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WHY SO CONTRIVED? FOURTH AMENDMENT BALANCING, PER SE RULES, AND DNA DATABASES AFTER *MARYLAND V. KING*

DAVID H. KAYE*

In Maryland v. King*, 133 S. Ct. 1958 (2013), the Supreme Court narrowly upheld the constitutionality of routine collection and storage of DNA samples and profiles from arrestees. In doing so, it stepped outside the usual framework that treats warrantless searches as per se unconstitutional unless they fall within specified exceptions to the warrant and probable cause requirements. Instead, the Court balanced various individual and state interests. Yet, as regards the state interests, the Court confined this direct balancing analysis to the perceived value of using DNA to inform certain pretrial decisions. Oddly, it avoided relying directly on DNA's more obvious value in generating investigative leads in unsolved crimes.*

This Article suggests that this contrived analysis resulted from the structure of existing Fourth Amendment case law (and perhaps a desire to avoid intimating that a more egalitarian and extensive DNA database system also would be constitutional). It demonstrates that the opinion does not support a "no lines" system of ad hoc judgments about the reasonableness of every search using the totality of the circumstances. Recognizing that the existing framework of categorical exceptions to the warrant requirement diverges from an older "warrant preference" rule that demands a warrant whenever feasible, the Article shows that King *leaves the current per se framework largely intact.*

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Nevertheless, this Article questions the resort to direct balancing. It presents a more coherent doctrinal framework for scrutinizing not just DNA profiling, but all forms of biometric data collection and analysis. In this regard, it notes that the dissenting King *opinion overstates the differences between fingerprinting and DNA profiling as currently practiced. Finally, it suggests that the cramped reasoning in both opinions limits the implications of the case for more aggressive DNA database laws—ones that cover more crimes, more people, more loci, and more methods for acquiring DNA samples.*

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INTRODUCTION

In *Maryland v. King*,[1] the Supreme Court rejected a constitutional challenge to the practice of routinely collecting DNA from arrested individuals.[2] A bare majority of five Justices effusively endorsed the

[1] 133 S. Ct. 1958 (2013).

[2] *Id*. at 1980. A similar but shorter description of the case than the one provided here can be found in David H. Kaye, *What the Supreme Court Hasn't Told You About DNA Databases*, PROMEGA CORP. (2013), *available at* http://goo.gl/CkjEVy.

acquisition of DNA samples for "identification" before conviction (DNA-BC).[3] In response, four dissenting Justices called the opinion a precedent-shattering and "scary"[4] foundation for "the construction of . . . a genetic panopticon"[5] that could gaze into the DNA of airline travelers, motorists, and public school students.[6]

The case began when police in Maryland arrested Alonzo King for menacing people with a shotgun.[7] Following the arrest, they took his picture, recorded his fingerprints—and swabbed the inside of his cheeks.[8] When checked against Maryland's DNA database, his DNA profile led to the discovery that six years earlier, King had held a gun to the head of a fifty-three-year-old woman and raped her.[9] Before the DNA match, the police had no reason to suspect King of that crime. Lacking probable cause—or even reasonable suspicion—they did not rely on a judicial order to swab his cheek. They relied on a state law that mandated collection of DNA from all people charged with a crime of violence or burglary.[10]

King appealed the resulting rape conviction.[11] He argued that the DNA collection deprived him of the right, guaranteed by the Fourth Amendment to the Constitution, to be free from unreasonable searches or seizures.[12] Maryland's highest court agreed.[13] It held that except in the rarest of circumstances where a suspect's true identity could not be established by conventional methods—the court gave the example of a face transplant[14]—forcing an arrestee to submit to DNA sampling was unconstitutional.[15]

The state petitioned the Supreme Court for review.[16] Over and over, the Court had denied requests from convicted offenders and, more recently,

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[3] *See King*, 133 S. Ct. at 1966 ("The advent of DNA technology is one of the most significant scientific advancements of our era."); *see also infra* text accompanying notes 52, 61, and 72.

[4] *Id*. at 1989 (Scalia, J., dissenting).

[5] *Id*.

[6] *Id*.

[7] *Id.* at 1966 (majority opinion).

[8] *Id.*

[9] *See* King v. State, 42 A.3d 549, 553–54 (Md. 2012).

[10] *Id.* at 552, 553; *see also* MD. CODE ANN., PUB. SAFETY, § 2-504(a)(3)(i) (LexisNexis 2011).

[11] *King*, 42 A.3d at 555.

[12] *See id*.

[13] *See id.* at 555–56.

[14] *Id.* at 580 n.35.

[15] *See id.* at 580.

[16] *See* Maryland v. King, 133 S. Ct. 1, 2 (2012) (Roberts, C.J., in chambers) (granting a stay of judgment pending a likely grant of certiorari).

from arrestees to address the legality of state and federal laws mandating routine collection of their DNA. But this case was different. Never before had a state supreme court or a federal appellate court deemed a DNA database law unconstitutional.[17] Even before the Court met to consider whether it would review the case, Chief Justice John Roberts stayed the Maryland judgment.[18] His chambers opinion stated "there is a fair prospect that this Court will reverse the decision below"[19] and found that "the decision below subjects Maryland to ongoing irreparable harm."[20]

The Chief Justice's prediction proved correct. But the margin of victory was as narrow as it could be, and the majority opinion leaves important questions unresolved. Moreover, the dissenting Justices issued a biting opinion importuning the Court "some day"[21] to repudiate its "incursion upon the Fourth Amendment."[22] Indeed, when Justice Anthony Kennedy announced the opinion of the Court, Justice Antonin Scalia invoked the rare practice of reading a dissent aloud. For eleven minutes, he mocked the majority's defense of Maryland's law as a means of identifying arrestees.[23] "[I]f the Court's identification theory is not wrong, there is no such thing as error," he railed.[24] As he and the three Justices who joined his dissenting opinion (Justices Ruth Bader Ginsburg, Sonia Sotomayor, and Elena Kagan) saw it, the majority's reasoning "taxes the credulity of the credulous."[25]

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[17] *See* David H. Kaye, *On the "Considered Analysis" of Collecting DNA Before Conviction*, 60 UCLA L. REV. DISC. 104, 106 (2013) [hereinafter Kaye, *"Considered Analysis"*]. The only appellate defeat before 2012 came in *In re C.T.L.*, 722 N.W.2d 484 (Minn. Ct. App. 2006). *See* David H. Kaye, *The Constitutionality of DNA Collection Before Conviction: An Updated Scorecard*, FORENSIC SCI. STATISTICS & LAW (Mar. 30, 2013), http://goo.gl/D4b4Dl (listing earlier cases in which courts found DNA database laws constitutional).

[18] *See King*, 133 S. Ct. at 3.

[19] *Id.*

[20] *Id*. The Chief Justice maintained that "[a]ny time a State is enjoined by a court from effectuating statutes enacted by representatives of its people, it suffers a form of irreparable injury." *Id*. (quoting New Motor Vehicle Bd. v. Orrin W. Fox Co., 434 U.S. 1345, 1351 (1977) (Rehnquist, J., in chambers)). But the notion that every court order that blocks enforcement of a duly enacted law works an irreparable injury seems extravagant. *See* David H. Kaye, *Supreme Court to Review DNA Swabbing on Arrest??*, FORENSIC SCI. STATISTICS & LAW (July 31, 2012), http://goo.gl/ugxcaG.

[21] Maryland v. King, 133 S. Ct. 1958, 1990 (2013) (Scalia, J., dissenting).

[22] *Id*. at 1989–90.

[23] *See* Joan Biskupic, *Analysis: With Trademark Vigor, Justice Scalia Dissents in DNA Case*, REUTERS (June 3, 2013, 3:40 PM), http://goo.gl/T5UhRd; Joan Biskupic, *Colorful Dissent Is in Scalia's DNA*, COLUMBUS DISPATCH (June 4, 2013, 8:24 AM), http://goo.gl/gkalGW.

[24] *King*, 133 S. Ct. at 1986.

[25] *Id*. at 1980.

The popular press and bloggers seized on the dissent's portrayal of the Court's opinion.[26] One trenchant journalist asked, "Why did Kennedy write his opinion in a way that makes him sound like the last guy on Earth to discover Law & Order?"[27] Why indeed? Justice Kennedy knew perfectly well that DNA-BC was being used to solve crimes. That was why the Chief Justice had granted the stay. It was why Justice Samuel Alito had flagged the case during the oral argument as "perhaps the most important criminal procedure case that [the Supreme] Court has heard in decades."[28] It was why the first words from Maryland's Deputy Attorney General at oral argument were "Mr. Chief Justice, and may it please the Court: Since 2009, when Maryland began to collect DNA samples from arrestees charged with violent crimes and burglary, there had been 225 matches, 75 prosecutions and 42 convictions, including that of Respondent King."[29]

This Article explains why Justice Kennedy's opinion seems so contrived, describes more convincing (and doctrinally adequate) ways to analyze the constitutionality of DNA-BC, and probes the boundaries of the Court's decision. I suggest that the *King* Court treated the primary value of DNA-BC—as a crime-solving tool—as merely incidental to other functions because of the Court's ambivalent jurisprudence on the propriety of balancing state and individual interests to ascertain the reasonableness of searches under the Fourth Amendment. The majority was unwilling or unable to speak clearly about the category of cases in which balancing is permissible. It was unwilling or unable to consider creating an express exception to accommodate the traditional rule that searches that do not fall within defined exceptions necessarily require probable cause and a warrant.[30] As a result, the Court opened itself to the dissent's charge of

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[26] Professor Jeffrey Rosen called the opinion Justice Scalia's wittiest and finest moment—"one of the best Fourth Amendment[] dissents, ever." Jeffrey Rosen, *A Damning Dissent: Scalia's Smartest, Wittiest Ruling of All Time*, NEW REPUBLIC (June 4, 2013), http://goo.gl/RgQzj2. Professor Noah Feldman agreed with the opinion's "libertarian impulse." Noah Feldman, *Court's DNA Ruling Brings U.S. a Step Closer to 'Gattaca*,*'* BLOOMBERG (June 3, 2013, 1:12 PM), http://goo.gl/fvIM8B, but described it as a "pungent" declaration of "Luddite liberty," *id*., "dripping with contempt," Noah Feldman, *Grumpy Old Scalia v. Those Pesky Kids*, BLOOMBERG (June 30, 2013, 11:00 AM), http://goo.gl/qZcjfw.

[27] Emily Bazelon, *They're Coming for Your DNA*, SLATE, http://goo.gl/QpebpT (last visited May 28, 2014).

[28] Transcript of Oral Argument at 35, Maryland v. King, 133 S. Ct. 1958 (2013) (No. 12-207) [hereinafter Transcript].

[29] *Id*. at 3. This was as far as she got before encountering Justice Scalia's sarcasm: "Well, that's really good. I'll bet you if you conducted a lot of unreasonable searches and seizures, you'd get more convictions, too. (Laughter.) That proves absolutely nothing." *Id*.

[30] This possibility was noted in the state's petition for a writ of certiorari but studiously ignored for the remainder of the litigation. *See infra* Part II.C.

blinking reality and of being less than "minimally competent [in] English."[31]

But the dissenting opinion, I maintain, fares no better. For all its barbs and jibes, its turns of phrases, and its literary allusions, the opinion points to no fundamental individual interest or social value that could justify so bilious a condemnation of DNA-BC. It presents an oversimplified description of Fourth Amendment jurisprudence and applies a one-size-fits-all approach to all types of searches of the person, even though these searches vary greatly in their impact on legitimate individual interests and in their value to law enforcement.

In short, the opinions represent a lost opportunity to clarify the law on balancing tests for Fourth Amendment rights and to scrutinize biometric data collection and analysis practices within a more coherent doctrinal framework. To explain and justify this assessment, Part I describes the reasoning of the Justices. It shows how the majority opinion expands an ill-defined set of cases in which a direct balancing of interests determines the reasonableness of certain searches or seizures. It also maintains that the dissent simply drew an arbitrary line that was compelled neither by precedent nor by the interests that should determine the scope of Fourth Amendment protection.

Part II looks more deeply into how the Court reasoned about reasonableness. It describes the existing version of the rule that searches without a warrant and probable cause are unreasonable without an applicable exception—what I call the PSUWE (per-se-unreasonable-with-exceptions) framework. It contrasts this framework to an earlier "warrant preference" rule,[32] regime,[33] model,[34] or view[35] that "the modern Court has

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[31] *King*, 133 S. Ct. at 1985 (Scalia, J., dissenting); *see also infra* note 53.

[32] *See, e.g.*, Tracey Maclin & Julia Mirabella, Book Review, *Framing the Fourth*, 109 MICH. L. REV. 1049, 1061 (2011) ("[T]he 'warrant preference' rule . . . holds that a warrant is a necessary precondition of a reasonable search, unless there is a compelling reason for proceeding without one."); David E. Steinberg, *The Uses and Misuses of Fourth Amendment History*, 10 U. PA. J. CONST. L. 581, 584 (2008) ("According to a number of scholars, the Framers enacted the Fourth Amendment to impose a 'warrant preference rule' favoring, and sometimes mandating, searches pursuant to a specific warrant.").

[33] Carol S. Steiker, *Second Thoughts About First Principles*, 107 HARV. L. REV. 820, 856 n.196 (1994) ("In Professor Amar's scheme of endlessly sliding scales of 'reasonableness,' the rigidity of probable cause has no place. But in a warrant preference regime, a probable cause requirement is necessary to prevent the exceptions to the Warrant Clause from swallowing the rule by giving police *broader* power to search without warrants than with them.").

[34] Thomas K. Clancy, *The Importance of James Otis*, 82 MISS. L.J. 487, 514 (2013) ("There are at least five principal models that the Court currently chooses from to measure reasonableness: the warrant preference model; the individualized suspicion model; the totality of the circumstances test; the balancing test; and a hybrid model giving dispositive weight to the common law." (internal quotation marks and citation omitted)).

increasingly abandoned."[36] After explicating the difference between those two methods for analyzing warrantless searches, it argues that *King* does not obliterate the PSUWE framework. In addition, it suggests that balancing within this framework to create either an exception under the special needs rubric or a categorical exception for certain types of biometric data would have been preferable to the majority's direct resort to balancing.

Part III shows that the opinions in *King*, having been forged in the crucible of incremental, case-by-case adjudication, do not come to grips with obvious variations on Maryland's version of DNA-BC, let alone the most basic questions about DNA databases for law enforcement that society must confront. In this Part, I try to elucidate these questions and to enucleate the opinions' implications for some variations in DNA-BC statutes in light of likely advances in DNA science and technology. This analysis requires us to attend to the nature of the DNA sequences that are, and might be, used in law enforcement databases, the analogy between anatomical biometrics and these DNA sequences, and the adequacy of statutory protections against the misuse of genetic information. I conclude with a brief discussion of the way in which legislatures should think about building DNA databases for law enforcement now that the Court has issued a construction permit.

I. THE COURT'S REASONING: FREE-FORM BALANCING WITH BLINDERS

Given the facts before the Court, *King* determined three things: (1) buccal swabbing is a search subject to the Fourth Amendment; (2) the constitutionality of this kind of search, performed on all individuals arrested for serious crimes, turns on the balance of state and individual interests; and (3) this balance favors the state when the swabbing is done (a) after charges have been filed, (b) the loci tested do not reveal sensitive personal information, and (c) statutory and administrative privacy safeguards are in place.[37] The first point was not in contention, as previous opinions had held that blood and urine sampling—indeed, even scraping a little debris from beneath a fingernail of a suspect[38]—are searches.[39] The real controversies

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[35] Cynthia Lee, *Reasonableness with Teeth: The Future of Fourth Amendment Reasonableness Analysis*, 81 MISS. L.J. 1133, 1134–35 (2012) ("For much of the twentieth century, the Court embraced what is called the warrant preference view of the Fourth Amendment under which the validity of a search turned on whether the police sought prior judicial authorization in the form of a warrant based on probable cause issued by a magistrate judge.").

[36] *Id*. at 1135.

[37] *See generally* Maryland v. King, 133 S. Ct. 1958 (2013); *infra* Parts I.A–C.

[38] Cupp v. Murphy, 412 U.S. 291, 292, 295 (1973).

[39] *See, e.g.*, *id.*; D.H. Kaye, *The Constitutionality of DNA Sampling on Arrest*, 10 CORNELL J.L. & PUB. POL'Y 455, 480 (2001).

in the case were over the second and, to a lesser extent, the third point—whether to balance and what outcome results from balancing.

A. DECIDING TO BALANCE

Justice Kennedy's opinion (joined by Chief Justice Roberts and Justices Clarence Thomas, Stephen Breyer, and Alito) concluded that "the search . . . falls within the category of cases this Court has analyzed by reference to the proposition that the 'touchstone of the Fourth Amendment is reasonableness, not individualized suspicion.'"[40] At first glance, this phrasing is puzzling. The touchstone in *every* case is reasonableness,[41] but a longstanding rule renders searches without probable cause or a warrant automatically unreasonable unless they fall within "a few specifically established and well-delineated exceptions."[42] A related rule renders seizing a person without probable cause unreasonable—subject, again, to various categorical exceptions.[43] Typically, the PSUWE (per-se-unreasonable-with-exceptions) rule suffices to invalidate warrantless searches or detentions without probable cause without any further analysis of the totality of the circumstances. King argued that this per se framework applied in his case and that DNA-BC fits no existing exception.[44]

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[40] *King*, 133 S. Ct. at 1970 (quoting Samson v. California, 547 U.S. 843, 855 n.4 (2006)).

[41] *See, e.g.*, Whren v. United States, 517 U.S. 806, 817 (1996) ("It is of course true that in principle every Fourth Amendment case, since it turns upon a 'reasonableness' determination, involves a balancing of all relevant factors.").

[42] Katz v. United States, 389 U.S. 347, 357 (1967). In some twenty cases since *Katz*, the Court has reiterated the per se rule. *See* Missouri v. McNeely, 133 S. Ct. 1552, 1558 (2013) ("Our cases have held that a warrantless search of the person is reasonable only if it falls within a recognized exception."). It has been called "[t]he Supreme Court's favorite, and oft-repeated, Fourth Amendment maxim." Craig M. Bradley, *Rehnquist's Fourth Amendment: Be Reasonable*, 82 MISS. L.J. 259, 272 (2013). The characterization of the exceptions as "few" and "well-delineated," however, is increasingly difficult to swallow. *See infra* Part II.

