. California*,⁷⁰ involving a parolee. A considered opinion engaging in totality balancing would have to explain why these cases apply to individuals who have not been convicted and who are not on probation or parole.⁷¹

Haskell barely tries. Proceeding on its premise that every case is appropriate for ad hoc balancing, the majority rejects the categorical approach that would necessitate a special needs showing (or some other exception to the warrant requirement) on the ground that in *Bell v. Wolfish*,⁷² “the Supreme Court even applied the totality of the circumstances test to determine whether strip searches of pretrial detainees were constitutional.”⁷³ Although Justice Rehnquist’s opinion for the Court in *Bell* does speak of the direct balancing

Amendment, 98 MICH. L. REV. 547 (1999), Tracey Maclin, *The Complexity of the Fourth Amendment: A Historical Review*, 77 B.U. L. REV. 925 (1997), and David E. Steinberg, *An Original Misunderstanding: Akhil Amar and Fourth Amendment History*, 42 SAN DIEGO L. REV. 227 (2005).

66. *E.g.*, *Kentucky v. King*, 131 S. Ct. 1849, 1856 (2011); *City of Ontario v. Quon*, 130 S. Ct. 2619, 2630 (2010); *Arizona v. Gant*, 129 S. Ct. 1710, 1716 (2009) (articulating “the basic rule”). The only Supreme Court cases offered to support totality balancing in *Haskell*—namely, *Terry* and *Mimms*—apply the categorical rule. *See* Kaye, *supra* note 62, at 16.

67. 392 U.S. 1 (1968).

68. *See, e.g.*, *New Jersey v. T.L.O.*, 469 U.S. 325, 351 (1985) (Blackmun, J., concurring).

69. 534 U.S. 112 (2001).

70. 547 U.S. 843 (2006).

71. In the DNA-AC context, most circuits have not relied on the balancing appropriate to special needs cases. *See* *United States v. Mitchell*, 652 F.3d 387, 404 (3d Cir. 2011) (en banc) (citing cases). For DNA collection from probationers and parolees, it is easier to invoke *Knights* and *Samson* and their totality balancing. Nevertheless, a case can be made for applying the special needs exception instead. *See* David H. Kaye, *A Fourth Amendment Theory for Arrestee DNA and Other Biometric Databases*, 15 U. PA. J. CONST. L. REV. (forthcoming 2013), available at <http://ssrn.com/abstract=2043259>.

72. 441 U.S. 520 (1979).

73. *Haskell v. Harris*, 669 F.3d 1049, 1054 (9th Cir. 2012).

of interests as if it were the norm for all Fourth Amendment cases,⁷⁴ *Bell* clearly is a special needs case. The need to balance in that case flowed from the government's special interest in safely confining prisoners. To read the case as a blanket repudiation of the per se rule would be extravagant.

Mitchell makes the same mistake. The majority suggests the normal mode of Fourth Amendment analysis is a direct "balancing of competing interests."⁷⁵ It reaches this conclusion without mentioning the veritable wall of cases (like *Katz*) that cannot possibly be described as "[b]alancing the totality of the circumstances."⁷⁶ For the implicit repudiation of all these cases, *Mitchell* cites (without discussion) several Supreme Court cases. One is *Bell*. As we have just seen, however, *Bell* merely is one of many cases that permits balancing only within the exception to the per se rule for special interests such as jail security,⁷⁷ highway safety,⁷⁸ and drug-free schools.⁷⁹

Mitchell also cites *Tennessee v. Garner*.⁸⁰ Yet, the *Garner* Court never discussed the general method for gauging the reasonableness of a search. There was not even a search in that case. The sole Fourth Amendment issue was whether a *seizure*—effected by a police shooting of an unarmed teenager climbing a fence to elude arrest—was reasonable. The state argued that, as long as police have probable cause to arrest, "the Fourth Amendment has nothing to say about *how* that seizure is made."⁸¹ *Garner* rejected this narrow rule about seizures—courts obviously must evaluate whether the level of force is justified under the circumstances. This review of the execution of seizures does not change the rule that searches are per se unreasonable when they lack probable cause and a warrant.⁸²

74. *Bell*, 441 U.S. at 559.

75. *Mitchell*, 652 F.3d at 403.

76. *Id.*

77. *E.g.*, *Florence v. Bd. of Chosen Freeholders*, 132 S. Ct. 1510 (2012).