[43] *See, e.g.*, Bailey v. United States, 133 S. Ct. 1031, 1037 (2013). *Bailey* delimited the exception that permits "officers executing a search warrant to detain the occupants of the premises while a proper search is conducted," *id.* (internal quotation marks and citation omitted), even though the detention is "without probable cause to arrest for a crime," *id*., and without "particular suspicion that an individual is involved in criminal activity or poses a specific danger to the officers," *id*. at 1037–38.

[44] Brief for Respondent at 14, *King*, 133 S. Ct. 1958 (No. 12-207) ("This Court has only rarely created exceptions to the requirements of a warrant or individualized suspicion, and none of the existing exceptions is applicable here.").

Despite academic criticism of the historical pedigree and value of insisting on warrants whenever possible,[45] the Court accepted the premise that most searches require prior judicial approval or an established exception to the warrant requirement.[46] Rather than identify an existing applicable exception or explicitly devise a new one, however, the Court tried to confine the need for a categorical exception to a subset of all searches, leaving the search before it to be judged under a balancing standard. Thus, Justice Kennedy described the categorical-exception approach as a preference defeasible "[i]n some circumstances such as [w]hen faced with special law enforcement needs, diminished expectations of privacy, minimal intrusions, or the like."[47]

This elliptical description of the circumstances in which the per se rule gives way to direct balancing is reminiscent of the theory of "family resemblances" propounded by the philosopher Ludwig Wittgenstein.[48] Wittgenstein famously argued that some terms, such as "games," do not denote a set of elements with any single property in common, but that the items in question are linked together like "members of a family—build, features, colour of eyes, gait, temperament, and so on and so forth—overlap and criss-cross."[49] Like Wittgenstein, who knew a game when he saw one but who deemed it unnecessary to articulate a common denominator, Justice Kennedy pointed to a family of cases for which direct balancing is appropriate without articulating any essential features of its members.[50]

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[45] The now-classic challenge to the warrant preference rule comes from Akhil Reed Amar, *Fourth Amendment First Principles*, 107 HARV. L. REV. 757, 762 (1994). Professor Amar, joined by Professor Katyal, later applied the notion that there is no historical case for the rule to *Maryland v. King*. Akhil Reed Amar & Neal K. Katyal, *Why the Court Was Right to Allow Cheek Swabs*, N.Y. TIMES (June 3, 2013), http://goo.gl/Y75vcL. For descriptions of the foundations of the rule and some of the academic commentary on it, see *infra* Part II.A.

[46] *See* Maryland v. King, 133 S. Ct. 1958, 1969 (2013) (stating that "[i]n giving content to the inquiry whether an intrusion is reasonable, the Court has preferred some quantum of individualized suspicion . . . [as] a prerequisite to a constitutional search or seizure," but that "[i]n some circumstances, such as [w]hen faced with special law enforcement needs, diminished expectations of privacy, minimal intrusions, or the like, the Court has found that certain general, or individual, circumstances may render a warrantless search or seizure reasonable," because "[t]hose circumstances diminish the need for a warrant" (internal quotation marks omitted)).

[47] *Id.* (internal quotation marks and citation omitted).

[48] LUDWIG WITTGENSTEIN, PHILOSOPHICAL INVESTIGATIONS 36e (P. M. S. Hacker & Joachim Schulte eds., G. E. M. Anscombe et al. trans., Blackwell Publ'g 4th ed. 2009) (1953). This paragraph is adapted from David H. Kaye, Response, Maryland v. King*: Per Se Unreasonableness, the Golden Rule, and the Future of DNA Databases*, 127 HARV. L. REV. F. 39, 42 (2013).

[49] WITTGENSTEIN, *supra* note 48, at 36e.

[50] The opinion suggests that the pointlessness of individualized factual determinations in some settings (as in deciding when to take a fingerprint or a DNA sample from an arrestee

Thus, although the majority was certain that the *King* case was part of this still-small family, the opinion provides little guidance on recognizing other cases that can be said to fall outside the PSUWE analysis.

B. BALANCING TO DECIDE

Having settled on the open-ended balancing standard for ascertaining the reasonableness of the Maryland law, the majority applied it uncritically. After praising "DNA technology [as] one of the most significant scientific advancements of our era,"[51] the Court noted "the need for law enforcement officers in a safe and accurate way *to process and identify* the persons and possessions they must take into custody."[52] To appreciate (and clarify) the Court's understanding of processing and identifying arrestees, two concepts need to be disentangled. The dissent's concern for the English language notwithstanding,[53] there is nothing linguistically sinful in using a single overarching term. But the majority could have been clearer about how each facet of "identification" figures into the balance of interests.

Justice Kennedy used the word "identification" to denote at least two uses of biometric data. The first we can call "authentication-identification,"[54] for it refers to authenticating claims of identity (or establishing true identity). Authentication is the most common application of biometric identifiers. A fingerprint-activated door lock can provide a valid and reliable method for ensuring that only those employees who are authorized to enter can open the lock.[55] Authentication of a person's identity is, of course, a matter of real concern to police, who need to detect escapees, bail jumpers, and other individuals who may have disguised their identity. Photographs, fingerprints, iris scans, retinal patterns, DNA

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who meets the statutory criteria) is an important but not a necessary trait of this family of cases. *See* Kaye, *supra* note 48; *see also infra* Part II.

[51] *King*, 133 S. Ct. at 1966.

[52] *Id.* at 1970 (emphasis added).

[53] Although Justice Scalia claimed that this use of the term "identify" offended proper English speech, *id*. at 1985 (Scalia, J., dissenting), speaking of investigation to identify a culprit creates no dissonance with common parlance or statutory intent. The point that the dissent was making was that laws authorizing DNA collection for "identification" have the primary purpose to allow DNA to be used for identifying individuals to solve crimes, rather than to inform decisions about pretrial custody or to create a permanent record for authentication—although they do or can serve these purposes as well. But what follows from this historical fact about legislative motivation is far less clear than the dissent suggested. *See infra* Part II.

[54] *See* Kaye, *supra* note 48, at 38.

[55] Of course, any pattern recognition device (and especially ones based on a single biometric) can be defeated by extreme measures—a point that has not been lost on writers of thrillers. *See generally, e.g.*, DAN BROWN, ANGELS AND DEMONS (2000) (imagining a murder to obtain a body part to defeat a retina-scanning security system).

polymorphisms, and still more biological traits can be used, singly or in conjunction, for this purpose.[56] There should be little doubt that DNA has some value in a multimodal system for identifying arrestees with biometrics.[57]

However, the Court did not claim that the state's interest in authentication-identification of suspects is sufficient to justify DNA-BC. The majority also described what can be called "association-identification."[58] The Court recognized that acquiring biometric data as a marker or token of individual identity can lead to *other* information about an individual.[59] In particular, sometimes it can perform the criminal-intelligence function of associating an individual with past or future crimes. The major crime-solving power of a DNA profile that is distinctive to an individual (or to a small number of people) comes from the ability to screen a database of unsolved crime scene samples for matches to the arrestee's profile. In addition, the record of the arrestee's DNA profile could be useful in solving future crimes. A database of DNA profiles of suspected terrorists is one such intelligence tool, as it can be used to inform analysts of these suspects' possible involvement in bombings or other incidents in which DNA traces are found.[60] In Justice Kennedy's words:

> A DNA profile is useful to the police because it gives them a form of identification to search the records already in their valid possession. In this respect the use of DNA for identification is no different than matching an arrestee's face to a wanted poster of a previously unidentified suspect; or matching tattoos to known gang symbols to reveal a criminal affiliation; or matching the arrestee's fingerprints to those recovered from a crime scene.[61]

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[56] *See, e.g.*, NANCY YUE LIU, BIO-PRIVACY: PRIVACY REGULATIONS AND THE CHALLENGE OF BIOMETRICS 38–44 (2012).

[57] *See* ARUN A. ROSS ET AL., HANDBOOK OF MULTIBIOMETRICS 22 (2006) ("[F]ingerprints of a small fraction of the population may be unsuitable for automatic identification because of genetic factors, aging, environmental or occupational reasons (e.g., manual workers may have a large number of cuts and bruises on their fingerprints that keep changing).").

[58] *See* Kaye, *supra* note 48, at 44–45.

[59] Maryland v. King, 133 S. Ct. 1958, 1972 (2013) (majority opinion) ("The task of identification necessarily entails searching public and police records based on the identifying information provided by the arrestee to see what is already known about him.").

[60] *See* David Johnston & James Risen, *U.S. Forces Join Big Assault on an Afghan Stronghold; One G.I. Killed; Others Hurt*, N.Y. TIMES, Mar. 3, 2002, at A1 ("Law enforcement officials cited [Richard] Reid's case [who was accused of trying to blow up a trans-Atlantic flight with explosives hidden in his shoes] as an example of how the databank could be useful. Investigators discovered two human hairs embedded in a crude igniting device in Reid's shoes. The authorities said that the strands did not match Reid's hair and that if a DNA database existed, analysts could search it for a match and perhaps identify an accomplice.").

[61] *King*, 133 S. Ct. at 1972.

Indeed, the Court insisted that with respect to trawling a database of crime scene records, "the only difference between DNA analysis and the accepted use of fingerprint databases is the unparalleled accuracy DNA provides."[62] The biometric data, whether they relate to friction-ridge skin or to DNA molecules, can associate individuals with a crime scene or a victim.[63]

But how, precisely, is this intelligence function of DNA-BC constitutionally significant? Justice Kennedy did not simply write that the contribution of DNA-BC to criminal intelligence is a legitimate and powerful state interest because it permits criminal prosecutions for matters unrelated to the original arrest. Instead, he reasoned that the intelligence obtained from pretrial DNA database trawls was valuable (only?) because it could help in the disposition of pretrial matters with respect to the crime for which the defendant was arrested.[64] The idea is that once officials discover a recorded criminal history or an apparent involvement in an unsolved crime—whether by fingerprints, DNA, or anything else—they can make better "choices about how to proceed"[65] with respect to the period and nature of confinement.[66] These choices are "critical," and they implicate

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[62] *Id.*

[63] "Trait identification" is yet another form of identification. Some DNA sequences (and some fingerprint features) are correlated (to some extent) with other physical or mental traits. However, the majority did not use the term "identification" to refer to analyzing DNA sequences to infer phenotypes as opposed to ascertaining variations that differentiate an individual's DNA from almost everyone else's. *See* Kaye, *supra* note 48, at 46.

[64] *See King*, 133 S. Ct. at 1972.

[65] *Id.*

[66] The opinion states that "DNA identification can provide untainted information to those charged with detaining suspects and detaining the property of any felon." *Id*. By revealing "the type of person whom they are detaining, . . . DNA allows them to make critical choices about how to proceed." *Id*. "[L]ooking forward to future stages of criminal prosecution, 'the Government has a substantial interest in ensuring that persons accused of crimes are available for trials,'" and "[a] person who is arrested for one offense but knows that he has yet to answer for some past crime may be more inclined to flee the instant charges, lest continued contact with the criminal justice system expose one or more other serious offenses." *Id*. at 1972–73 (citation omitted). And beyond this possible influence on flight risk, "an arrestee's past conduct is essential to an assessment of the danger he poses to the public, and this will inform a court's determination whether the individual should be released on bail." *Id.* at 1973. "The government's interest in preventing crime by arrestees is both legitimate and compelling. . . . This interest is not speculative. . . . Present capabilities make it possible to complete a DNA identification that provides information essential to determining whether a detained suspect can be released pending trial." *Id*. (internal quotation marks and citation omitted).

Although the majority's analysis pertains only to using existing DNA loci as a token of individual identity, one commentator believes that it means that most DNA database laws authorize testing DNA samples for a postulated "pedophile gene" or a hypothetical "violence gene"—because such postulated genes also could be useful in assessing dangerousness. Erin

"legitimate," "substantial," and "compelling" interests involving pretrial detention.[67] Should a defendant be released before trial? On what conditions? What plea bargain should a prosecutor be willing to consider? Knowing that someone picked up for one offense may be guilty of even more serious crimes is relevant to these pretrial matters.

But the Court's analysis of the extent to which DNA-BC actually furthers these interests is not especially probing. After all, many arrestees already have criminal records.[68] It is far from clear that law enforcement officials often will discover nonredundant bail or jail-security-related information from a DNA database trawl of arrestees. This deferential mode of balancing, however, is nothing new. It typifies the Court's handling of special needs cases.[69]

More surprising is that the majority's list of state interests omits the very thing for which the DNA sample in *King* was used—to charge and convict the defendant of an unrelated crime. The closest the Court comes to acknowledging the state's dominant objective of developing criminal intelligence data that link arrestees to unsolved crimes is a short paragraph stating that "[f]inally, in the interests of justice, the identification of an arrestee as the perpetrator of some heinous crime may have the salutary

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Murphy, *License, Registration, Cheek Swab: DNA Testing and the Divided Court*, 127 HARV. L. REV. 161, 180 (2013). But it is clear that both the *King* majority opinion and the statutes adopted well before *King* use the term "identification" only insofar as the DNA authenticates an individual's identity and produces further information through a database trawl. To use these hypothetical genotypes to infer phenotypes would be to seek "information beyond identification," *King*, 133 S. Ct. at 1979, as the Court used the phrase; *see also* Kaye, *supra* note 48, at 46 (discussing the opinion's use of the phrase and the different meanings of "identification"); *cf.* United States v. Pool, 621 F.3d 1213, 1221 (9th Cir. 2010) ("[E]ven if . . . it is physically possible for the government to extract genetic traits from the 13 loci, there is no evidence that the government could legally do so without further legislation, or that the government has any intention of doing so."), *vacated as moot*, 659 F.3d 761 (9th Cir. 2011) (en banc).

[67] *See King*, 133 S. Ct. at 1972–73.

[68] In fiscal year 2001, about 60% of federal offenders had criminal history points as defined in sentencing guidelines. *See* U.S. SENTENCING COMM'N, RECIDIVISM AND THE "FIRST OFFENDER" 4 (2004), *available at* http://goo.gl/md1WF3. Over 40% of state felony defendants in large counties had at least one prior felony conviction. BUREAU OF JUSTICE STATISTICS, BULLETIN: FELONY DEFENDANTS IN LARGE URBAN COUNTIES, 2006 (May 2010), http://goo.gl/NJYjmE. Of course, the percentage with prior criminal histories would be lower among individuals who are merely arrested, and not later tried or convicted.

[69] *See, e.g.*, Eve Brensike Primus, *Disentangling Administrative Searches*, 111 COLUM. L. REV. 254, 296 (2011) ("[T]he reasonableness standard currently in use is unnecessarily broad and too deferential to the government. Courts define the governmental interests broadly and the privacy interests narrowly, such that in practice the balancing test operates as a form of rational basis review under which the government presumptively wins.").

effect of freeing a person wrongfully imprisoned for the same offense."[70] If the Court is willing to allow balancing at all, why was it not willing to place on the scale the state's interest in determining whether arrestees might be associated with other crimes so that they can be charged with those crimes?[71]

Having articulated at least a subset of all the state interests in DNA-BC, the Court had to weigh them against the individual interests that underlie the Fourth Amendment. First, the Court depicted the state's interests as substantial. Properly processing arrestees, it stressed, is not only "legitimate,"[72] but also "is so important [that it] has consequences for every stage of the criminal process."[73] Next, the Court perceived a close link between these interests and "DNA identification," which "represents an important advance in the techniques used by law enforcement to serve legitimate police concerns."[74] Indeed, the Court insisted that "DNA identification is an advanced technique superior to fingerprinting in many ways, so much so that to insist on fingerprints as the norm would make little sense to either the forensic expert or a layperson."[75] But the opinion pointed to only one superior aspect of DNA profiling for authentication: its power to confound the "suspect who has changed his facial features to evade photographic identification or even one who has undertaken the more arduous task of altering his fingerprints."[76] Moreover, the Court did not mention the inability of normal DNA profiling to distinguish between monozygotic twins (who represent roughly 8 individuals per 1,000).[77] In that regard at least, fingerprints are superior.[78]

On the other side of the ledger, the Court perceived no significant "intrusion upon the arrestee's privacy beyond that associated with

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[70] *King*, 133 S. Ct. at 1974. The opinion also states, more cryptically, that "knowing identity may help clear a suspect and allow the police to concentrate their efforts elsewhere." *Id*. at 1972.

[71] One explanation might be that the majority wanted to avoid an opinion that would pave the way for population-wide DNA sampling. *See infra* Part III.A. Another is that the Court did not see fit to question the common understanding of the special needs line of cases as resting on an inquiry into the dominant purpose of a program alleged to advance an immediate interest other than the investigation and prosecution of criminals. *See infra* Part II.

[72] *King*, 133 S. Ct. at 1970.

[73] *Id.* at 1974.

[74] *Id.* at 1975.

[75] *Id.* at 1976.

[76] *Id.*

[77] *See* Jeroen Smits & Christiaan Monden, *Twinning Across the Developing World*, 6 PLOS ONE 1, 4 (2011), http://goo.gl/GaVmHl ("[A]bout 4 in 1000 births [are] known to be monozygotic across the globe.").

[78] *See* Anil K. Jain et al., *On the Similarity of Identical Twin Fingerprints*, 35 PATTERN RECOGNITION 2653, 2661–62 (2002).

fingerprinting."[79] The sampling procedure itself—the "cheek swab"—is a minimal [intrusion]."[80] Neither do the details of King's "13 CODIS loci . . . intrude on . . . privacy in a way that would make his DNA identification unconstitutional."[81] After all, "alleles at the CODIS loci are not at present revealing information beyond identification,"[82] and "even if non-coding alleles could provide some information, they are not in fact tested for that end."[83] Under Maryland's law, "[a] person may not willfully test a DNA sample for information that does not relate to the identification of individuals."[84] Thus, "[i]n light of the scientific and statutory safeguards, . . . the STR analysis of respondent's DNA pursuant to CODIS procedures did not amount to a significant invasion of privacy"[85] when compared to the value of DNA-BC for pretrial authentication of identity and informed decisionmaking about arrestees.

In sum, the Court rejected the need to find a categorical exception to the warrant and probable cause requirements. It regarded photographing, fingerprinting, and DNA profiling of arrestees as comparable actions amply justified by the utility of these biometrics in establishing the true identity of the individual (authentication-identification) and learning whether he might be responsible for other crimes (intelligence, or association-identification). But the analysis was oddly truncated. The majority did not present the intelligence function as an important weapon in catching criminals. It only relied on DNA profiling of arrestees as a source of information for pretrial decisions about detention for the crimes that triggered the arrests.

C. THE DISSENT'S SUSPICIONLESS SEARCH DOCTRINE

Like the majority, the four dissenters recognized that "free-form" balancing is not generally available,[86] but they drew the line at a different

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[79] *King*, 133 S. Ct. at 1974.