78. *E.g.*, *Mich. Dep't of State Police v. Sitz*, 496 U.S. 444 (1990).

79. *E.g.*, *Bd. of Educ. v. Earls*, 536 U.S. 822 (2002). For a recent effort to impose a certain structure on these variegated cases, see Eve Brensike Primus, *Disentangling Administrative Searches*, 111 COLUM. L. REV. 254 (2011).

80. 471 U.S. 1 (1985).

81. *Id.* at 7.

82. *Garner* quoted *Michigan v. Summers*, 452 U.S. 692, 700 n.12 (1981), for the proposition that "the key principle of the Fourth Amendment" is reasonableness—"the balancing of competing interests." *Garner*, 471 U.S. at 8. The *Mitchell* court quoted these words as supporting its understanding that warrantless searches are no longer per se unreasonable in the absence of a categorical exception, such as the special needs exception. *United States v. Mitchell*, 652 F.3d 387, 403 (3d Cir. 2011) (en banc). But the issue in *Summers* was whether the owner of a house could be detained without probable cause while the police searched the premises. *Summers* balanced to define the limits of a *Terry*-type temporary stop of a person—one that is less serious than a formal arrest and that therefore might be justified

Finally, *Mitchell* quotes Chief Justice Rehnquist in *Knights* as announcing that the “general Fourth Amendment approach” entails “examining the totality of the circumstances.”⁸³ But rather than demonstrating the overthrow of the categorical rule for searches, the Chief Justice was only quoting his earlier opinion in *Ohio v. Robinette*,⁸⁴ a case rejecting a flat rule that a police officer must advise a driver that he is free to go if the driver’s consent to interrogation is to be valid.⁸⁵ To rely on the dicta in *Knights* as proving that totality balancing suddenly extends beyond searches of probationers, to all searches under all circumstances, only begs the question of whether the type of balancing in *Knights* should be applied to DNA-BC. It is, of course, possible that a majority of the Supreme Court will agree to scuttle the per se rule for warrantless searches (and that Chief Justice Rehnquist in *Bell*, *Robinette*, and *Knights* was seeking to lay the groundwork for just such a result), but surely the Justices cannot use the logic of *Haskell* and *Mitchell* that this already has happened to justify such a transmogrification.

King thus offers the Court the opportunity to clarify its current thinking on the interaction between the Reasonableness and Warrant Clauses. Demanding a judicial warrant except in a limited set of cases for which an established exception to the warrant requirement applies provides far more guidance to judges than asking them to decide what is reasonable in the totality of the circumstances of individual cases. This framework should not be cast aside casually. In the context of DNA-BC, the Court could uphold (or strike down) mandatory acquisition of DNA for producing profiles for databases by articulating a new exception for biometric data generally—without undermining the need for warrants as a default rule.⁸⁶

C. Applying the Chosen Test

I turn to the third question: Do the stay-opinion cases apply the putatively omnipresent balancing test they have chosen in a well-considered way? *Anderson* does not. It purports to balance without even fully listing the

by something less than probable cause. As such, the sentence in *Summers* does not support dispensing with the established framework of categorical exceptions for searches.

83. *Mitchell*, 652 F.3d at 403 (quoting *United States v. Knights*, 534 U.S. 112 (2001)).

84. 519 U.S. 33 (1996).

85. *Id.* at 40. As with the level of force that is reasonable in making an arrest and the period of time for which residents can be denied access to a dwelling while conducting a search of the premises (*see supra* note 82), “[v]oluntariness is a question of fact to be determined from all the circumstances.” *Robinette*, 519 U.S. at 40.

86. *Kaye*, *supra* note 71.

pertinent interests. Most of the brief opinion simply insists that “the taking of DNA samples” is analogous to “the taking of fingerprints,”⁸⁷ “that DNA samples should be treated like fingerprints,”⁸⁸ and that “[f]ingerprinting an arrested suspect has long been considered a part of the routine booking process.”⁸⁹ *Haskell* and *Mitchell* are less conclusory in their balancing. Both opinions reason that the individual interest in refusing to reveal DNA markers of identity—assuming that they are nothing more than that—is weak.⁹⁰ *Mitchell* and *Haskell* also go some way toward demonstrating that the government’s interests in having DNA profiles as personal identifiers before trial and as possible leads to unsolved crimes are strong in toto.⁹¹ The conclusion that the government’s interests outweigh the individual’s then seems to follow.