[80] *Id.* at 1977.

[81] *Id*. at 1979.

[82] *Id.* (internal quotation marks and citation omitted).

[83] *Id.*

[84] *Id.* at 1980 (citation omitted).

[85] *Id.* "STR analysis" refers to ascertaining the lengths of certain DNA sequences composed of "short tandem repeats" of a core of several nucleotide bases. One individual might have four repeats of a particular STR at a site on one chromosome (a "locus") and six on the other chromosome. A different individual could have the pair seven and eleven. The list of the pairs of numbers for thirteen such loci is the CODIS profile. *See id.* at 1968; *see also* JOHN M. BUTLER, FUNDAMENTALS OF FORENSIC DNA TYPING 154–57 (2010).

[86] *King*, 133 S. Ct. at 1982 (Scalia, J., dissenting). Justice Kagan used the term "free-form balancing" during oral argument, telling the deputy solicitor general that such balancing is "typically not the way we do it." Transcript, *supra* note 28, at 25. The phrase does not occur in any opinion before *King*, according to my research, although the adjective

point. Justice Scalia's opinion asserted that "[t]he Fourth Amendment forbids searching a person for evidence of a crime when there is no basis for believing the person is guilty of the crime or is in possession of incriminating evidence. . . . Whenever this Court has allowed a suspicionless search, it has insisted upon a justifying motive apart from the investigation of crime."[87] The dissent then argued, caustically and convincingly, that the Maryland legislature was not thinking primarily (if at all) about things like setting bail and catching escapees who may have changed their other biometric features when it expanded its DNA databanking law to encompass arrestees.[88] Those lawmakers aimed to enhance the efficacy of the state database in catching criminals by using it to associate the unidentified crime scene samples with a larger collection of known samples (from arrestees and from the previous base of convicted offenders). And that the Constitution forbids—no matter how minor the intrusion on the person and on privacy—for the Fourth Amendment "prohibition [on suspicionless searches] is categorical and without exception."[89]

As a descriptive matter, the dissent's broad claim that "a suspicionless search" is permissible only when there is "a justifying motive apart from the investigation of crime"[90] is inaccurate. Within the PSUWE framework, the existence of interests beyond generating information and evidence in criminal investigations does trigger balancing. This balancing almost always enables the Court to uphold programs for special needs or administrative searches, such as fire and safety inspections, without individualized suspicion of any code violations,[91] or the compulsory testing of all high school athletes for drug usage.[92] Moreover, the Court has said that if the program of searches or seizures is not designed primarily to advance special interests, then this special needs balancing is not available.[93]

"free-form" appears pejoratively in a few opinions on different topics. *See, e.g.*, McQuiggin v. Perkins, 133 S. Ct. 1924, 1940 (2013) (Scalia, J., dissenting) (criticizing "free-form improvisation" in interpreting a statute); J. McIntyre Machinery, Ltd. v. Nicastro, 131 S. Ct. 2780, 2787 (2011) (plurality opinion) (rejecting "[f]reeform notions of fundamental fairness divorced from traditional practice" in analyzing claims of jurisdiction).

[87] *King*, 133 S. Ct. at 1980 (Scalia, J., dissenting).

[88] *See id*. at 1985–86.

[89] *Id.* at 1980.

[90] *Id.*

[91] Camara v. Mun. Court, 387 U.S. 523, 539–40 (1967).

[92] Vernonia Sch. Dist. 47J v. Acton, 515 U.S. 646, 664–65 (1995); *see also infra* Part II.A.

[93] *See infra* Part II.B (describing the two cases in which the Court has declined to engage in special needs balancing on this basis).

That is why, to the consternation of the dissent,[94] the majority did not present DNA-BC as falling into the special needs category.[95] The majority ventured outside the PSUWE framework entirely—as the Court has done on a few previous occasions. In *Illinois v. Lidster*[96] and again in *Samson v. California*,[97] the Court upheld suspicionless searches or seizures whose primary purpose—indeed, whose solitary purpose—was to develop investigatory leads or to find evidence of guilt.[98] These cases are exceptions to any putative rule that suspicionless searches or seizures cannot have evidence production as their primary purpose.

In *Lidster*, the police were looking for a driver who had struck and killed a seventy-year-old bicyclist.[99] Police cars with flashing lights forced motorists to stop to be asked whether they had seen anything the previous weekend—when the accident occurred—that might help them identify this person.[100] As Robert Lidster's minivan approached the checkpoint, it nearly hit one of the officers.[101] Lidster failed a sobriety test and was convicted of driving under the influence of alcohol.[102] The Appellate Court of Illinois reversed the conviction, and the Illinois Supreme Court agreed.[103] These courts reasoned that the primary purpose exception to the special needs exception,[104] articulated in *City of Indianapolis v. Edmond*,[105] rendered the stop unconstitutional.[106]

That decision seemed correct. In *Edmond*, police established a roadblock to check for illegal drugs with a drug-sniffing dog.[107] In *Lidster*, they instituted a roadblock to discover the identity of the hit-and-run

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[94] *See King*, 133 S. Ct. at 1982 n.1.

[95] *See id*. at 1978–79 (majority opinion).

[96] 540 U.S. 419 (2004).

[97] 547 U.S. 843 (2006).

[98] *See id.* at 847; *Lidster*, 540 U.S. at 423. *Lidster* is usually considered to be a special needs case. *See infra* note 117. On the view taken here—that searches or seizures for the sake of learning about crimes or generating evidence for use at a trial constitute the canonical law enforcement activity for which a warrant or probable cause normally is required—this conventional classification is incorrect.

[99] *See Lidster*, 540 U.S. at 422.

[100] *Id*.

[101] *Id*.

[102] *Id*.

[103] *Id*. at 422–23.

[104] This limitation on the special needs exception is discussed *infra* Part II.B.

[105] 531 U.S. 32, 41–42, 48 (2000).

[106] *Lidster*, 540 U.S. at 423.

[107] *Edmond*, 531 U.S. at 35–36. The Court had just held in *Illinois v. Caballes* that a dog's promenade around a car is not a search. 543 U.S. 405, 409 (2005). What triggered the Fourth Amendment in the first place was only the stop of the vehicle. *See id.*

driver.[108] In both cases, it was undeniable that the sole purpose of the roadblock was to discover evidence of a crime. In *Lidster*, however, the Supreme Court brushed aside the argument that the actual primary purpose of the program barred direct balancing. Considering "context" and "circumstances"[109]—including the small amount of time it took for the stop[110] and the limited nature of the questioning[111]—the Court held the roadblock constitutional via free-form balancing.[112]

In choosing to balance outside the special needs category, the *Lidster* Court emphasized that the roadblock represented only a minor invasion of the motorists' interests.[113] Justice Scalia did not assert then, as he later did in *King*, that "[n]o matter the degree of invasiveness, suspicionless searches are *never* allowed if their principal end is ordinary crime-solving."[114] To the contrary, he joined the majority opinion in full. At that time, Justice Scalia apparently was willing to utilize the degree of invasiveness as a factor in deciding whether to balance. So too, the Court in *Samson*,[115] again with Justice Scalia's approval, upheld a police officer's search of the clothing of a parolee—even though the officer had neither a special need to search the person nor a pretense of individualized suspicion.[116]

To be sure, these cases can be distinguished from *King*. In *Lidster*, "[t]he police expected the information elicited to help them apprehend, not the vehicle's occupants, but other individuals."[117] In contrast, DNA-BC

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[108] *Lidster*, 540 U.S. at 422. Asking questions or distributing a flyer, as occurred in *Lidster*, is not a search. *Id*. at 428; *see also id*. at 425 ("[T]he law ordinarily permits police to seek the voluntary cooperation of members of the public in the investigation of a crime."); *id.* at 426 ("[I]t would seem anomalous were the law (1) ordinarily to allow police freely to seek the voluntary cooperation of pedestrians but (2) ordinarily to forbid police to seek similar voluntary cooperation from motorists."). As in *Edmond*, the only Fourth Amendment interest at stake in *Lidster* was freedom of movement. *See id*. at 427–28.

[109] *Id*. at 424–26.

[110] *Id.* at 426 ("After all, as we have said, the motorist stop will likely be brief. Any accompanying traffic delay should prove no more onerous than many that typically accompany normal traffic congestion.").

[111] *Id*. at 425 ("The police are not likely to ask questions designed to elicit self-incriminating information.").

[112] *Id.* at 428.

[113] *Id*. at 424 ("Neither do we believe, *Edmond* aside, that the Fourth Amendment would have us apply an *Edmond*-type rule of automatic unconstitutionality to brief, information-seeking highway stops of the kind now before us.").

[114] Maryland v. King, 133 S. Ct. 1958, 1982 (2013) (Scalia, J., dissenting).

[115] Samson v. California, 547 U.S. 843 (2006).

[116] *Id.* at 857.

[117] *Lidster*, 540 U.S. at 423. This may be why *Lidster* is regarded conventionally as a special needs case. *See*, *e.g.*, United States v. Amerson, 483 F.3d 73, 80 (2d Cir. 2007) ("Applying the special needs doctrine, the *Lidster* Court upheld the constitutionality of a checkpoint whose primary purpose was to gather *information* from motorists who might

seeks information that could incriminate many of the arrestees even if, as in *Lidster*, that is not the expectation in every, or even the majority, of the cases. As for *Samson*, one can limit its reach by insisting that parolees simply forfeit their Fourth Amendment rights.[118] But that it is not how Justice Thomas's opinion for the Court in *Samson* presents the result,[119] and the *King* dissent's theory of a "prohibition that is categorical and without exception" and that "lies at the very heart of the Fourth Amendment"[120] is not an accurate statement of the Court's Fourth Amendment jurisprudence. When considering routine, suspicionless DNA collection for database trawls, especially but not exclusively after conviction, a great many judges in state and federal courts alike were convinced that a categorical rule like the dissent's rule was not a barrier to such DNA collection.[121]

The dissent's theory certainly would have simplified matters, but the law before, and now after, *King* is not so simple. Figure 1 shows the more complex current state of affairs.[122] It supplies a more complete picture of

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have witnessed a fatal hit-and-run accident the week before."); Josh Gupta-Kagan, *Beyond Law Enforcement:* Camreta v. Greene, *Child Protection Investigations, and the Need to Reform the Fourth Amendment Special Needs Doctrine*, 87 TUL. L. REV. 353, 373 (2012) (referring to *Lidster* as "an earlier special needs case"); Kit Kinports, Camreta *and* al-Kidd*: The Supreme Court, the Fourth Amendment, and Witnesses*, 102 J. CRIM. L. & CRIMINOLOGY 283, 306 (2012) (analyzing the reach of "the special need recognized" in *Lidster*). The perception is that questioning members of the public to gather information on crimes in which they were not known to be involved is a special need. On this understanding, however, it is arguable, as the Second Circuit determined in *Amerson*, 483 F.3d at 82–83, and *Nicholas v. Goord*, 430 F.3d 652, 668–69 (2d Cir. 2005), that creating a DNA database is also a special need. The point of a DNA database system, like the dragnet questioning of the many motorists in *Lidster*, is to yield information about crimes when those who are subject to the program are not known to be associated with the crimes.

[118] During the oral argument in *King*, Justice Sotomayor stated "[a]s I read *Samson*, it was the special relationship between the parolee or the probationary person, that line of cases, and the assumption being that they're out in the world, I think, by the largesse of the State," and that therefore "a State has a right to search their home, just as it would their cell, essentially." Transcript, *supra* note 28, at 11.

[119] The opinion pursued a more extended balancing. It did not stop with the observation that "[e]xamining the totality of the circumstances pertaining to petitioner's status as a parolee . . . including [but not limited to] the plain terms of the parole search condition, we conclude that petitioner did not have an expectation of privacy that society would recognize as legitimate." *Samson*, 547 U.S. at 852. It also enumerated "substantial" state interests. *Id*. at 853–55.

[120] Maryland v. King, 133 S. Ct. 1958, 1980 (2013) (Scalia, J., dissenting).

[121] *See, e.g.*, Kaye, *"Considered Analysis," supra* note 17, at 114–17 (criticizing the readiness of three such courts to balance rather than to apply a categorical rule). *See generally* Robin Cheryl Miller, Annotation, *Validity, Construction, and Operation of State DNA Database Statutes*, 76 A.L.R. 5th 239 (2005).

[122] The final category applies not to the decision to search or seize, but to the manner in which a search or seizure is implemented. The category includes, for instance, ad hoc balancing to avoid "excessive force" in the execution of an arrest or search warrant, *e.g.*, Los

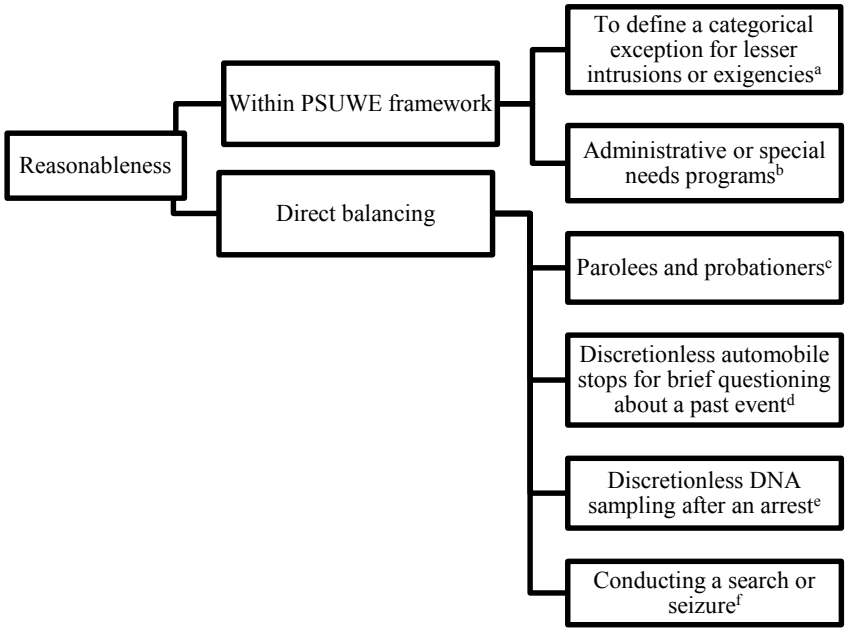
when the Court uses balancing to establish Fourth Amendment reasonableness.[123] To support Justice Scalia's theory for suspicionless searches, we would have to eliminate parts of the direct-balancing branch of the case law. This pruning might be desirable, but the dissent offered no normatively grounded defense of its no-suspicionless-search rule.[124]

Angeles County v. Rettele, 550 U.S. 609, 614 (2007) ("In executing a search warrant officers may take reasonable action to secure the premises and ensure their own safety . . . [but] unreasonable actions include the use of excessive force[.]"), and "unreasonably burdensome" administrative demands for documents, *e.g.*, See v. City of Seattle, 387 U.S. 541, 544 (1967) ("[T]he Fourth Amendment requires that the [agency] subpoena . . . not be unreasonably burdensome.").

[123] For discussion of specific cases in which the Court has balanced, see generally David H. Kaye, *A Fourth Amendment Theory for Arrestee DNA and Other Biometric Databases*, 15 U. PA. J. CONST. L. 1095 (2013) [hereinafter Kaye, *A Fourth Amendment Theory*]; Kaye, *"Considered Analysis," supra* note 17.

[124] *Cf.* Kaye, *A Fourth Amendment Theory*, *supra* note 123, at 1118 (maintaining that *Samson* and *Knights* are anomalous departures from the PSUWE framework).

Figure 1
Situations Where Balancing Determines Fourth Amendment Reasonableness



[a] *See* Terry v. Ohio, 392 U.S. 1, 30–31 (1968).

[b] *See* Skinner v. Ry. Labor Execs. Ass'n, 489 U.S. 602, 619 (1989) ("When faced with such special needs, we have not hesitated to balance the governmental and privacy interests to assess the practicality of the warrant and probable-cause requirements in the particular context.").

[c] *See* Samson v. California, 547 U.S. 843, 846 (2006); United States v. Knights, 534 U.S. 112, 121–22 (2001).

[d] *See* Illinois v. Lidster, 540 U.S. 419, 421 (2004).

[e] *See* Maryland v. King, 133 S. Ct. 1958, 1965–66 (2013).

[f] *See* Tennessee v. Garner, 471 U.S. 1, 3 (1985).

Because the dissent dismissed the majority's "free-form reasonableness" analysis as impermissible, it did not directly question the details of that balancing or argue that, in a sensible and complete balancing of the relevant state and individual interests, the latter should prevail. In fact, the dissent objected to the balancing precisely because it thought that such balancing must justify far more than the collection of DNA from arrestees.[125]

At the same time, the dissent did maintain that arrestee databasing, as actually practiced in Maryland and elsewhere, was inconsistent with the purposes the majority ascribed to DNA-BC. The state did not collect the sample, analyze it, and upload the profile all as part of the booking process.[126] Days, weeks, and months went by before the state completed this process. King's profile was not checked against the existing offender and arrestee indices to see whether he was who he claimed to be. For the dissent, the fact that "DNA . . . *was [not] used for identification [in the sense of authentication] here*"[127] was dispositive. The dissent doubted that "the proud men who wrote the charter of our liberties would have been so eager to open their mouths for royal inspection,"[128] and that was that.

II. DOCTRINAL ALTERNATIVES: A CLOSER LOOK AT PSUWE AND THE DEMISE OF THE WARRANT-PREFERENCE RULE

Although the *King* Court rejected the need to find a categorical exception to the warrant and probable cause requirements for searches, this Article has shown that doing so did not breach a previously impermeable barrier to balancing outside of the PSUWE framework. But the very permeability of the barrier is worrisome. The family resemblance theory of when to balance is intrinsically vague,[129] and excluding the value of DNA databases for criminal investigations in the subsequent balancing strains credulity because it is disconnected from the dominant legislative purpose and the use to which King's profile was put. This Part therefore outlines less contrived defenses of DNA-BC under the Fourth Amendment. In addition, it offers a conceptualization of the case law that is less convoluted than the Court's current off-again, on-again PSUWE framework.

A court determined to uphold DNA sampling before conviction could have dealt with the per se rule in four ways. First, it could have replaced the PSUWE framework with universal free-form balancing—a universe in

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[125] *See infra* Part III.

[126] *See King*, 133 S. Ct. at 1983–84 (Scalia, J., dissenting).

[127] *Id*. at 1988–89.

[128] *Id.* at 1989.