The specifics of the balancing analysis, however, require more attention. *Anderson*’s analogy to fingerprints is imperfect. Most obviously, the DNA samples contain a great deal of information that is useful for disease screening or other purposes.⁹² In addition, it is conceivable that some of the loci in the strictly identifying profiles could turn out to convey disease-related or other socially significant information that could harm an individual’s legitimate interests.⁹³ *Mitchell* and *Haskell* clearly recognized these facts. Drawing on various DNA-AC opinions, these courts deemed statutory limitations on discovering or releasing medically relevant DNA information or samples sufficient to protect against misuse.⁹⁴ Likewise, they followed the DNA-AC cases in rejecting as irrelevant to the constitutionality of the current system the mere possibility that DNA identification profiles would come to reveal sensitive personal traits, insisting that “[i]f and when such changes occur, future courts will be available to consider actual facts and applications, and determine whether the law, as then constituted, violates the Constitution.”⁹⁵

87. *Anderson v. Commonwealth*, 650 S.E.2d 702, 705 (Va. 2007).

88. *Id.*

89. *Id.* at 706.

90. *Haskell v. Harris*, 669 F.3d 1049, 1058–62 (9th Cir. 2012); *United States v. Mitchell*, 652 F.3d 387, 406–14 (3d Cir. 2011) (en banc).

91. *Haskell*, 669 F.3d at 1062–65; *Mitchell*, 652 F.3d at 413–16.

92. See, e.g., PETER TURNPENNY & SIAN ELLARD, EMERY’S ELEMENTS OF MEDICAL GENETICS (14th ed. 2012); NAT’L CENTER FOR BIOTECHNOLOGY INFORMATION, GENES AND DISEASE (1998), available at <http://www.ncbi.nlm.nih.gov/books/NBK22183>.

93. Confusion on the extent to which this is probable abounds. See David H. Kaye, Mopping Up After Coming Clean About “Junk DNA” (Nov. 27, 2007) (unpublished manuscript), available at <http://ssrn.com/abstract=1032094>; sources cited *supra* note 4.

94. *Haskell*, 669 F.3d at 1061; *Mitchell*, 652 F.3d at 407–08.

95. *Haskell*, 669 F.3d at 1062; accord *Mitchell*, 652 F.3d at 407 (“[T]he possibility that junk DNA may not be junk DNA some day also does not significantly augment [the defendant’s] privacy interest in the present case.” (second alteration in original) (quoting *United States v. Weikert*,

To this extent, the majority opinions in *Mitchell* and *Haskell* do reflect a considered analysis.

To be sure, dissenting judges in these cases found this analysis of the genetic privacy arguments unsatisfying,⁹⁶ but the opinions did not explicitly analyze the incentives that police have to mine DNA samples for information on medical conditions or to deliver samples to insurers or employers who might be interested in such information (if they were to insure or hire the arrestees). Perhaps the *Mitchell* and *Haskell* courts regarded such scenarios as fanciful, or perhaps they were persuaded that even if the incentives were stronger, the statutory or administrative protections would be sufficient.⁹⁷

But none of the stay opinions explicitly consider whether acquiring DNA for a database system should be invalidated because the system could be made more protective of genetic privacy—for instance, by destroying the samples after the identifying information is recorded. Nevertheless, if totality balancing means that one totals the costs and benefits (broadly understood) of a particular information-gathering system and upholds the system if the sum is positive rather than negative, then the marginal balancing becomes constitutionally irrelevant. That is, if one rejects marginal balancing, as the Supreme Court has, then the dispositive point is that the legislation is, on balance, positive—not that it could be improved on.⁹⁸

In brief, the three main stay-opinion cases do not fully address the issues of definition, methodology, and application that are essential to a considered analysis of the constitutionality of DNA-BC. In *King*, the Court should attend more carefully to the meaning of the terms “search” and “seizure” as they apply to distinct phases of the DNA database systems and should

504 F.3d 1, 13 (1st Cir. 2007)) (internal quotation marks omitted); *id.* at 408 (“[W]e acknowledge the seriousness of Mitchell’s concerns about the possible misuse and future use of DNA samples Should technological advancements change the value of ‘junk DNA,’ reconsideration of our Fourth Amendment analysis may be appropriate.”).