[129] *See supra* Part I.A.

which courts always look at all relevant factors and circumstances bearing on the reasonableness of a search or seizure without worrying about categorical rules.[130] Second, the Court could have found a niche for DNA-BC programs, such as Maryland's, within the special needs exception. Third, the Court could have explicitly created a new, *sui generis* exception for collecting and using DNA samples (and other biometric data) from arrestees. Finally, considering the differences between biometric-data acquisition and use and traditional searches, it could have explicitly recognized a broader categorical exception for acquiring and using certain types of biometric data, including DNA identification profiles, in a program with sufficient privacy safeguards. Instead of adopting any of these approaches, the Court implicitly, and awkwardly, created a new special-needs-type exception for DNA-BC programs. Let us examine just what the *King* Court did—and what it might have done—more carefully.

A. DISCARDING THE PER SE RULE

In theory, the Court could have adopted a new regime in which every case involves a direct inquiry into the reasonableness of the search or seizure under all the case-specific circumstances. This "no lines" regime, as it has been called,[131] would resemble that of tort cases in which juries are asked to use their best judgment to decide whether the defendant's conduct was unreasonable.[132] If this is what "free-form balancing" means, then the *King* Court did not embrace it. Rather, *King*'s balancing incorporated only the state's special (non-crime-solving) interests, and the Court did not question the need for categorical exceptions in most cases. The opinions thus do little to resolve two overlapping debates about the meaning of reasonableness in the Fourth Amendment and the need for the PSUWE framework. This Section explains the two intersecting debates and their relationship to the decision to balance in *King*.

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[130] *See* Craig M. Bradley, *Two Models of the Fourth Amendment*, 83 MICH. L. REV. 1468, 1471 (1985).

[131] *See id*.

[132] *See id.* Many other analogies are apt. *See* Lee, *supra* note 35, at 1133–34 (analogizing to "the requirement in criminal law that a person claiming self-defense must have reasonably believed that the force used was necessary" to prevent an attack). For another example, in probable cause inquiries, judges must decide when "there is a reasonable ground for belief of guilt." Maryland v. Pringle, 540 U.S. 366, 371 (2003) (quoting Brinegar v. United States, 338 U.S. 160, 175 (1949)); *see also* Kit Kinports, *Diminishing Probable Cause and Minimalist Searches*, 6 OHIO ST. J. CRIM. L. 649, 649–50 (2009) (analyzing the differences between traditional probable cause and the less demanding showing of reasonable suspicion required for investigatory stops and frisks).

1. *Reasonabilists and Warrantists*

Some Justices have spoken of Fourth Amendment reasonableness as a no-lines regime,[133] and commentators have disagreed on the proper reading of the relevant text and history of the Amendment. The Amendment protects personal security[134] with two parallel clauses:

> [1] The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and [2] 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.[135]

The first clause bars unreasonable searches and seizures; the second requires that warrants be based on probable cause. But the Amendment is silent on how the two clauses interact,[136] the historical record is "foggy,"[137]

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[133] As Justice Frank Murphy framed this view in *United States v. Rabinowitz*, "[t]he relevant test is not whether it is reasonable to procure a search warrant, but whether the search was reasonable. That criterion in turn depends upon the facts and circumstances—the total atmosphere of the case." 339 U.S. 56, 66 (1950). For more recent incarnations of the case-specific view of reasonableness, see *Samson v. California*, 547 U.S. 843, 848 (2006); Kaye, *"Considered Analysis," supra* note 17, at 115–17 (discussing three opinions by Chief Justice William Rehnquist).

[134] *See generally* Jack Wade Nowlin, *The Warren Court's House Built on Sand: From Security in Persons, Houses, Papers, and Effects to Mere Reasonableness in Fourth Amendment Doctrine*, 81 MISS. L.J. 1017, 1018 (2012) (arguing that more robust protection would flow "from a traditional concern with the security of persons, houses, papers, and effects" rather than the Warren Court's "innovative analysis centered on the prohibition of unreasonable searches and seizures"); Jed Rubenfeld, *The End of Privacy*, 61 STAN. L. REV. 101, 104 (2008) (arguing that the core value of the Fourth Amendment is the interest in personal security rather than the privacy of information); William J. Stuntz, *The Substantive Origins of Criminal Procedure*, 105 YALE L.J. 393, 394, 446 (1995) (maintaining that the Fourth Amendment is meant to limit "coercion and violence"). *But see* STEPHEN J. SCHULHOFER, MORE ESSENTIAL THAN EVER: THE FOURTH AMENDMENT IN THE TWENTY-FIRST CENTURY 130 (2012) (asserting that the core of the Fourth Amendment is "the right to control knowledge about our personal lives, the right to decide how much information gets revealed to whom and for which purposes"); CHRISTOPHER SLOBOGIN, PRIVACY AT RISK: THE NEW GOVERNMENT SURVEILLANCE AND THE FOURTH AMENDMENT 23–26 (2007) (contending that privacy is a central Fourth Amendment value).

[135] U.S. CONST. amend. IV.

[136] Competing theories are described in, for example, Thomas K. Clancy, *The Framers' Intent: John Adams, His Era, and the Fourth Amendment*, 86 IND. L.J. 979, 1061 (2011) (rejecting the notion that the Amendment was "designed solely to ban general warrants"); 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, 1409–14 (2010) (explaining that the warrant preference view of the Fourth Amendment views the two clauses "as interconnected, one giving meaning to the other").

[137] TELFORD TAYLOR, TWO STUDIES IN CONSTITUTIONAL INTERPRETATION 24 (1969); *see also* Maclin & Mirabella, *supra* note 32, at 1063, 1064–67 (describing "areas of

and the scholarly literature divided.[138] Reasonabilists insist that the two clauses are separate and distinct. All the Amendment seems to require is that a search be reasonable and that warrants, when they are sought, be based on probable cause.[139] Consequently, Reasonabilists could accept the no-lines model as consistent with the framing of the Amendment.

Warrantists read the clauses together so that warrantless searches are generally unreasonable.[140] They maintain that in every case in which it is feasible to obtain a warrant based on probable cause, it is necessary to do so.[141] Therefore, Warrantists would reject a standard that treats warrantless searches as reasonable when no good reason for dispensing with the warrant is apparent.[142]

2. *Balancers and Categorizers*

The now-dominant Reasonabilist interpretation of the text of the Fourth Amendment and the statements of various Justices that "the ultimate

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disagreement" in the leading historical analysts' understandings of the Framers' views regarding reasonableness and warrantless searches).

[138] *See* Clancy, *supra* note 136, at 982–89; Thomas Y. Davies, *Recovering the Original Fourth Amendment*, 98 MICH. L. REV. 547, 552–53 (1999) (challenging the historical foundations of both of "the two currently competing constructions of Fourth Amendment reasonableness: the more conventional warrant-preference construction, which treats the warrant process as the central protection called for by the Amendment, and the generalized-reasonableness construction, which rejects the need for, or value of, warrants"); Tracey Maclin, *The Complexity of the Fourth Amendment: A Historical Review*, 77 B.U. L. REV. 925, 928–29 (1997) (arguing that history supports the "warrant preference rule"); David E. Steinberg, *An Original Misunderstanding: Akhil Amar and Fourth Amendment History*, 42 SAN DIEGO L. REV. 227, 267 (2005) ("The historical record actually supports a third interpretation of the Fourth Amendment, different from both the warrant preference rule and Professor Amar's reasonableness approach. Specifically, the framers enacted the amendment solely to regulate house searches.").

[139] The leading modern expositor of this position is Professor Akhil Amar. *See* AKHIL REED AMAR, THE BILL OF RIGHTS: CREATION AND RECONSTRUCTION 64–77 (1998); Amar, *supra* note 45, at 759; Akhil Reed Amar, Terry *and Fourth Amendment First Principles*, 72 ST. JOHN'S L. REV. 1097, 1098 (1998) [hereinafter Amar, Terry *and Fourth Amendment First Principles*]; Akhil Reed Amar, *The Bill of Rights as a Constitution*, 100 YALE L.J. 1131, 1178–81 (1991).

[140] *See, e.g.*, Davies, *supra* note 138, at 559 ("For most of [the twentieth] century, the Supreme Court has endorsed what is now called the 'warrant-preference' construction of Fourth Amendment reasonableness, in which the use of a valid warrant . . . is the salient factor in assessing the reasonableness of a search or seizure.").

[141] *See* Terry v. Ohio, 392 U.S. 1, 20 (1968) ("[P]olice must, whenever practicable, obtain advance judicial approval of searches and seizures through the warrant procedure.").

[142] This would be the position of a Total Warrantist. *See, e.g.*, McCommon v. Mississippi, 474 U.S. 984, 986 n.* (1985) (Brennan, J., dissenting from the denial of petition for writ of certiorari) (referring in a footnote to "[his] view that automobile searches presenting no exigent circumstances should be fully subject to the Fourth Amendment's warrant requirement").

touchstone of the Fourth Amendment is reasonableness"[143] are not necessarily equivalent to advocacy of universal, ad hoc balancing.[144] Overlapping the Reasonabilist–Warrantist debate—and easily confused with the division between the two groups—is the pervasive tension between Balancers and Categorizers.[145] Balancers prefer flexible standards, like reasonableness or utility. Categorizers seek to constrain discretion with more rigid rules crafted to promote the ultimate goals. Inevitably, rules are too broad or too narrow, but on average, they may perform better than giving fallible judges license to balance on ad hoc bases. Consequently, even a Reasonabilist construction of the Fourth Amendment can produce a system in which warrants are required unless a categorical exception provides otherwise. The situation is similar to the defense of moral rules by utilitarians. The "rule utilitarian" believes that moral questions are best resolved by a system of rules that are calculated to maximize utility and that do not permit every moral agent to decide which acts are, all things considered, utility-maximizing.[146] Likewise, a Fourth Amendment

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[143] Kentucky v. King, 131 S. Ct. 1849, 1856 (2011) (quoting Brigham City v. Stuart, 547 U.S. 398, 403 (2006)) (internal quotation marks omitted). Professor Murphy presents the "touchstone" sentence found in *Maryland v. King*, 133 S. Ct. 1958, 1970 (2013), as a "remarkable" signal of "the demise of the warrant standard." Murphy, *supra* note 66, at 184. Yet, the "touchstone" statement appears in opinions extending back to *Pennsylvania v. Mimms*, 434 U.S. 106, 108–09 (1977). *Mimms* used the statement to apply a modified version of the stop-and-frisk exception inaugurated in *Terry v. Ohio*, 392 U.S. 1 (1968), to an aspect of an automobile stop. *See Mimms*, 434 U.S. at 109. That is, *Mimms* held it was reasonable, as a safety precaution, for police to order a person driving with an expired license plate and lawfully stopped for a traffic summons to get out of the automobile, *id.* at 111–12, even though "the officer had no reason to suspect foul play from the particular driver at the time of the stop," *id.* at 109. Echoing *Terry*, the Court perceived that the intrusion on "the driver's personal liberty" (in having to stand outside the vehicle for a short time) paled in comparison to the interest of the police in avoiding "unnecessary risks in the performance of their duties." *Id*. at 110–11 (internal quotation marks and citation omitted).

[144] For commentary that may conflate the issue of across-the-board balancing with the separate-clauses construction of the Fourth Amendment, see Kaye, *A Fourth Amendment Theory*, *supra* note 123, at 1101–04; Murphy, *supra* note 66, at 183–87.

[145] On balancing and classifying in other fields of law, see, for example, Daniel A. Crane, *Rules Versus Standards in Antitrust Adjudication*, 64 WASH. & LEE L. REV. 49, 50 (2007); Thomas I. Emerson, *Toward a General Theory of the First Amendment*, 72 YALE L.J. 877, 912–16 (1963); Carol M. Rose, *Crystals and Mud in Property Law*, 40 STAN. L. REV. 577, 590 (1988); Kathleen M. Sullivan, *Foreword: The Justices of Rules and Standards*, 106 HARV. L. REV. 22, 57–95 (1992).

[146] The "act utilitarian" judges the morality of an action by ascertaining its utility, all things considered. The "rule utilitarian" relies on a set of rules thought to approximate the results of ad hoc judgments. The rule utilitarian can invoke the principle of utility to create a generic exception to a rule, but regardless of his intuition about what a direct assessment of utility would show in the particular case, he may not depart from the applicable rule on an ad hoc basis. *See* Brad Hooker, *Rule Consequentialism*, STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N. Zalta ed., 2011), http://goo.gl/yUOAzV.

Reasonabilist can favor a rule that (1) allows warrantless searches of certain types and (2) forbids warrantless searches that do not fall into these categories.

3. *The Modern PSUWE Framework*

Before *King*, Reasonabilists and Warrantists both spoke of a per se rule with exceptions, but they battled on two fronts. One front was whether to construe the varied exceptions to the warrant requirement expansively to permit the police to search without a warrant, without probable cause, or even without particularized suspicion in certain types of cases. The Reasonabilists won the battle. They achieved victory by expanding the categorical exceptions. They built the exceptions into walls that remained unbreachable, even when a warrant easily could have been obtained in the particular case.[147]

The overbroad categorical exceptions have been the target of much criticism, but the disagreements over where to place the boundaries of the exceptions have not replaced the system of categorical exceptions with a negligence-law-like universe of ad hoc balancing. Both before and after *King*, a court must ask whether a search is of the type that falls under a categorical exception.[148] If it does, the search is deemed reasonable, whether or not police could have obtained a warrant in the particular

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[147] *See* California v. Carney, 471 U.S. 386, 393–94 (1985) (applying the moving-vehicle exception devised in *Carroll v. United States*, 267 U.S. 132, 159 (1925), to a motor home parked for an extended period near a courthouse). As Justice Sotomayor explained in *Missouri v. McNeely*, "[w]e have recognized a limited class of traditional exceptions to the warrant requirement that apply categorically and thus do not require an assessment of whether the policy justifications underlying the exception, which may include exigency-based considerations, are implicated in a particular case." 133 S. Ct. 1552, 1559 n.3 (2013) (citing California v. Acevedo, 500 U.S. 565, 569–70 (1991) (automobile exception); United States v. Robinson, 414 U.S. 218, 224–35 (1973) (searches incident to arrest)). In contrast, the *McNeely* Court treated "the general exigency exception, which asks whether an emergency existed that justified a warrantless search" as one that "naturally calls for a case-specific inquiry." *Id.* Chief Justice Roberts and Justices Breyer and Alito advanced the following understanding of the exigent circumstances exception in drunk driving cases: "[T]here may be time to secure a warrant before blood can be drawn. If there is, an officer must seek a warrant. If an officer could reasonably conclude that there is not, the exigent circumstances exception applies . . . and the blood may be drawn without a warrant." *Id*. at 1569 (Roberts, C.J., concurring in part and dissenting in part). This proposed rule for "the general exigency exception" is the one that a Total Warrantist would apply to all searches.

[148] As indicated in Figure 1, the manner in which a search or seizure is conducted is subject to case-specific balancing. Application of the exigent circumstances exception does not entail ad hoc balancing, but under *McNeely*, it is a case-specific rather than a categorical exception. *See* discussion *supra* note 147.

case.[149] To this extent, the reasonableness view of the Fourth Amendment has prevailed over an "almost universal warrant requirement."[150]

The other front in the Warrantist–Reasonabilist struggle pertains to situations in which the government ventures *outside* the ramparts of the categorical exceptions. Are these searches or seizures *always* unreasonable?[151] Or are there cases in which it is appropriate to balance to find reasonableness without a simple exception? For traditional evidence- or contraband-related searches or seizures, the answer remains in the affirmative—an established exception is required or a new one must be recognized.[152] Although at oral argument Justice Kennedy toyed with the thought that DNA collection on arrest was a search incident to arrest,[153] he

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[149] *See, e.g.*, Lee, *supra* note 35, at 1146 ("If the government engages in a warrantless search and that search satisfies the requirements of a well-delineated exception to the warrant requirement, it too will be presumed reasonable.").

[150] Bradley, *supra* note 130, at 1494. *See generally* Oren Bar-Gill & Barry Friedman, *Taking Warrants Seriously*, 106 NW. U. L. REV. 1609 (2012) (urging adoption of an overarching warrant requirement); William W. Greenhalgh & Mark J. Yost, *In Defense of the "Per Se" Rule: Justice Stewart's Struggle to Preserve the Fourth Amendment's Warrant Clause*, 31 AM. CRIM. L. REV. 1013 (1994) (observing that the Court's use of balancing in cases since Justice Stewart's departure has undermined the per se rule).

[151] Qualifiers like "presumptively," "generally," and "ordinarily" commonly modify the Court's statements of the per se rule, but these terms merely may refer to the possibility of an exception. For example, in *Groh v. Ramirez*, the Court wrote that "our cases have firmly established the 'basic principle of Fourth Amendment law' that searches and seizures inside a home without a warrant are presumptively unreasonable." 540 U.S. 551, 559 (2004) (quoting Payton v. New York, 445 U.S. 573, 586 (1980)). *Payton v. New York*, however, includes a footnote explaining "presumptively unreasonable" as follows: "a search or seizure carried out on a suspect's premises without a warrant is *per se* unreasonable, unless the police can show that it falls within one of a carefully defined set of exceptions based on the presence of 'exigent circumstances.'" 445 U.S. at 586 n.25 (quoting Coolidge v. New Hampshire, 403 U.S. 443, 474–75 (1971)).

[152] Consistent with the function of the warrant and probable cause requirements, balancing is always available to recognize a new exception or refine the boundaries of an already established one. In developing these standard exceptions, relevant considerations include the severity of the intrusion on the person or property, *see, e.g.*, *Pennsylvania v. Mimms*, 434 U.S. 106, 111 (1977) (dismissing as "de minimis" a driver's interest in remaining inside a validly stopped car); the practicality of seeking a warrant, *see, e.g.*, *Michigan v. Tyler*, 436 U.S. 499, 509 (1978) ("Our decisions have recognized that a warrantless entry by criminal law enforcement officials may be legal when there is compelling need for official action and no time to secure a warrant."); and the value of screening for probable cause (or a lesser degree of individualized suspicion) by a magistrate; *see, e.g.*, Nat'l Treasury Emps. Union v. Von Raab, 489 U.S. 656, 667 (1989) (finding no need "to interpose a neutral magistrate between the citizen and the law enforcement officer" when there are "no special facts for a neutral magistrate to evaluate.").

[153] Transcript, *supra* note 28, at 26 (asking the deputy solicitor general why this is not a search incident to arrest "just like taking the pockets out and . . . seeing what's in the person's overcoat and so forth"). Justice Scalia, on the other hand, may have described the exception too narrowly. *Id*. at 27 (suggesting that the search-incident-to-arrest doctrine only

wisely veered away from that idea in the opinion.[154] DNA sampling is not required to protect the arresting officer or to prevent the destruction of evidence.[155]

Nevertheless, in the last half century, the Court has upheld as reasonable one type of search after another, the abject absence of probable cause or a warrant notwithstanding.[156] Drug tests in schools[157] and in the workplace,[158] roadblocks to get drunk drivers off the roads,[159] inspections of fire-damaged premises,[160] and periodic searches of jail cells,[161] for example, do not require probable cause and a warrant. The common theme of these cases is that the government's interests go beyond the production of evidence for use in a criminal investigation or prosecution. In ordinary cases, in which the only point of the search is to generate such evidence or to seize contraband or stolen items, a warrant (or, conceivably, a brand-new exception) is still required. As such, the PSUWE framework has not been replaced with a no-lines standard. But in those cases in which an additional interest—including law enforcement interests relating to confining prisoners—is present, the Court asks whether the state's interests outweigh the invasion of the individual interest in being free from arbitrary or oppressive searches.[162]

Although the administrative and special needs searches often are presented as if they comprise a single exception, they represent a category of exceptions rather than a single categorical exception. The presence of an administrative system or a special need is nothing more than a potential reason to recognize new, discrete exceptions. Weighty interests beyond or

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allows police to search for weapons and "material that relates to the crime for which the person has been arrested"). The deputy solicitor general corrected both Justices. *Id.* at 26–27 (calling Justice Scalia's construction "inaccurate" because the search-incident-to-arrest exception allows a "full search of the person for any destructible evidence," and "[t]he crime of arrest limitation . . . [only] relates to cars").

[154] Maryland v. King, 133 S. Ct. 1958, 1970 (2013). The dissent easily showed that the practice does not fit into the exception established for searches incident arrest. *See id*. at 1982 (Scalia, J., dissenting).

[155] These two concerns define the scope of the search incident to arrest exception. *See* Chimel v. California, 395 U.S. 752, 763 (1969).

[156] *See, e.g.*, Ashcroft v. al-Kidd, 131 S. Ct. 2074, 2080–81 (2011) (enumerating four such situations).

[157] Vernonia Sch. Dist. 47J v. Acton, 515 U.S. 646, 665 (1995).

[158] Skinner v. Ry. Labor Execs. Ass'n, 489 U.S. 602, 624 (1989).

[159] Mich. Dep't of State Police v. Sitz, 496 U.S. 444, 455 (1990).

[160] Michigan v. Clifford, 464 U.S. 287, 294 (1984) (plurality opinion); *cf.* Camara v. Mun. Court, 387 U.S. 523, 535–38 (1967) (inspections for compliance with a housing code pursuant to area-wide warrants did not require individualized suspicion).

[161] Bell v. Wolfish, 441 U.S. 520, 557 (1979).

[162] *See* Kaye, *A Fourth Amendment Theory*, *supra* note 123, at 1108.

other than the investigation or prosecution of crimes provide a license to create additional categorical exceptions—by balancing. For example, an exception for vehicle checkpoints near the border flows from a special need—controlling entry to the country.[163] So does an exception for random searches of a prisoner's cell—to remove contraband that poses threats to prison discipline or security.[164] These specific exceptions are two of the many distinct special needs exceptions that categorically justify causeless, warrantless searches.[165]

Seen in this light, the PSUWE framework requires a court to look through more than twenty discrete exceptions of varying degrees of precision, some for criminal law enforcement evidence searches and others for administrative or special needs searches.[166] If none of these exceptions apply, the search is unreasonable unless it differs from traditional searches for contraband or evidence of a crime in a way that justifies a new exception.

King is broadly consistent with this PSUWE framework. It does not liberate courts to weigh interests *ab initio* in light of the totality of the circumstances in every case.[167] Had the majority wished to discard the PSUWE framework in this wholesale manner, it would not have needed to cobble together a set of purely detention-related state interests. Had the Court wished to dispose of the per se rule *in toto*, it could have relied on the unusual power of DNA databases to produce leads with which to apprehend wrongdoers and evidence with which to convict them. The Court did neither of these things. Instead, it left the PSUWE framework intact, at least with respect to the existence of categorical exceptions that avoid the

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[163] *See* United States v. Martinez-Fuerte, 428 U.S. 543, 561–62 (1976); Almeida-Sanchez v. United States, 413 U.S. 266, 272 (1973).

[164] *See* Florence v. Bd. of Chosen Freeholders, 132 S. Ct. 1510, 1516 (2012).

[165] The cases establish categorical exceptions when they uphold whole types of searches or seizures without regard to the specific facts of each case falling under the program in question. Thus, certain kinds of roadblocks, drug tests of employees, searches of students' property, inspections of jail cells, DNA-BC, and much more are permissible without a warrant and probable cause when the program authorizing this official conduct meets certain criteria for each exception.

[166] *See* Bradley, *supra* note 132, at 1473–74 (cataloging the exceptions as of 1985).

[167] *King* does not empower courts to consider, for example, the nature of the specific crime they are seeking to solve in deciding whether a particular warrantless search of a container is constitutional. Although it surely is more important to solve a robbery-murder case by searching a suspect for the wallet that the killer stole than to ascertain a joyrider's identity by searching the same suspect for the key to the car, the gravity of the incident motivating the search is not part of the inquiry into the reasonableness of the search. Instead of adopting this kind of ad hoc balancing for all cases, the Court employed the programmatic balancing used in special interest cases for the Maryland practice of preconviction DNA collection and analysis. *See* Maryland v. King, 133 S. Ct. 1958, 1969–70 (2013).

need for a particularized showing that a warrant was not feasible. And, it tried to confine its strategy of sidestepping the PSUWE framework as applied to searches or searches outside of the usual safe harbors to cases bearing some family resemblance to some special needs cases.

The opinion suggests that the most recognizable family trait is that "the search involves no discretion that could properly be limited by the 'interpo[lation of] a neutral magistrate between the citizen and the law enforcement officer.'"[168] As in the case of a policy that always requires inventory searches of arrestees, a magistrate has nothing to decide with regard to mandatory DNA sampling. This rationale for dispensing with warrants applies in various special needs cases, like the inventory search (even though it is preceded by a discretionary decision to make an arrest).[169] It also applies to *Lidster*, in which the roadblock for solving the hit-and-run case applied to all drivers,[170] rendering pointless a magistrate's judgment of whether any given driver had done anything wrong or had pertinent knowledge. But the other two direct-balancing cases, *Samson* and *Knights*, are members of the family that do not share this feature,[171] leaving the boundaries of the non-PSUWE cases obscure.

Although claims that *King* has abolished the PSUWE framework are premature, the Court's continued willingness to step outside the PSUWE framework on rare occasions is problematic. It complicates what should be a more straightforward analytical framework, and excessive use of the escape mechanism of direct balancing in an ill-defined set of non-special-needs cases would undermine the PSUWE framework.

Consequently, there are good reasons to consider alternatives that are less anomalous than the *King* Court's resort to direct balancing in lieu of explicitly creating a new categorical exception. The next Section shows how the Court could have created the same *sui generis* exception for DNA-BC without stepping outside the special needs category. Then, the final Section in this Part indicates how it could have embraced a still broader categorical exception.

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[168] *Id.* at 1969 (quoting Nat'l Treasury Emps. Union v. Von Raab, 489 U.S. 656, 667 (1989)). When this condition exists, "[t]he need for a warrant is perhaps least." *Id*.

[169] *See, e.g.*, Illinois v. Lafayette, 462 U.S. 640, 647 (1983) (stating that "standardized inventory procedures are appropriate").

[170] *See* Illinois v. Lidster, 540 U.S. 419, 422 (2004).

[171] Both cases resulted from an isolated search after an individual aroused a police officer's suspicion. Samson v. California, 547 U.S. 843, 846–47 (2006); United States v. Knights, 534 U.S. 112, 115 (2001).

B. SPECIAL NEEDS BALANCING

Authentication-identification *is* a special need. It permits jailers, judges, and prosecutors to know whether an arrestee has a criminal record—not because the record is evidence of guilt in the current case—but because it is relevant to administrative and judicial decisions about the need for and nature of pretrial confinement. This is the purpose given such great weight by the *King* majority.[172] Having a permanent biometric record serves sundry other interests as well.[173]

Yet, both Justice Kennedy's majority opinion and Justice Scalia's dissenting opinion stated that *King* did not fall into the special needs category. Two relatively recent cases created a stumbling block. In these cases, the Court declared the exception inapplicable if criminal evidence collection was the primary purpose of the program of searches. One case, *City of Indianapolis v. Edmond*,[174] which we encountered in Part I.C, involved road blocks and dogs trained to detect drugs. The other, *Ferguson v. City of Charleston*,[175] was a program developed by law enforcement authorities at the suggestion of a hospital to test pregnant women's urine for drug metabolites and to use the criminal law to coerce women into drug counseling.[176] However, these cases are distinguishable from *King* in that the "primary purpose" of ordinary law enforcement—gathering evidence suitable for prosecutions—was their *only* purpose. The Court has never decided whether the same result should apply when the program truly serves *multiple* purposes.[177]

If special needs balancing is available for single purpose searches, it also should be available for multipurpose ones. Consider two search programs that differ only in this regard: Program 1 serves special interests *without* advancing the ordinary law enforcement interest of producing evidence for criminal investigations and prosecutions; Program 2 serves special interests *plus* law enforcement interests. *Ceteris paribus*, Program 2 must be the more reasonable. The government interests are stronger, and the premise that the Framers of the Fourth Amendment already struck the balance in favor of warrants and probable cause applies only when the

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[172] *See supra* Part I.B.

[173] A traditional justification for acquiring biometric data on arrestees was to enforce laws seeking to prevent escape. Kaye, *supra* note 39, at 486. Additional uses for biometric data on arrestees can be found in Kaye, *A Fourth Amendment Theory*, *supra* note 123, at 1127, 1129.

[174] 531 U.S. 32 (2000).

[175] 532 U.S. 67 (2001).

[176] *Id*. at 80, 83.

[177] *See* Kaye, *A Fourth Amendment Theory*, *supra* note 123, at 1125.

government has no special interests that merit consideration.[178] Yet, the primary purpose restriction on special needs balancing prevents the Court from upholding Program 2 (when evidence production is the primary purpose) but allows it to uphold Program 1 (because the added benefit to law enforcement was not the primary purpose of the legislature in adopting the program).

All the Justices in *King*, however, took the "primary purpose" limitation on special needs balancing as sacrosanct and applicable to multipurpose programs. The majority wrote that "[t]he special needs cases, though in full accord with the result reached here, do not have a direct bearing on the issues presented in this case . . . ."[179] These Justices felt free to balance to determine whether the Maryland law was reasonable because cases within the special needs rubric had engaged in such balancing, as had a few (most notably *Samson*) that did not qualify as special needs cases. The dissent found the reference to the special needs cases "perplexing," if not disingenuous.[180] This opinion relentlessly hammered away at the fact that the primary purpose of the Maryland statute was to generate evidence with which to apprehend and convict more criminals.

The *King* Court's direct balancing sidesteps the primary purpose limitation on creating a new exception to accommodate special interests. But the resulting system, in which the Court takes pains to assure itself of a primary purpose, and then dispenses with the need for such a finding when it does not find one, is complicated and obscure. The Court could have simply narrowed the primary purpose limitation for special needs balancing to a sole purpose limitation.[181] DNA-BC serves multiple purposes, and dropping the assumed primary purpose limitation on balancing in multipurpose search programs therefore would have enabled the Court to balance to determine whether DNA-BC belongs in the category of warrantless searches made permissible by special interests.

To be sure, even this simplified structure would be far from perfect. What kind of a "rule" has more than twenty not-always-well-defined exceptions?[182] My claim, however, is not that today's PSUWE rule is

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[178] *See* New Jersey v. T.L.O., 469 U.S. 325, 351, 352 (1985) (Blackmun, J., concurring); Kaye, *A Fourth Amendment Theory*, *supra* note 123, at 1111–13.

[179] Maryland v. King, 133 S. Ct. 1958, 1978 (2013).

[180] *Id*. at 1982 n.1 (Scalia, J., dissenting).

[181] *See supra* notes 177–78 and accompanying text.

[182] The rule against hearsay comes to mind. It even includes a perplexing residual exception, just in case none of the more specific exceptions applies to highly reliable hearsay. FED. R. EVID. 807. Is it surprising that calls for hearsay reform have been legion? For examples of such reform proposals, see generally Roger C. Park, *A Subject Matter Approach to Hearsay Reform*, 86 MICH. L. REV. 51 (1987); Eileen A. Scallen, *Constitutional Dimensions of Hearsay Reform: Toward a Three-Dimensional Confrontation Clause*, 76

trouble-free, but only that the *King* Court would have done better to treat DNA-BC as a multipurpose program eligible for special needs balancing rather than presenting it as a cousin of the special needs cases residing outside the realm of special needs balancing. Along with that shift in perspective, the majority could have undertaken a less contrived balancing to ascertain whether DNA-BC programs—as one facet of a multimodal, multipurpose biometric identification system for custodial arrestees—should emerge as a new exception. Given the majority's understanding of the value of DNA-BC in solving and deterring crime, the special interests it advances in the case of individuals who are under custodial arrest, and its limited intrusiveness as compared to traditional, full-blown searches of persons, houses, papers, and effects, the majority could have more convincingly crafted a new special needs exception rather than creating the same narrow exception implicitly via direct balancing.[183]

C. A BROADER BIOMETRIC EXCEPTION

The Court also might have left the broad contours of the PSUWE framework unchanged by creating a broader categorical exception for the acquisition and use of certain biometric data for authentication- and association-identification.[184] The established exceptions to per se

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MINN. L. REV. 623 (1992); J.R. Spencer, *Hearsay Reform: The Train Hits the Buffers at Strasbourg*, 68 CAMBRIDGE L.J. 258 (2009). But the existence of a large number of exceptions poses no great problem for hearsay, for most are obviously inapplicable in a particular case. Only those exceptions whose contents are difficult to discern render a rule hard to administer. Similarly, once an exception for a special needs program is recognized, it can be applied easily if its boundaries are reasonably clear. Thus, the presence of more than twenty exceptions to the warrant requirement is not itself a strong reason to condemn the extended per se framework. Problems arise, however, from the vagueness in the standards for recognizing new exceptions and from the indeterminacy or overbreadth in the boundaries of the existing ones. *See, e.g.*, New York v. Belton, 453 U.S. 454, 459, 460 n.4 (1981) (responding to "[t]he difficulty courts have had" defining "the proper scope of a search of the interior of an automobile incident to a lawful custodial arrest of its occupants" by adopting an overbroad rule allowing full searches of the passenger compartment, including "closed or open glove compartments, consoles, or other receptacles located anywhere within the passenger compartment, as well as luggage, boxes, bags, clothing, and the like"), *limited by* Arizona v. Gant, 556 U.S. 332, 343 (2009).

[183] Just how narrow the *King* exception is can be disputed. That is the subject of Part III *infra*.

[184] *See* Kaye, *A Fourth Amendment Theory*, *supra* note 123, at 1139 (defending the view that "[i]t should be reasonable under the Fourth Amendment to acquire, analyze, store, and trawl biometric data without a warrant and without individualized suspicion when five conditions hold: (1) the person legitimately is detained (or the data are acquired without confining the individual); (2) the process of collecting the data is not physically or mentally invasive; (3) collection proceeds according to rules that prevent arbitrary selection of individuals; (4) the biometric data are used only to establish or authenticate the true identity of a given individual or to link individuals to crime scenes; and (5) the authentication or

unreasonableness for searches for criminal evidence or contraband are based on pragmatic considerations about the practicality of, and need for, a magistrate's review as well as the nature of the infringement on individual interests, such as freedom of movement and the security of one's person and possessions. As with detaining a resident during a search with a warrant[185] or briefly stopping, questioning, and patting down an individual who might be armed and about to commit a robbery,[186] the acquisition of biometric data is a lesser intrusion on Fourth Amendment interests than are custodial arrests or ordinary searches of personal property and dwellings. Therefore, the general judgment that a traditional search or seizure is per se unreasonable in the absence of probable cause or a warrant does not necessarily apply.[187]

Justice William Brennan stated some of the case for the biometric exception when he wrote for the Court in *Davis v. Mississippi*[188] that one biometric modality, fingerprinting, "involves none of the probing into an individual's private life and thoughts that marks an interrogation or search. . . . Furthermore, fingerprinting is an inherently more reliable and effective crime-solving tool than eyewitness identifications or confessions . . . ."[189] Retired Supreme Court Justice John Paul Stevens, in an address delivered on the heels of the *King* decision, expressed his agreement with the result in *King*, in part on the theory that inasmuch as "taking a DNA sample reveals no information about the private, non-criminal conduct of the object of the search, . . . taking a DNA sample—or a fingerprint sample—involves a far lesser intrusion on an ordinary person's privacy than a search that allows an officer to rummage through private papers."[190] Although the notion of "no information" whatsoever is overstated,[191] trawling crime scene databases for fingerprints or DNA matches has a lesser impact on bona fide Fourth Amendment interests than

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intelligence-gathering system is valid, reliable, and effective"); *see also* D.H. Kaye, *Who Needs Special Needs? On the Constitutionality of Collecting DNA and Other Biometric Data from Arrestees*, 34 J.L. MED. & ETHICS 188, 193–94 (2006).

[185] Michigan v. Summers, 452 U.S. 692, 704–05 (1981).

[186] Terry v. Ohio, 392 U.S. 1, 27–28 (1968).

[187] *See* Amar, Terry *and Fourth Amendment First Principles*, *supra* note 139, at 1098; Kaye, *A Fourth Amendment Theory*, *supra* note 123, at 128–29.

[188] 394 U.S. 721, 727 (1969).

[189] *Id.* at 727.

[190] Justice John Paul Stevens (ret.), Address at American Constitution Society Convention at 15 (June 14, 2013), *available at* http://goo.gl/saIN9F.

[191] *See* David H. Kaye, Maryland v. King*: The Tenth Justice (Stevens) Votes*, FORENSIC SCI. STATISTICS & LAW (June 15, 2013), http://goo.gl/lXaCFo.

traditional searches.[192] Consequently, the case for an exception to the per se rule is substantial.

Although Maryland mentioned this possibility in its petition for review,[193] neither side referred to it again, and the Court did not consider it. This was unfortunate. An exception within the PSUWE framework would have a supplied a sturdier basis for upholding DNA-BC—or alternatively, for explaining why DNA collection and analysis does not qualify for the exception when fingerprinting, photographing, and noting distinguishing features like tattoos do qualify (or are of so little concern to the security of the person and his property as to escape the attention of the Fourth Amendment entirely).