96. *Mitchell*, 652 F.3d at 416 (Rendell, J., dissenting) (“In the face of such heightened privacy interests, statutory restrictions on the use of the DNA collected from suspects who have not been convicted of a crime, though not wholly irrelevant, are not panaceas.”).

97. *Cf.* *Whalen v. Roe*, 429 U.S. 589 (1977) (holding that statutory and operational safeguards against unauthorized use of and access to records of prescriptions kept in a government database adequately protected individual privacy).

98. *See* *City of Ontario v. Quon*, 130 S. Ct. 2619, 2632 (2010) (“This Court has ‘repeatedly refused to declare that only the least intrusive search practicable can be reasonable under the Fourth Amendment.’” (quoting *Vernonia Sch. Dist. 47J v. Acton*, 515 U.S. 646, 663 (1995)) (internal quotation marks omitted)); *United States v. Martinez-Fuerte*, 428 U.S. 543, 557 n.12 (1976) (“The logic of such elaborate less-restrictive-alternative arguments could raise insuperable barriers to the exercise of virtually all search-and-seizure powers.”), *quoted in* *Bell v. Wolfish*, 441 U.S. 520, 559 n.40 (1979).

address the assumption that totality balancing has displaced the framework of categorical exceptions as the generally applicable mode of analysis for ascertaining reasonableness.⁹⁹ Although these recommendations for a more considered doctrinal analysis do not dictate the outcome of that analysis, they would help to construct a more secure foundation than that which the three stay-opinion cases upholding DNA-BC have laid.

II. THE “NO PEEKING” COMPROMISE OF *MARIO W.*

In *Mario W. v. Kaipio*,¹⁰⁰ the Arizona Supreme Court upheld, in part, an Arizona law that required the detention, pending an adjudication of delinquency, of all “juveniles charged with certain offenses and summoned to appear at an advisory hearing” who fail to provide a DNA sample for the state database.¹⁰¹ Vice Chief Justice Hurwitz’s unanimous opinion refreshingly recognizes the primacy of the categorical analysis of reasonableness for warrantless searches but then declines to use this framework because “[m]ost courts considering the constitutionality of DNA sampling and profiling have employed the totality of the circumstances test” and “[t]he parties do not dispute the applicability of the totality of the circumstances test.”¹⁰²

Like *Mitchell*, *Mario W.* then recognizes that the laboratory’s distillation of a DNA profile implicates a Fourth Amendment interest in informational privacy that is distinct from the Fourth Amendment interest in freedom from physical intrusion. But, as we saw in Part I, *Mitchell* did not decide that this so-called second search was in and of itself an infringement of a reasonable expectation of privacy under *Katz*. It merely weighed the informational privacy interest in passing on the constitutionality of the true search itself—the physical intrusion for the purpose of acquiring and using the arrestee’s DNA profile.

In contrast, *Mario W.* severs the connection between the first two steps—physical collection and laboratory testing—in the DNA database technology. It first reasons that because some juveniles will fail to appear for trial, the “minimal”¹⁰³ interest of all juveniles in avoiding the indignity of buccal swabbing¹⁰⁴

99. As previously indicated, balancing under the special needs exception is one option, and a new, categorical exception is another. See *supra* notes 71, 86.

100. 281 P.3d 476 (Ariz. 2012).

101. *Id.* at 476.

102. *Id.* at 480.

103. *Id.* at 481.

104. With respect to the physical intrusion, *Mario W.* treats buccal swabbing as comparable to submitting to fingerprinting in its impact on bodily integrity and freedom of movement.

yields to the state's "important interest in locating an absconding juvenile and, perhaps years after charges were filed, ascertaining that the person located is the one previously charged."¹⁰⁵ Thus, the state may hold the DNA sample—without examining it—until the juvenile flees or the charges are adjudicated. Second, *Mario W.* reasons that the state may not determine the identification profile before the outcome of the trial. Even if the trial leads to an adjudication of delinquency, the state has only a "speculative"¹⁰⁶ interest in waiting a "few weeks [for the] trial."¹⁰⁷ And, if the trial does not establish delinquency, then the delay prevents the innocent juvenile from being treated any differently than innocent juveniles or adults who are not even arrested. The court therefore holds that the state may not peek at the DNA before conviction or flight. In Arizona, then, arrestee DNA is like Schrödinger's Cat, existing only in an indeterminate, unobserved state before the moment of truth.¹⁰⁸