The Kennedy majority saw no convincing reason to distinguish between DNA on the one hand and the older modalities on the other. In response, Justice Scalia's dissent sought to distinguish the latter three practices from collecting a person's DNA on the grounds that they either are not considered searches or that they are not systematically used to associate an arrested individual with a different (past or future) crime.[194] These distinctions, however, are overdrawn. First, the search/no-search dichotomy in Fourth Amendment law does not differentiate DNA typing from fingerprinting. That is, the threshold question of whether something is a search should not be answered one way when police force an individual to undergo fingerprinting for inclusion in a database and a totally different way when they compel the person to submit a DNA sample for a database profile.[195] Both actions should be considered searches. Furthermore, the search/no-search classification is binary. Two information-gathering practices can be nearly the same in their impact on the individual's Fourth Amendment interests yet wind up on different sides of the dotted line. Merely asserting that one activity is a "search" and another might not be does not establish that they are dramatically different.[196]

Second, the dissent's claim that fingerprint databases are not systematically used to catch criminals does not reflect current reality. Justice Scalia's evidence to the contrary is based on an obvious misreading

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[192] *See* Kaye, *A Fourth Amendment Theory*, *supra* note 123, at 1133–39; David H. Kaye, *DNA Database Trawls and the Definition of a Search in* Boroian v. Mueller, 97 VA. L. REV. IN BRIEF 41, 46–49 (2011) [hereinafter Kaye, *DNA Database Trawls and the Definition of a Search*].

[193] Petition for Writ of Certiorari, Maryland v. King, No. 12-207, *cert granted*, 133 S. Ct. 1958 (2013).

[194] *King*, 133 S. Ct. at 1986–87 (Scalia, J., dissenting).

[195] Justice Scalia's approach to defining searches admits of no such distinction. *See* David H. Kaye, Maryland v. King*: The Dissent's Ten Second Rule*, FORENSIC SCI. STATISTICS & LAW (Nov. 29, 2013), http://goo.gl/9MhQOk.

[196] *See id*.

of an FBI publication.[197] Latent-print analysts routinely trawl databases populated with arrestee prints for "cold hits."[198] These cases received more publicity when they were novel, but they continue to be reported,[199] and the FBI searches new arrestee "prints coming in every day" for leads in unsolved cases.[200]

It is true that the original or primary motivation for amassing large arrestee fingerprint databases was not to trawl them for matches to latent prints from crime scenes. It was to ascertain whether an arrestee's prints already were in the database as a result of a previous arrest. To that extent, arrestee DNA profiling differs from arrestee fingerprinting. DNA profiling always had criminal intelligence gathering as its primary purpose. Although that also is a major purpose of arrestee fingerprinting today, it was not always so.

This history may be significant in deciding whether to balance under the special needs line of cases, but it is not germane to deciding whether to consider a categorical exception for collecting biometric data for that very purpose. The rationale for the general biometric-data exception is that association-identification is an important function that can be performed without impermissibly infringing on interests that the Fourth Amendment protects. To say that some biometric identifiers (such as photographs) can be acquired without "searching" and that others (such as fingerprints) can be acquired for authentication-identification (and then used for the

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[197] *Id*.; *see also* FED. BUREAU OF INVESTIGATION, PRIVACY IMPACT ASSESSMENT: INTEGRATED AUTOMATED FINGERPRINT IDENTIFICATION SYSTEM (IAFIS)/NEXT GENERATION IDENTIFICATION (NGI) REPOSITORY FOR INDIVIDUALS OF SPECIAL CONCERN (RISC), http://goo.gl/Oj0YNs (last visited May 28, 2014).

[198] ILL. STATE POLICE, AUTOMATED FINGERPRINT IDENTIFICATION SYSTEM (Oct. 2003), http://goo.gl/ZSCp4r (reporting 21,407 trawls and 6,065 hits from 1989 through 2003); IND. STATE LAB. DIV., 2013 ANNUAL REPORT 10 (2013), http://goo.gl/N18NIE (reporting "183 AFIS hits in 2013 even though the system was down for several months due to being updated"); WASH. STATE PATROL, AUTOMATED FINGERPRINT IDENTIFICATION SYSTEM (Apr. 2012), http://goo.gl/8ZlDcP (reporting that "more than 600 identifications have been made in Washington State"); *see also* Kaye, *supra* note 195; Kaye, *supra* note 48, at 44 n.38 (collecting statistics indicating that thousands of fingerprint database trawls occur annually in active and cold cases combined); E-mail from Stephen G. Fisher, Jr., FBI Criminal Justice Info. Services, to author (Apr. 15, 2014) (on file with author) (reporting that "[d]uring Fiscal Year 2013, the IAFIS [Integrated Automated Fingerprint Identification System] received nearly 220,000 latent searches from the latent user community").

[199] *See, e.g.*, Brian R. Ballou, *Fingerprint Technology Credited for Cold Case Arrest*, BOSTON GLOBE, Sept. 20, 2011, at B12; Summer Moore, *Family Says Prints Led to Man's Arrest*, AUGUSTA CHRON., June 5, 2012, at 1A; Dean A. Radflord, *Arrest Made in '78 Cold Case*, RENTON REPORTER, Sept. 23, 2011, at 3; Kevin Valine, *Fingerprints Lead to Arrest in Robbery*, FORENSIC MAG. (Nov. 21, 2013, 11:01 AM), http://goo.gl/64krsd.

[200] Adam Vrankulj, *NGI: A Closer Look at the FBI's Billion-Dollar Biometric Program*, BIOMETRICUPDATE.COM (Nov. 4, 2013), http://goo.gl/7v7IsF.

secondary purpose of association-identification) says next to nothing about whether a proposed exception to the requirement for a warrant and probable cause for collecting and using certain biometric-identifiers should include DNA profiles.

That judgment depends on whether the state's interests in having these identifiers—for criminal intelligence as well as authentication—outweigh the Fourth Amendment interests of individuals. Whether the criminal intelligence function is called primary or secondary, it is equally important and legitimate. Therefore, the dissent's effort to distinguish DNA from other biometric identifiers, even if it were more accurate, would fall short of what would be needed to defeat the argument for a categorical exception. To justify denying the exception to CODIS profiles, one would have to demonstrate that DNA sampling, as regulated by the statute, is substantially more invasive of legitimate individual interests than is collecting the other types of biometric data.[201] As indicated in Part III, arguments to this effect can be made, but the dissent did not even try.[202]

III. MORE TO COME

To this point, I have probed the place of *King* in the convoluted analytical framework for determining the reasonableness of searches and seizures. I have argued that *King* neither dismantles this framework nor radically changes it. Furthermore, I have suggested that the majority opinion would have been more convincing had it candidly endorsed the value of arrestee databases in solving crimes for their own sake rather than as a mere device to assist in pretrial decisionmaking, and I elucidated two possible doctrinal paths to this more comprehensive balancing.[203]

Having elucidated the logic of *King*, I turn now to the implications that this logic (and the alternatives that I have sketched) holds for DNA-BC as

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[201] Any suggestion that association-identification is necessarily more invasive of legitimate individual interests than is authentication-identification would be untenable. As much as an individual might want to cloak his presence at a crime scene as a "private fact," *see* Orin S. Kerr, *Four Models of Fourth Amendment Protection*, 60 STAN. L. REV. 503, 512–15 (2007), the interest in not being caught carries no weight, *see* Kaye, *A Fourth Amendment Theory*, *supra* note 123; Kerr, *supra*, at 511 (discussing cases dismissing "the mere expectation, however well justified, that certain facts will not come to the attention of the authorities" (internal quotation marks and citation omitted)).

[202] *See* David H. Kaye, Maryland v. King: *When Being Smart and Witty Isn't Enough*, FORENSIC SCI. STATISTICS & LAW (Nov. 27, 2013), http://goo.gl/QQmisR.

[203] As shown in Part II, the Court could have included the normal evidence-producing value in the balancing by clarifying or eliminating the overbroad primary purpose limitation on the special needs exception to the rule of per se unreasonableness. Alternatively, the value could have been considered at an earlier stage, by examining whether there should be a new categorical exception for purely biometric data that includes DNA profiles.

practiced in other jurisdictions and as it might be implemented in the future. The facts in *King* make for a narrow holding. The DNA sampling was confined to violent crimes and burglaries; officials had no discretion to pick and choose which arrestees' DNA to acquire; a physical intrusion into the body took place; the loci tested revealed no sensitive medical or other privacy-laden information; the state trawled the forensic index (of unsolved crime scene profiles) only for matches to the arrestee (and not for partial matches that might point primarily to immediate relatives); the profiling and uploading occurred after formal charges; and the samples are destroyed if a conviction does not ensue. But which of these factors are actually critical to the Court's conclusion that the Fourth Amendment allows DNA-BC?

A. NONCODING LOCI AND STATUTORY PRIVACY PROTECTIONS

The *King* Court referred to "scientific and statutory safeguards" that ensured that there was no "significant invasion of privacy that would render the DNA identification impermissible under the Fourth Amendment."[204] "Safeguards" is an appropriate term—in the long-term, neither science nor law can afford absolute protection against the discovery of information in which an individual has a reasonable claim of secrecy. They can, however, go a long way toward that goal.

On the scientific side, ever since "DNA fingerprinting" burst onto the forensic scene in the mid-1980s,[205] government authorities and scientists have assured us that the DNA variations (alleles) at the locations (loci) used to create identifying profiles for the FBI's Combined DNA Index System (CODIS) are pure junk[206]—they do not encode proteins,[207] they have no

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[204] Maryland v. King, 133 S. Ct. 1958, 1980 (2013).

[205] *See* DAVID H. KAYE, THE DOUBLE HELIX AND THE LAW OF EVIDENCE 262 (2010).

[206] *See, e.g.*, Kirk E. Lohmueller, Letter to the Editor, *Graydon et al. Provide No New Evidence that Forensic STR Loci Are Functional*, 4 FORENSIC SCI. INT'L: GENETICS 273, 273 (2010); N.Y. STATE LAW ENFORCEMENT COUNCIL, LEGISLATIVE PRIORITIES 2012, at 5, http://goo.gl/8xhRzT (last visited May 29, 2014) ("The pieces of DNA that are analyzed for the databank were specifically chosen because they are 'junk DNA.'"); WASH. STATE PATROL CODIS LAB., THE COMBINED DNA INDEX SYSTEM (Jan. 2012), http://goo.gl/HavkZi ("The regions of DNA tested are non-coding and are often referred to as 'junk DNA' because they don't code for anything in particular and don't yield medical information.").

[207] *See, e.g.*, H. COMM. ON JUDICIARY, REPORT ON THE DNA ANALYSIS BACKLOG ELIMINATION ACT OF 2000, H.R. REP. NO. 106-900(1), at 27 ("[T]he genetic markers used for forensic DNA testing . . . show only the configuration of DNA at selected 'junk sites' which do not control or influence the expression of any trait."); U.S. DEP'T OF JUSTICE, OFFICE OF THE INSPECTOR GENERAL, AUDIT REPORT: THE COMBINED DNA INDEX SYSTEM, at 51 (Sept. 2001), *available at* http://goo.gl/RZrqN1 ("These areas are considered junk DNA because they do not 'code' for anything (*i.e.*, the DNA does not translate into a personal identifying characteristic like 'blue eyes' or into a genetic predisposition for disease).").

known associations with diseases or behavioral traits,[208] and they contain no information beyond an arbitrary identifier.[209] The Court espoused this view when it wrote that "[t]he CODIS loci are from the non-protein coding junk regions of DNA, and 'are not known to have any association with a genetic disease or any other genetic predisposition. Thus, the information in the database is only useful for human identity testing.'"[210]

This reasoning is oversimplified. That STRs do not encode proteins does not necessarily mean that they cannot possibly affect the quantity or timing of gene expression or that they are entirely uncorrelated with DNA sequences that are expressed. Moreover, CODIS loci certainly can be used to make inferences about a few family relationships and to give rough indications of biogeographic ancestry.[211] Nevertheless, even though the majority's brief description omits such nuances, the factual premise that the particular sequences used in CODIS databases neither cause nor are strongly predictive of any medical conditions or other traits is warranted.[212] The current loci seem to be devoid of significant information on health status. As a result, the "scientific safeguard" of choosing only such vacuous loci for human identity testing is effective, at least for now.

But what if future research falsified this premise by finding some variations at one or more CODIS loci to be predictive of some trait possessed by some individuals whose profiles reside in a database?[213] According to the *King* Court, "[i]f in the future police analyze samples to

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[208] H.R. REP. NO. 106-900(1), at 27 ("DNA profiles generated in conformity with the national standards do not reveal information relating to any medical condition or other trait."); DNA—Sample Collection and Biological Evidence Preservation in the Federal Jurisdiction, 73 Fed. Reg. 74,932, 74,933 (Dec. 10, 2008) (codified at 28 C.F.R. § 28) (DNA profiles "do not disclose an individual's traits, disorders, or dispositions").

[209] H.R. REP. NO. 106-900(1), at 27 ("By design, the effect of the system is to provide a kind of genetic fingerprint, which uniquely identifies an individual, but does not provide a basis for determining or inferring anything else about the person."); DNA—Sample Collection, 73 Fed. Reg. at 74,933 ("DNA profiles that are entered into CODIS . . . amount to 'genetic fingerprints' that can be used to identify an individual uniquely . . . .").

[210] Maryland v. King, 133 S. Ct. 1958, 1968 (2013).

[211] *See* Brief of Genetics, Genomics and Forensic Science Researchers as Amici Curiae in Support of Neither Party, at 2–3, *King*, 133 S. Ct. 1958 (No. 12-207). Furthermore, using the phrase "junk regions" invites confusion with the venerable but subtle theory that the specific base-pair sequences in many stretches of DNA have no effect on individuals' reproductive fitness even if the "junk regions" have some evolutionary importance. *See id*. at 25; *see also* David Kaye, *"Open to Dispute": CODIS STR Loci as Private Medical Information*, FORENSIC MAG. (May 28, 2014, 8:27 AM), http://goo.gl/BasjLY.

[212] *See* Brief of Genetics, *supra* note 211, at 37.

[213] CODIS profiles can be used to detect trisomies (an extra chromosome), but these conditions are either fatal or grossly apparent. *See id*. at 15 n.10; 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, 77 n.34 (2007).

determine, for instance, an arrestee's predisposition for a particular disease or other hereditary factors not relevant to identity, that case would present additional privacy concerns not present here."[214] In contemplating such trait-identification, it should be clear that the magnitude of those concerns would depend on the trait. For example, if individuals with one allele had predictably larger hands or longer eyebrows than those with other alleles, there would no cause for concern.[215] These are not especially private traits. Less visible traits—say, slight differences in the size of the vermiform appendix—also may be inconsequential; hence, using coding loci that convey information about traits like these would not be objectionable. Furthermore, even loci that are clinically relevant might not create a meaningful threat to privacy. Suppose, for example, that a locus affected the metabolism of drugs used to treat a rare neurological disorder—individuals with one allele would be good candidates for one drug therapy, but other patients would do better with a second drug.[216] It is not obvious how including this locus in a database profile would present a meaningful privacy concern. Police could not use the clinically relevant aspect of the DNA sequence to hurt or help anyone in the database. Consequently, "hereditary factors" that go beyond identification might present no meaningful privacy concerns, and the "additional privacy concerns" would be a feather on the balance.

But many inherited traits are far more problematic. Suppose that a CODIS locus unexpectedly turns out to reveal highly sensitive medical information—for example, that an individual is almost surely a carrier of a life-threatening, recessive, hereditary disease such as Meckel-Gruber syndrome or is at an elevated risk for a particular mental illness. The simplest way to restore the previous level of scientific safeguards would be to retire this locus from the CODIS system.[217] Moreover, even under this

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[214] *King*, 133 S. Ct. at 1979.

[215] Yet, a brief written by Brandon Garrett and Erin Murphy and signed by twelve other law professors presented DNA tests for "sex, relatedness, eye color, hair color, and continental ancestry" as well as "freckles, moles, curly hair, skin color, earlobe shape, [and] body height." Brief of 14 Scholars of Forensic Evidence as Amici Curiae Supporting Respondent at 39, *King*, 133 S. Ct. 1958 (No. 12-207). These tests were supposedly good examples of the "intrusive nature" of DNA technology, *id.* at 36, and the disturbing "secrets that a DNA sample can unlock" *id.* at 38. Most of these "secrets" do not seem either "secret" or "intrusive." As Judge Carlos Lucero observed, even if DNA database samples were mined for clues as to visible traits, the information could not be considered deeply private. *See* United States v. Pool, 621 F.3d 1213, 1230 (9th Cir. 2010) (Lucero, J., concurring), *vacated as moot*, 659 F.3d 761, 761 (9th Cir. 2011) (en banc).

[216] Less hypothetically, one's ABO blood group is vital information for blood transfusions, but it does not raise a grave privacy concern.

[217] Dropping a locus would reduce the statistical power of a database match, but with the impending expanded set of CODIS loci, *see* Douglas R. Hares, Letter to the Editor,

worst-case scenario, the constitutional calculus might not change—if there are sufficient "statutory protections."[218] In this regard, the Court quoted language in *Whalen v. Roe*[219] about the salutary effect of "a statutory or regulatory duty to avoid unwarranted disclosures."[220] Because of such protections and a history devoid of privacy breaches, the *Whalen* Court rejected a constitutional challenge to a New York database of everyone's prescriptions for controlled substances. If a state can be trusted to safeguard a database that records who is actually taking psychotropic medications, how can it not be trusted to safeguard a database that merely hints at who might need these medications?

At present, the statutory protections against unauthorized disclosure (to insurers, employers, or anyone else) help assure that the DNA *sample* from which the medically uninformative identification profile is obtained is not used to infringe legitimate individual interests.[221] If this assurance is sufficient for that purpose—if, as a multitude of courts have held, we can trust the government not to genotype samples for health-related loci or to release these samples to insurers or employers[222]—then it is not obvious why the Court should not also trust the government to avoid disclosing the alleles that comprise the identification profile. In any event, if biomedical research changes the usable information content of DNA profiles, it will be necessary to rebalance the possible invasion of individual interests in medical privacy against the value of the database to the government. In doing so, the Court should attend to the nature and social significance of the new information in the profiles as well as the efficacy of the statutory safeguards. And in rebalancing, it would be fallacious to assume that all relationships between a locus and a phenotype automatically render the

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Expanding the CODIS Core Loci in the United States, 6 FORENSIC SCI. INT'L: GENETICS e52 (2012), there is more than enough power to discriminate among individuals, at least "for single-source profile comparisons and international data sharing," Jianye Ge et al., *Developing Criteria and Data to Determine Best Options for Expanding the Core CODIS Loci*, 3 INVESTIGATIVE GENETICS 1, 1 (2012). Even so, altering the CODIS loci is not a step to be taken lightly.