A. "Intimate Personal Information"

This no-peeking rule might make good sense if the laboratory process of extracting DNA strands and characterizing the small number of variable re-

The court states that "[i]t is clear that one arrested on probable cause may be compelled to give fingerprints to law enforcement." *Id.* (citing *Davis v. Mississippi*, 394 U.S. 721, 725–28 (1969)). The Supreme Court, however, has never considered whether fingerprinting is permissible when there is no reason to believe that the prints will be useful in the investigation of the crime for which the individual has been arrested. *Davis* holds that when fingerprints are acquired as a direct result of a false arrest—one for which there was no probable cause and whose only purpose was to gather prints—they are inadmissible as the fruit of an illegal seizure of the person. *Davis*, 394 U.S. at 724.

105. *Mario W.*, 281 P.3d at 482. The court does not respond to the marginal balancing argument in *King* that fingerprints are good enough for this purpose.

106. *Id.* at 483.

107. *Id.* Whether this analysis will endure is open to question. Advances in technology making it possible to analyze profiles in a matter of hours or even minutes easily could extend the period of preconviction use. See Peter M. Vallone, *Inside the Black Box: Testing and Validation of a Rapid DNA Instrument*, FORENSIC MAG., Sept. 28, 2011, <http://www.forensicmag.com/article/inside-black-box-testing-and-validation-rapid-dna-instrument>. In addition, what would happen if the law did not require the samples to be removed from the database in the event that the state does not prove delinquency? Obviously, that would advance the state's law enforcement interests (although it might not be politically popular). The sad fact is that some people who are arrested but not convicted commit later crimes. Of course, the mere fact that law enforcement could gain by monitoring more people cannot make such practices constitutional, but postadjudication retention of juvenile DNA profiles in all cases adds *something* to the state's interests that is missing in the Arizona system of juvenile arrestee DNA databasing. That enhancement would have to be considered in totality balancing for the more extensive system.

108. See COLIN BRUCE, SCHRÖDINGER'S RABBITS: THE MANY WORLDS OF QUANTUM 59 (2004).

gions that compose the identification profile were truly a separate search that exposed information in which the individual could claim a meaningful privacy interest. The Arizona court certainly believed that it was. The opinion speaks of “the serious intrusion on the privacy interests of the Juveniles occasioned by the second search,”¹⁰⁹ which exposes “intimate personal information about the individual.”¹¹⁰

What, then, is this “intimate personal information”? Clearly, DNA identification profiles are personal in that they almost always differ among everyone except for identical twins. In the court’s words, the profiles are “uniquely identifying information about individual genetics.”¹¹¹ But one could say, with equal ease, that fingerprint images supply uniquely identifying information about individual dermatoglyphics.

Like the three main stay opinions, *Mario W.* did not challenge the dogma that the identification profiles stored in DNA databases contain no medically or socially sensitive information. The only “privacy concern”¹¹² in “the nature of the information”¹¹³ that the *Mario W.* court articulated was that the profiles were destined for a database for criminal investigations. The court wrote the following:

The State argues that once it has lawfully obtained the cell samples, the Fourth Amendment provides no greater bar to the processing of those samples and the extraction of the DNA profile than it does to the analysis of fingerprints. But the State’s reliance are obtained, no further intrusion on the privacy of the individual is required before they can be used for investigative purposes. In this sense, the fingerprint is akin to a photograph or voice exemplar. But before DNA samples can be used by law enforcement, they must be physically processed and a DNA profile extracted.

This second search presents a greater privacy concern than the buccal swab because it involves the extraction (and subsequent publication to law enforcement nationwide) of thirteen genetic markers from the

109. *Mario W.*, 281 P.3d at 483.

110. *Id.* at 481.

111. *Id.*

112. *Id.* at 482.

113. *Id.* (quoting Ashley Eiler, Note, *Arrested Development: Reforming the Federal All-Arrestee DNA Collection Statute to Comply with the Fourth Amendment*, 79 GEO. WASH. L. REV. 1201, 1220 (2011)) (internal quotation marks omitted).

arrestee's DNA sample that create a DNA profile effectively unique to that individual.¹¹⁴