[218] *King*, 133 S. Ct. at 1980.

[219] Whalen v. Roe, 429 U.S. 589, 605 (1977).

[220] *King*, 133 S. Ct. at 1980 (internal quotation marks and citation omitted).

[221] *See, e.g.*, MD. CODE ANN. PUB. SAFETY §§ 2-505(b), 2-506 (LexisNexis 2011); D.H. Kaye, *Behavioral Genetics Research and Criminal DNA Databanks*, 69 LAW & CONTEMP. PROBS. 259, 276–84 (2006).

[222] A lack of adequate safeguards would undermine the many cases upholding DNA sampling after conviction.

system unreasonable.[223] Much depends on the predictive value of the locus and the particular phenotype.

B. FROM "SERIOUS OFFENSES" TO UNIVERSAL COVERAGE

1. *The Seriousness of an Offense*

California's popularly enacted Proposition 69 extends DNA-BC to "*all* felonies, including simple drug possession, joyriding, unlawfully subleasing a car, or taking $250 worth of nuts from an orchard"[224]—a point that the American Civil Liberties Union is pressing in a case reargued twice en banc, then remanded, in the Ninth Circuit.[225] The federal DNA database law is even more capacious. It covers all offenses for which a custodial arrest is made, no matter how trivial the transgression. Parking illegally on federal land or water skiing in a prohibited area is enough to permit an arrest.[226] How vulnerable are these laws to Fourth Amendment challenge?

The *King* majority cautioned that "the necessary predicate of a valid arrest for a serious offense is fundamental,"[227] but the dissenters could not "imagine what principle could possibly justify this limitation . . . ."[228] In the dissenters' view:

> If one believes that DNA will "identify" someone arrested for assault, he must believe that it will "identify" someone arrested for a traffic offense. This Court does not base its judgments on senseless distinctions. At the end of the day, *logic will out*. When there comes before us the taking of DNA from an arrestee for a traffic violation, the Court will predictably (and quite rightly) say, "We can find no significant difference between this case and *King*." Make no mistake about it: As an entirely predictable consequence of today's decision, your DNA can be taken and entered into a national DNA database if you are ever arrested, rightly or wrongly, and for whatever reason.[229]

A balancing test, however, leaves room for different outcomes. Although "[p]eople detained for minor offenses can turn out to be the most

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[223] *Cf. generally* David H. Kaye, Commentary, *Two Fallacies About DNA Data Banks for Law Enforcement*, 67 BROOK. L. REV. 179 (2001) (arguing against a rule that would forbid the use of any and all coding loci).

[224] Plaintiffs-Appellants' Supplemental Brief Re: *Maryland v. King* at 3, Haskell v. Harris, 669 F.3d 1049 (9th Cir. 2013) (No. 10-15152) (citation omitted).

[225] *See* Haskell v. Harris, 745 F.3d 1269 (9th Cir. 2014) (en banc); *see also* People v. Buza, 129 Cal. Rptr. 3d 753 (Cal. Ct. App. 2011), *rev. granted*, 262 P.3d 854 (Cal. 2011), *vacated*, 302 P.3d 1051 (Cal. 2013) (ordering reconsideration in light of *Maryland v. King*).

[226] *See* United States v. Kriesel, 720 F.3d 1137, 1162 (9th Cir. 2013) (Reinhardt, J., dissenting).

[227] Maryland v. King, 133 S. Ct. 1958, 1978 (2013).

[228] *Id.* at 1989 (Scalia, J., dissenting).

[229] *Id.*

devious and dangerous criminals,"[230] on average, people arrested for minor traffic offenses are less likely to be hiding their true identities and to have incriminating DNA samples at crime scenes than are people arrested for far more serious matters.[231] Under free-form balancing, this is a logically relevant consideration.[232] Whether this difference is significant enough to change the outcome is debatable of course,[233] but the outcome is not "entirely predictable."[234]

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[230] Florence v. Bd. of Chosen Freeholders, 132 S. Ct. 1510, 1520 (2012).

[231] *Cf. King*, 133 S. Ct. at 1974 ("Pretrial release of a person *charged with a dangerous crime* is a *most* serious responsibility." (emphasis added)).

[232] In *Haskell v. Harris*, the United States seemed to argue to the contrary:

> If the term "serious offense" did carry any meaning in *King*, . . . [it] includes any crime for which an individual is arrested and booked in police custody. This meaning is logical, not only because the Court analyzed DNA fingerprinting as a "booking procedure," but also because it analogized DNA fingerprinting to traditional "fingerprinting and photographing."

Brief for the United States as Amicus Curiae in Support of Appellees and Affirmance at 7–8, Haskell v. Harris, 745 F.3d 1269 (9th Cir. 2013) (No. 10-15152) (citations omitted). This "logic," however, is specious. That DNA sampling is a permissible part of the bookkeeping process for an individual placed in custody for offense *A* does not imply that it also is permissible for offense *B* unless *B* = *A* in all relevant respects. There is no a priori logical reason to assume that all offenses are so fungible. Similarly, even though DNA is like friction-ridge skin because both can be used to differentiate among individuals, it does not necessarily follow that the two identifiers are equivalent in other respects. The real issue under *King* is whether the government's interests in acquiring DNA profiles are so reduced with respect to lesser offenses that the government's demand for the DNA is unreasonable. This is a question of practical reason, not of deductive logic or word games. *See* David H. Kaye, *Get Serious: The US Department of Justice's Amicus Brief in* Haskell v. Harris, FORENSIC SCI. STATISTICS & LAW (Dec. 6, 2013), http://goo.gl/7T2ZbU.

[233] Commentators who are critical of *King* tend to read the case broadly. For example, Professor Murphy concludes that the Kennedy majority did not even "*attempt*[] to limit its holding" to serious crimes. *See* Murphy, *supra* note 66, at 171. Professor Elizabeth Joh thinks that "*King* does little to limit states from expanding the scope of their arrestee profiles to all arrestees, regardless of the severity of the offense." Elizabeth E. Joh, Maryland v. King*: Policing and Genetic Privacy*, 11 OHIO ST. J. CRIM. L. 281, 289 (2013). Judge Milan Smith, who wrote the panel opinion upholding California's law before *Maryland v. King*, likewise concluded after *King* that DNA collection "is clearly constitutional as applied to anyone arrested for, or charged with, a felony offense by California state or local officials." Haskell v. Harris, 745 F.3d 1269, 1271 (9th Cir. 2014) (en banc) (Smith, J., concurring) (internal quotation marks omitted). The remainder of the en banc court did not express an opinion on whether *King*'s approval of DNA-BC reaches beyond the specific felony offenses that trigger DNA collection in Maryland. *See* David H. Kaye, *The Ninth Circuit's Minimal Opinion in* Haskell v. Harris, FORENSIC SCI. STATISTICS & LAW (Mar. 22, 2014), http://goo.gl/Zo39NL (discussing the logic of the per curiam opinion).

[234] The right to trial by jury depends on the seriousness of the offense. *See, e.g.*, Baldwin v. New York, 399 U.S. 66, 69 (1970) (crime punishable by six months' imprisonment triggered the right). It does not follow, however, that the requirement of a serious charge has the same content in other contexts. *See, e.g.*, Scott v. Illinois, 440 U.S. 367, 373 (1979) (for the right to appointed counsel, "actual imprisonment [is] the line").

2. *The Necessity of an Arrest Founded on Probable Cause*

If the dissenting Justices were correct in lamenting that "your DNA can be taken and entered into a national DNA database if you are ever arrested, rightly or wrongly, and for whatever reason,"[235] and if a "wrongful" arrest means one without probable cause, then everyone could be rounded up (arrested on no basis whatsoever) and typed. If such a case ever arose, and the dissenters did not have the votes to overrule *King*, they certainly would argue that *King* simply does not apply. And they would be correct. It would be perverse for any Justice to maintain that the government must be free to retain *wrongfully acquired* samples and profiles just because *King* holds that it is permissible to acquire these items from *properly arrested* individuals. Justice Kennedy's opinion plainly rests on the legitimacy of the arrest that prompted the DNA collection.[236]

Suppose, however, that an encounter that prompts DNA sampling did not reach the point of a custodial arrest. Briefly stopping a person on foot or in a vehicle to investigate suspicious activity is a seizure, but it does not require probable cause or a warrant.[237] It has been said that *King* "invites (and nearly decides)"[238] that DNA collection and on-the-spot profiling would be permissible to establish the true identity of the suspect and, presumably, to quickly trawl the DNA database of unsolved crimes (called a "forensic index"[239]). However, this expansive reading of the majority opinion ignores the majority's major justification for balancing—the lack of individual discretion in electing to take DNA from a custodial arrestee[240]—and it presumes that the Court would see the balance as unchanged, even though (1) the government interests would be different[241] and (2) the

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[235] *King*, 133 S. Ct. at 1989 (Scalia, J., dissenting).

[236] *King*, 133 S. Ct. at 1980 (majority opinion) (stating that "once respondent's DNA was *lawfully collected* the STR analysis of respondent's DNA pursuant to CODIS procedures did not amount to a significant invasion of privacy that would render the DNA identification impermissible under the Fourth Amendment" (emphasis added)).

[237] *See* Terry v. Ohio, 392 U.S. 1, 16, 30 (1968) (allowing the stopping and frisking of individuals on the street); *see also* Berkemer v. McCarty, 468 U.S. 420, 439 (1984) (analogizing "the usual traffic stop" to a *Terry* stop rather than to custodial arrest that would trigger the protections of *Miranda v. Arizona*, 384 U.S. 436 (1966)).

[238] Joh, *supra* note 233, at 291.

[239] David H. Kaye, *The Dictionary and the Database*, 53 JURIMETRICS J. 389, 391 (2013).

[240] *See infra* text accompanying note 265.

[241] *King*, 133 S. Ct. at 1972 ("Second, law enforcement officers bear a responsibility for ensuring that the custody of an arrestee does not create inordinate risks for facility staff, for the existing detainee population, and for a new detainee." (internal quotation marks and citation omitted)); *id.* at 1973 ("Fourth, an arrestee's past conduct is essential to an assessment of the danger he poses to the public, and this will inform a court's determination whether the individual should be released on bail.").

individual would have enhanced "expectations of privacy"[242] outside of jail. Nevertheless, under the broader biometric-data exception, the Court could reach this result, at least for a conceivable technology that would generate DNA profiles, in a matter of minutes. Some police departments use mobile fingerprint scanners to "help us ID folks who try to be misleading."[243] Presumably, this demand for a suspect to cooperate in identifying himself via mobile fingerprint scanning is constitutional.[244] If a mobile DNA scanner could perform the same function[245] with no greater risk of sensitive trait-identification,[246] why should its use be treated any differently?

3. *Programs for DNA Sampling Without Arrests or Stops*

Even if *King* does not invite the police to acquire samples wrongfully (and risk exclusion of the resulting evidence),[247] what about a system that acquired DNA from everyone without trampling on their Fourth Amendment right to freedom from arbitrary arrests? What if the state made DNA donation at the time of taking a driving test a condition for issuing a driver's license? What if neonatal screening tests for genetic conditions now performed as a public health measure (and thus permissible under a special needs analysis) were expanded to include STR profiling, with the identification profiles uploaded to law enforcement databases? Police never would touch these samples (or the babies), but they could upload the profiles into databases encompassing entire local, state, or national populations.[248] Universality would remove the disparate impact by race and

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[242] *Id*. at 1979 (quoted in full *infra* text accompanying note 258). However, the diminished expectations of privacy incident to extended detention flow from the fact that government has chosen to jail the suspect. They should not be seen as an independent government interest. *See* Kaye, *A Fourth Amendment Theory*, *supra* note 124, at 1133.

[243] Bianca Cain Johnson, *Fingerprint Scanner Paying Off for Richmond County Police*, AUGUSTA CHRON. (June 17, 2013, 5:28 AM), http://goo.gl/eLvnvs.

[244] *Cf*. Hiibel v. Sixth Judicial Dist. Court, 542 U.S. 177, 186–87 (2004) (upholding punishment for failing to provide a name as required by a "stop and identify" statute).

[245] Such nearly instantaneous DNA scanners are still science fiction. The fastest system for forensic STR profiling requires about ninety minutes to generate a profile. *See* John W. Blackledge et al., *Rapid DNA*, 14 NAT'L ACAD. ASSOC. 14, 16 (May/June 2012), *available at* http://goo.gl/3mrJFd; Press Release, IntegenX® Announces First State-Wide Deployment of the RapidHIT® System with SmallPond™ at Arizona Department of Public Safety (May 13, 2014), *available at* http://goo.gl/hj7Egz ("less than two hours").

[246] On the limited value of CODIS loci for trait-identification, see *infra* Part III.A. Retaining the DNA sample would pose a possible threat to informational privacy, but such retention is no more necessary than is retaining a driver's license produced in response to a police demand for identification.

[247] *See infra* note 272 and accompanying text.

[248] *See* David H. Kaye & Michael E. Smith, *DNA Identification Databases: Legality, Legitimacy, and the Case for Population-Wide Coverage*, 2003 WIS. L. REV. 413, 438; David

class that infuses a system in which acquisition of samples turns on contact with the police.[249] It would intensify the level of public concern for and scrutiny of any abuses in the databases' operation.[250] It would enable police to start with a more complete list of individuals with matching DNA, avoiding the tunnel vision that can follow from too narrow a pool of initial suspects.[251] It would render lingering arguments about population frequencies for DNA profiles and database search statistics[252] essentially irrelevant. It would largely obviate any need for local "DNA dragnets,"[253] "familial searches,"[254] and small DNA databases operating independently of the statutorily specified state and national systems.[255] It would be helpful in

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H. Kaye et al., *Is a DNA Identification Database in Your Future?*, 16 CRIM. JUST. 4, 5–9, 19 (2001).

[249] The FBI reports that the distribution of arrests by race was 69.2% white, 28.4% black, 1.5% Native American, and 0.9% Asian or Pacific Islander. FED. BUREAU OF INVESTIGATION, U.S. DEP'T OF JUSTICE, UNIFORM CRIME REPORTS: CRIME IN THE UNITED STATES 2011, at tbl.43A, http://goo.gl/g9UYgb. Blacks compose about 13.6% of the U.S. population. THE BLACK POPULATION: 2010, U.S. CENSUS BUREAU (Sept. 2011), http://goo.gl/xZvRxI. Thus, an African-American faced about twice the risk of being arrested as would be predicted for a system in which arrests and race were entirely uncorrelated. This disparity is less pronounced, however, than that for blacks sentenced to prison. Almost 38% of all convicted prisoners were black—a considerably higher proportion than that for arrestees, according to the figures in BUREAU OF JUSTICE STATISTICS, PRISONERS IN 2011, at 7 tbl.7 (2012).

[250] *See* Paul M. Monteleoni, Note, *DNA Databases, Universality, and the Fourth Amendment*, 82 N.Y.U. L. REV. 247, 274 (2007).

[251] *See* Keith A. Findley & Michael S. Scott, *The Multiple Dimensions of Tunnel Vision in Criminal Cases*, 2006 WIS. L. REV. 291, 292 ("A theme running through almost every [exoneration] . . . is the problem of tunnel vision . . . that lead[s] actors in the criminal justice system to focus on a suspect, select and filter the evidence that will build a case for conviction, while ignoring or suppressing evidence that points away from guilt." (internal quotation marks and citation omitted)).

[252] *See, e.g.*, People v. Koua Xiong, 155 Cal. Rptr. 3d 877, 886–92 (Cal. Ct. App. 2013); Derr v. State, 73 A.3d 254, 275–78 (Md. 2013); David H. Kaye, *Trawling DNA Databases for Partial Matches: What Is the FBI Afraid Of?*, 19 CORNELL J.L. & PUB. POL'Y 145, 153 (2009).

[253] *See, e.g.*, Edward J. Imwinkelried & D.H. Kaye, *DNA Typing: Emerging or Neglected Issues*, 76 WASH. L. REV. 413, 443–45 (2001).

[254] *Compare* Erin Murphy, *Relative Doubt: Familial Searches of DNA Databases*, 109 MICH. L. REV. 291 (2010) (arguing that trawling DNA databases to locate a relative who might be the source of crime-scene DNA that partially matches a DNA profile in the database is unconstitutional and problematic), *with* Henry T. Greely et al., *Family Ties: The Use of DNA Offender Databases to Catch Offenders' Kin*, 34 J.L. MED. & ETHICS 248 (2006) (discerning fewer fundamental problems with such near-miss searching), *and* David H. Kaye, *The Genealogy Detectives: A Constitutional Analysis of "Familial Searching,"* 51 AM. CRIM. L. REV. 109 (2013) (arguing that the practice, if implemented carefully, is constitutional).

[255] *See* Joseph Goldstein, *Police Agencies Are Assembling Records of DNA*, N.Y. TIMES, June 13, 2013, at A1. To the extent that the national system lags behind state-of-the-art

cases of identifying bodies (or body parts) that might be from missing persons in isolated cases or in mass disasters. Although it may be a nonstarter politically, the case for a population-wide database is not frivolous.[256]

At this point, however, the Justices have stayed as far away as possible from suggesting or endorsing any such possibility. At oral argument several Justices questioned counsel for Maryland intently on how a ruling could be confined to lawbreakers, and the state and federal government tried to assure the Justices that they need not adopt reasoning that would imply that a population-wide database would pass constitutional muster.[257] The majority then took pains to confine its reasoning to arrestees. Justice Kennedy wrote:

> [T]he search here at issue differs from the sort of programmatic searches of either the public at large or a particular class of regulated but otherwise law-abiding citizens that the Court has previously labeled as "'special needs'" searches. When the police stop a motorist at a checkpoint or test a political candidate for illegal narcotics, they intrude upon substantial expectations of privacy. So the Court has insisted on some purpose other than "to detect evidence of ordinary criminal wrongdoing" to justify these searches in the absence of individualized suspicion. Once an individual has been arrested on probable cause for a dangerous offense that may require detention before trial, however, his or her expectations of privacy and freedom from police scrutiny are reduced. DNA identification like that at issue here thus does not require consideration of any unique needs that would be required to justify searching the average citizen. The special needs cases, though in full accord with the result reached here, do not have a direct bearing on the issues presented in this case, because unlike the search of a citizen who has not been suspected of a wrong, a detainee has a reduced expectation of privacy.[258]

The Court's claim that the primary purpose limitation on the special needs exception does not apply because arrestees have "a reduced

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techniques for coping with mixed crime scene samples and kinship searches or has slow response times, however, local databases might remain attractive. *See, e.g.*, Ben Finley, *Bensalem Police Try Rapid DNA Testing*, PHILA. INQUIRER, Nov. 20, 2013, at B3.; Press Release, SmallPond Announces LODIS Migration Program (Aug. 21, 2013), http://goo.gl/nEp19F; Press Release, *supra* note 245.