Surely, this is a distinction without a difference. Traditionally in fingerprinting, a physical sample (an exemplar) was collected from an arrestee with ink and paper, just as a physical sample is collected for DNA.¹¹⁵ These fingerprint samples, like DNA samples, do not speak for themselves. They must be examined “before [the] samples can be used by law enforcement.”¹¹⁶ Their information lies in ridge flow and minutiae, and these features must be studied by eye or by computer to extract useful data.¹¹⁷ Similarly, the DNA information lies in particular loci, and these features must be ascertained by chemical reactions and computers to extract useful data. What matters is not the optics, the physics, or the chemistry, but the transformation of the sample into identifying information. If extracting this information is a separate search for DNA, then extracting the identifying information also is a separate search for fingerprints. If this so-called second search requires a warrant, flight, or a conviction, then it requires one of those preconditions before fingerprints are digitalized and stored in databases. The argument about a second search in *Mario W.* falls flat.¹¹⁸

B. Cells as Containers

Or does it? The Arizona court offered a second rationale for its no-peeking rule—the container doctrine of Fourth Amendment law. The court argued

114. *Id.* (citation omitted) (citing Erin Murphy, *The New Forensics: Criminal Justice, False Certainty, and the Second Generation of Scientific Evidence*, 95 CALIF. L. REV. 721, 726–30 (2007)).

115. Today, a digital scanner can be used to make electronic images of fingerprints in a single step. NIST EXPERT WORKING GRP. ON HUMAN FACTORS IN LATENT PRINT ANALYSIS, LATENT PRINT EXAMINATION AND HUMAN FACTORS: IMPROVING THE PRACTICE THROUGH A SYSTEMS APPROACH 4–5 (David H. Kaye ed., 2012) [hereinafter NIST REPORT].

116. *Mario W.*, 281 P.3d at 482.

117. NIST REPORT, *supra* note 115, at 4–5.

118. One might try to rescue the argument with a different distinction between DNA samples and profiles, on the one hand, and fingerprint samples and features, on the other. If the information recorded in the databases were sensitive enough to create a reasonable expectation of privacy for DNA profiles but not for fingerprint images, it would be at least plausible to argue that the extraction of information from a DNA sample actually is a search, whereas a fingerprint comparison never rises to this level. *See supra* text accompanying notes 56–57. *Mario W.*, however, makes no claim that the DNA profile contains information above and beyond an individual's identity.

that its novel approach was “consistent with precedent outside the DNA context.”¹¹⁹ Specifically,

[i]n *United States v. Chadwick*, . . . the Supreme Court analyzed separately the legality of the seizure of a steamer trunk and the later opening of the trunk, holding the initial seizure reasonable but finding the later search unconstitutional. Similarly, our court of appeals has held [in *In re Tiffany O*] that even if an officer may be justified under the circumstances in seizing a purse during a *Terry* stop, the same justification does not automatically allow the search of the purse. . . . The later search of the [DNA] sample . . . is, in effect, the analog to opening the steamer trunk in *Chadwick* and the purse in *Tiffany O*. to see what is inside.¹²⁰

The analogy looks good at first blush. People surely have reasonable expectations of privacy in the contents of their luggage and their purses. The Orthodox Jew on Yom Kippur with an apple core in her purse, the Catholic juvenile with birth control pills in hers, and the English literature professor with sleazy novels in her trunk all have a fair claim to freedom from unregulated intrusions into their purses or luggage. The police will all but inevitably espy these legal but embarrassing items if they look through containers without a warrant. The Fourth Amendment protects all of us—the angelic, the quotidian, and the felonious—from arbitrary searches of our possessions.

But compare those searches with the laboratory analysis of epithelial cells. The laboratory extracts a single kind of molecule—DNA. It does not look at the rest of the cell. Within the DNA, it looks only at a tiny fraction of the genome—generating a profile that the readers of database records cannot use to harm or embarrass anyone (except insofar as the person’s DNA matches a crime-scene sample).¹²¹ The situation begins to resemble cases in which dogs that (supposedly) alert only to drugs are used to sniff luggage or other containers—

119. *Mario W.*, 281 P.3d at 481.

120. *Id.* (citing *United States v. Chadwick*, 433 U.S. 1, 13 & n.8 (1977); *In re Tiffany O.*, 174 P.3d 282, 287 (Ariz. Ct. App. 2007)).

121. One qualification is in order. The database custodian could compare two identification profiles to establish that one individual in a database is not the son or daughter of another individual or that two individuals are identical twins. Establishing other family relationships from the current profiles alone is not feasible. See David H. Kaye, *The Genealogy Detectives: A Constitutional Analysis of ‘Familial Searching,’* 51 AM. CRIM. L. REV. (forthcoming 2013), available at <http://ssrn.com/abstract=2043091>.

a practice that the Court held in *United States v. Place*¹²² and *Illinois v. Caballes*¹²³ does not even rise to the level of a search.¹²⁴

Because the government does not look through the parts of the genome in which an individual has a strong expectation of privacy, a better analogy is required. Imagine, then, that every time a person commits a crime, a mysterious being delivers an envelope to the police that always contains exactly two things—a card with the name of an individual who was at the scene of the crime (but not necessarily at the time the crime occurred) and a key to a safe deposit box in that person’s name. Is opening the envelope a search that triggers the need for a warrant or an exception to the warrant requirement? All that the container cases establish is that the police must abide by the constitutional requirements for searches before they can use the key to open the safe deposit box. The box, of course, is the vast part of the human genome that the police do not open in DNA testing for identity. In DNA profiling for law enforcement databases, they only read the name on the card.

Thus, there is a solid argument that the laboratory analysis is not a “later search,”¹²⁵ let alone one that is so destructive of important personal interests as to clearly overcome the various state interests in arrestee DNA databases. The mere fact that testing or inspection produces information about a substance being analyzed is not sufficient to create a reasonable expectation of privacy when that information only links a defendant to a crime. Thus, in *United States v. Jacobsen*,¹²⁶ a federal agent performed a field test on white powder in a damaged Federal Express package that the company inspected and called to his attention. The Court reasoned that because “[a] chemical test that merely discloses whether or not a particular substance is cocaine does not compromise any legitimate interest in privacy,”¹²⁷ the chemical testing was not itself “a search subject to

122. 462 U.S. 696 (1983) (concluding that a dog sniff of airport luggage was not a Fourth Amendment search).

123. 543 U.S. 405 (2005) (concluding that a dog sniff of a car was not a Fourth Amendment search).

124. One might argue that the dog sniff cases do not defeat the *Chadwick* analogy because these cases are limited to the detection of contraband through a system that (ideally) responds to nothing else. Having an identity is not, this counterargument goes, comparable to possessing contraband. There can be no legitimate interest in transporting contraband, but there is nothing wrong with having distinctive physical or chemical features. In *United States v. Edwards*, 415 U.S. 800 (1974), however, the Court held that a laboratory analysis of perfectly legal material—namely, paint chips removed from the clothing of an arrestee—was not a separate search requiring any justification beyond that which warranted the acquisition of the clothing that contained the chips. *Id.* at 803–04.

125. *Mario W.*, 281 P.3d at 481.

126. 466 U.S. 109 (1984).

127. *Id.* at 123.

the Fourth Amendment.”¹²⁸ A bare desire to avoid being linked to a crime (at least through a method that is highly accurate) deserves no Fourth Amendment protection. Because DNA laboratories do not rummage through the genome for information that merits protection, the container cases are inapposite. When the data acquisition procedure is sufficiently narrow in its scope, as in *Jacobsen*, *Place*, and *Caballes*, it is not a search. The distillation of the data from the biological sample therefore is not a second search, even though, as *Mario W.* rightly observes, it implicates distinct interests from swabbing the cheek or pricking the finger of an arrestee. The DNA profile may be unique, and it certainly is an inherited characteristic of the individual, but not all that is genetic and unique is “intimate personal information” that merits constitutional protection.

CONCLUSION

The four opinions said to provide a considered analysis of the constitutionality of DNA collection and databasing before conviction do not supply the final analysis. The three main opinions lack precision in defining a search or seizure; they invoke a balancing standard on the basis of a questionable understanding of the place of balancing in Fourth Amendment analysis; and the balancing they undertake is somewhat circumscribed. The fourth opinion avoids some of these difficulties but then perceives “intimate personal information” where none is present and misapplies the Supreme Court’s container cases to that information.

In *King*, the Supreme Court will have to delve more deeply into the three questions I have identified. It must evaluate the actual interests implicated by preconviction searches, properly defined; articulate the appropriate framework for evaluating the reasonableness of warrantless searches in general; and attend to the complexities in applying that framework to the biology of DNA identification tests and to the limited information recorded in DNA databases. An opinion that accomplishes these tasks should supply not only a truly “considered analysis” of the constitutionality of DNA-BC but also much needed guidance on the limits of totality balancing in all Fourth Amendment cases.

128. *Id.* at 124.