[256] Akhil Reed Amar, *A Search for Justice in Our Genes*, N.Y. TIMES, May 7, 2002, at A31; Kaye & Smith, *supra* note 248, at 439–40; Kaye et al., *supra* note 248, at 6; Richard Lempert, Maryland v. King*: An Unfortunate Supreme Court Decision on the Collection of DNA Samples*, BROOKINGS INST. (June 6, 2013, 11:38 AM), *available at* http://goo.gl/xAT64S; Michael Seringhaus, Op-Ed, *To Stop Crime, Share Your Genes*, N.Y. TIMES, Mar. 15, 2010, at A23.

[257] *See* David H. Kaye, *The Oral Argument in* Maryland v. King*—Part I*, FORENSIC SCI. STATISTICS & LAW (Mar. 2, 2013), http://goo.gl/yHPeL4.

[258] Maryland v. King, 133 S. Ct. 1958, 1979 (2013) (internal citations omitted).

expectation of privacy" is vacuous.[259] To be sure, arrestees may be searched in ways inapplicable (thankfully) to people who are not in police custody. For example, more thorough searches for weapons or evidence can be conducted at detention facilities.[260] But the existence of special interests in jail security and the search incident to arrest exception to the per se rule do not render the arrestee's interests in being free from DNA sampling and profiling any different from the same interests prior to arrest. The argument that arrestees are in a unique category just because they have been arrested is an empty tautology. The only relevant distinction between arrestees and the rest of the population is that the state's interests in acquiring profiles and trawling for matches are greater in the case of arrestees. The individual's interests are no less.

Thus, the gravamen of the majority opinion is that an arrest itself brings to bear a dominant set of state interests relating to pretrial supervision. By definition, these interests are not applicable to individuals who never have been arrested—even if these other individuals are equally likely to be traceable through DNA from crime scenes. In addition, arrestees may differ from the general population to the extent that arrestee DNA is more likely to be productive in generating matches than is nonarrestee DNA. To that extent, arrestee DNA is especially valuable for the pretrial processing on which the *King* majority rested its hat, further supporting the view that *King*'s reach extends no farther than to properly arrested individuals.

This is so even though the dissent was correct to maintain that the pretrial supervision rationale was practically fictitious as applied to the particular facts and timing of the belated DNA trawling in *King*. The Court could have written an opinion that approved of DNA-BC only in jurisdictions that processed samples very quickly or only in those cases in which the processing was speedy enough to maximize all the potential benefits that the Court ascribed to a DNA-BC program. The majority settled on a broader but more easily administered rule to make DNA-BC practical in a world with variations in the effectiveness of these programs across jurisdictional space and over time. Although this result seems to give states that currently are taking months to process arrestee samples a free ride, the majority maintained that even long delays in processing these

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[259] As explained *supra* Part II.C, this limitation on special needs balancing should not apply for a different reason. The limitation should not apply because it is inconsistent with the *raison d'être* of the special needs exception. The exception exists because the normal calculus of state and individual interests that undergirds the per se unreasonable rule is inapposite whenever the state has more than the normal interest in finding evidence of criminality for the purpose of investigation or prosecution.

[260] *See generally, e.g.*, Florence v. Bd. of Chosen Freeholders, 132 S. Ct. 1510 (2012).

samples did not make them useless.[261] Thus, the Court's rather generic approval of DNA-BC is defensible on the ground that it would be difficult to develop a workable basis for deciding just when a state is moving fast enough in processing arrestee samples to achieve enough of the pretrial benefits that the majority enumerated. Moreover, although DNA processing backlogs are a perennial problem, they do come and go.[262] With current technology, DNA testing *can be* a significant appurtenance to, if not an equal partner of, fingerprinting for pretrial supervision.[263] Justice Kennedy's opinion therefore empowers governments to adopt and implement legislation that could bring about this result, even if this outcome is not achieved immediately and in all cases.

To extend the result in *King* to a population-wide system, however, the majority would have to move beyond its pretrial processing and supervision theory. First, it would have to determine whether direct balancing should be used when the state advances only interests in developing evidence for use in criminal investigations, prosecutions, and some different ancillary purposes, such as locating missing persons. Second, if the Court applied direct balancing (or special needs balancing, or balancing to decide whether DNA profiling belongs in a new categorical exception to the per se unreasonable rule), it would have to decide whether these interests outweigh those Fourth Amendment interests that would support an individual's asserted right to keep DNA to himself. Although a categorical exception should apply to a carefully designed and administered system, this conclusion is a judgment that depends on an assessment of facts about the nature and implications of DNA profiling and identification. Pure logic—at least, the logic of the *King* opinion—does not dictate that the Court arrive at that endpoint.[264] There is a reasonable argument for the

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[261] Justice Kennedy wrote that DNA-BC is still useful for pretrial decisions even when it takes months to obtain results and even when an individual has been released pending trial. *King*, 133 S. Ct. at 1974 (discussing the long period of detention that can precede conditional release of an arrestee and the possibility of revoking probation in light of a DNA match).

[262] *See, e.g.*, Associated Press, *FBI Lab Reduces DNA Case Backlog 87 Percent*, FORENSIC MAG. (Sept. 25, 2012 8:00 PM), http://goo.gl/OT9Wnn; Melinda DeSlatte, *State Police Crime Lab Wipes Out Case Backlog*, FORENSIC MAG. (July 24, 2013, 11:19 AM), http://goo.gl/qAOm9G; Jason Stein & Ryan Haggerty, *Backlog of DNA Cases Eliminated*, MILWAUKEE J. SENTINEL, Apr. 22, 2010, at B1; Juan A. Lozano, *Houston Praised for Handling of Rape Kit Backlog*, NBCDFW.COM (Oct. 9, 2013, 7:08 AM), http://goo.gl/pqhYV1.

[263] *See infra* text accompanying note 293.

[264] *But see* Lempert, *supra* note 256 ("*King* is precedent for establishing a national DNA database since it is hard to imagine any principled distinction between King while he stands unconvicted and ourselves. (The only salient difference, that an arrest requires probable cause, is too thin a reed for any but the most cynical to rest upon.)"). Moreover, one explicit rationale of *King* does support universality. Justice Kennedy wrote that "the identification of

constitutionality of a population-wide database, but the *King* opinions do not make that argument.

C. UNIFORMITY OF APPLICATION

A key factor in the majority's approval of direct reasonableness balancing was that "the search involves no discretion that could properly be limited by the interpo[lation of] a neutral magistrate between the citizen and the law enforcement officer."[265] In other situations, such as roadblocks for drunken driving, the uniformity or randomness of the impositions on affected individuals has been important. If government officials were left to pick and choose among arrestees, the necessary "family resemblance" for engaging in direct balancing might be absent,[266] and the DNA sampling should be impermissible under the usual per se rule for warrantless searches.

Although DNA database statutes require collection and profiling for all individuals arrested for qualifying offenses, enormous discretion can be exercised in deciding whether to make an arrest. As long as probable cause exists, police are free to arrest anyone just to obtain a DNA profile. Such pretextual arrests are permitted under *Whren v. United States*.[267] In *Whren*, plainclothes vice-squad officers in an unmarked car in a high-crime area followed a truck with two young men in it that sped off after sitting idle at an intersection for an unusually long time. They overtook the truck and ordered the driver to pull over. Approaching the driver's window, the vice-squad officer saw plastic bags of what appeared to be crack cocaine. Charged with violating various federal drug laws, the two men argued that the police lacked even reasonable suspicion to think that they were engaged in illegal drug dealing activity and that the officer's "asserted ground for approaching the vehicle—to give the driver a warning concerning traffic violations—was pretextual."[268]

In an opinion by Justice Scalia, the Court unanimously rejected "any argument that the constitutional reasonableness of traffic stops depends on

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an arrestee as the perpetrator of some heinous crime" could "prevent the grotesque detention of . . . innocent people." *King*, 133 S. Ct. at 1974 (internal quotation marks and citation omitted). One can say the same thing about identifying a nonarrestee as the perpetrator of a crime.

[265] *Id.* at 1969 (alteration in original) (internal quotation marks and citation omitted).

[266] I say "might be" because the Court did not question the status of *Samson* and *Knights* as direct balancing cases, even though police were free to decide whether or not to search the probationer or parolee. Evidently, this particular feature, although important, is not essential to the requisite family resemblance. *See* Samson v. California, 547 U.S. 843, 846–47 (2006); United States v. Knights, 534 U.S. 112, 115 (2001).

[267] 517 U.S. 806 (1996).

[268] *Id*. at 809.

the actual motivations of the individual officers involved."[269] "[T]hat the officers had probable cause to believe that petitioners had violated the traffic code . . . rendered the stop reasonable under the Fourth Amendment . . . ."[270] The same would be true of an arrest actually motivated by the desire to acquire a DNA profile. Probable cause to believe that the individual committed a qualifying crime would render the arrest—and the DNA collection—reasonable under the Fourth Amendment.

Although the *Whren* doctrine of strictly objective cause is unnerving, the *King* majority's position that a magistrate's review would serve no purpose in confining police discretion as to DNA profiling is correct. Certainly, a judge should—and must—verify the existence of probable cause for an arrest to justify continued detention.[271] But what individualized determination could the magistrate make about DNA profiling beyond the legislative classification that DNA from all people arrested for qualifying offenses is worth acquiring and analyzing? Unlike the commonsense, practical judgment of whether the available information gives rise to probable cause to believe that a suspect committed a crime, the magistrate would have to identify, within the sets of people arrested for each qualifying offense, the ones who are sufficiently likely to have left DNA at another crime scene. If the legislative classification is already reasonable, and if everyone who is arrested must provide a sample, then the magistrate has nothing left to decide.

Furthermore, police may not have much incentive to arrest simply as a way to acquire a DNA sample. First, they would have to be confident that they have probable cause for the arrest. If the arrest is deficient, the DNA match that follows might have to be suppressed along with all derivative evidence.[272] Second, in most jurisdictions, police and prosecutors have mechanisms to compel a suspect to submit to DNA testing on a lesser showing than probable cause to believe that the DNA would link the suspect to the crime being investigated. These include grand jury subpoenas, nontestimonial court orders, and surreptitious DNA sampling.[273]

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[269] *Id*. at 813.

[270] *Id*. at 819.

[271] *See* County of Riverside v. McLaughin, 500 U.S. 44 (1991) (requiring a judicial determination within forty-eight hours).

[272] *See* David H. Kaye, *Drawing Lines: Unrelated Probable Cause as a Prerequisite to Early DNA Collection*, 91 N.C. L. REV. ADDENDUM 1, 9–10 (2012).

[273] No court has treated collecting shed or inadvertently abandoned DNA as a search. *See* Albert E. Scherr, *Genetic Privacy and the Fourth Amendment: Unregulated Surreptitious DNA Harvesting*, 47 GA. L. REV. 445, 454 (2013). Police acting without a warrant and without probable cause acquire DNA profiles from unsuspecting individuals by inviting them to lunch, Ray Delgado, *How Cop Got DNA to Nail Rapist: She Got Suspect to Drink Soda, Then Snatched Straw*, S.F. CHRON. (Aug. 14, 2001, 4:00 AM),

The additional ability to arrest someone when unrelated probable cause is present might not produce a great uptick in warrantless DNA collection.[274]

In short, from both doctrinal and practical perspectives, the power that *Whren* leaves with police to make pretextual arrests does not vitiate the Court's reliance on the absence of discretion in deciding to collect DNA from an arrestee. Doctrinally, the Court always has upheld programs of inventory searches that are justified by interests other than producing evidence in criminal investigations as long as they are performed uniformly rather than arbitrarily.[275] DNA-BC, like any of these other programs, can be abused, but the problem of pretextual arrests for DNA is not so much more acute as to demand a different outcome.

D. NO BODILY INTRUSION

All the Justices seem to agree that the physical intrusion of buccal swabbing is minor. Obviously, this fact is critical to the majority's balancing. But suppose that the dissent were correct in proposing that even the most trivial physical intrusion justifiably triggers its categorical rule. A state could collect DNA even less intrusively. At some point, would the collection fall below the threshold of oppressiveness required for a "search" to exist? For example, the government might only ask for a hand to be placed on a sticky pad so that some cells would be deposited for analysis. The dissent might respond that the "proud men who wrote the charter of our liberties would [not] be so eager to [move their limbs] for royal inspection,"[276] but neither would those "proud men" be so eager to have their pictures taken by a royal photographer, and photography itself does

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http://goo.gl/PDNktY; intercepting their plates at a restaurant, Paresh Dave, *Grim Sleeper: Judge Allows DNA Evidence Gathered at Restaurant*, L.A. TIMES (Jan. 7, 2014), http://goo.gl/mcgXUo; following them around in case they spit in a public place, *Commonwealth v. Cabral*, 866 N.E.2d 429, 430 (Mass. App. Ct. 2007); having them sit in an armchair while being questioned, *Raynor v. State*, 29 A.3d 617, 621 (Md. Ct. Spec. App. 2011); sending them forms to return in an envelope that they might lick, *State v. Athan*, 158 P.3d 27, 31–32 (Wash. 2007); keeping the mouthpiece from a breathalyzer into which they were required to blow, *People v. Thomas*, 200 Cal. App. 4th 338, 340 (Cal. Ct. App. 2011); and so on, *see* Amy Harmon, *Lawyers Fight DNA Samples Gained on Sly*, N.Y. TIMES, Apr. 3, 2008, at A1 (collecting instances of surreptitious DNA collection by police).

[274] *Cf.* Murphy, *supra* note 66, at 173 ("As a routine matter, officers during 'stop-and-frisks' ask suspects to 'voluntarily' submit to swabbing. Those arrested for low-level offenses are given the chance to 'spit and acquit.' Police during traffic stops lawfully request swabs to verify identity. And of course any offender actually processed at the precinct has a mug shot and DNA sample taken as a matter of course—if the law does not explicitly allow genetic sampling, then police can simply swab the cuffs or cell.").

[275] *See, e.g.*, Colorado v. Bertine, 479 U.S. 367 (1987) (automobile); Illinois v. Lafayette, 462 U.S. 640 (1983) (arrestee's shoulder bag).

[276] Maryland v. King, 133 S. Ct. 1958, 1989 (Scalia, J., dissenting).

not even rise to the level of a search that requires justification under the Fourth Amendment.[277]

Once DNA sampling is divorced from any intrusion into the body, the property invasion rule that has appealed to many of the Justices in the past few terms to handle GPS surveillance[278] and dog sniffs[279] becomes useless. One must either revert to the murky reasonable expectation of privacy standard of *Katz v. United States*[280] or adopt a broader, ordinary language definition of a search followed by a balancing test.[281] Inasmuch as Justice Scalia's opinion in *King* relies entirely on a physical invasion to trigger the Fourth Amendment,[282] it has nothing to say about the no-physical-intrusion manner of gathering DNA data.[283]

E. OUTER-DIRECTED DATABASE TRAWLING (A.K.A. "FAMILIAL SEARCHING")

Maryland (and Washington, D.C.) explicitly prohibit trawling in a database for the purpose of detecting very close relatives who might be the source of the crime scene sample. The Court noted this part of Maryland's laws,[284] but it did not consider whether this ban actually mattered in its balancing.[285]

Although such "outer-directed" trawling has been criticized as a grave invasion of the privacy of individuals whose DNA is in the database as well

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[277] *See id.* at 1986; *cf.* New York v. Class, 475 U.S. 106, 114 (1986) ("The exterior of a car . . . is thrust into the public eye, and thus to examine it does not constitute a 'search.'").

[278] *See* United States v. Jones, 132 S. Ct. 945, 954 (2012).

[279] *See* Florida v. Jardines, 133 S. Ct. 1409, 1414 (2013).

[280] *See* Kaye, *supra* note 39, at 482 (arguing that the sensitivity of the information in the full genome suffices to make physical DNA sampling a search under *Katz*).

[281] *See* SLOBOGIN, *supra* note 134, at 210 (proposing a "proportionality principle" that "allows courts to modulate the cause needed to carry out physical and transaction surveillance depending on its intrusiveness"); *see also* Amar, *supra* note 45, at 769.

[282] At oral argument, Justice Scalia appeared impatient with questions about a reasonable expectation of privacy and told Mr. King's counsel that "I wouldn't have made the concession that you've made, that this case is about reasonable expectation of privacy. . . . [H]ere, there is a search. You have a physical intrusion. You—you pull a guy's cheek apart and stick a—a swab into his mouth. That's a search, reasonable expectation of privacy or not." Transcript, *supra* note 28, at 34.

[283] Of course, if the Court were to adopt the categorical exception for biometric data to the per se rule and include DNA data within this exception, it would not be necessary to resolve the question of what defines a search. DNA-BC would be constitutional even if it is a search, just as it would be constitutional if it is not.

[284] Maryland v. King, 133 S. Ct. 1958, 1967 (2013).

[285] Some hasty commentary on the day of the opinion saw the opinion as throwing into doubt the constitutionality of outer-directed database trawls. *See, e.g.*, Kashmir Hill, *Supreme Court Thinks DNA Collection Is Awesome, Worth the Invasion of Arrestees' Privacy*, FORBES (June 3, 2013, 6:30 PM), http://goo.gl/Py3pra.

as that of their relatives,[286] the argument seems weak that the practice, if implemented properly, is unconstitutional. But untangling and assessing the argument requires careful attention to the impact of the practice on the interests of both the individual whose profile is in the database and the individual's close relatives. This is not the place to undertake that task.[287] Even if using "familial searching" software and following up on any leads to people outside the database were unconstitutional, that conclusion would not prevent the state from collecting and using DNA profiles from arrestees or convicted offenders with conventional software to generate normal hits within the database.

F. PROFILING BEFORE CHARGING

The *King* decision is limited to a system that defers DNA analysis until charges have been brought. On the one hand, the dissent complained that this delay undercuts the majority's claim that DNA-BC is for authenticating the identity of the arrestee.[288] On the other hand, the majority seemed comforted by the existence of a judicial finding of probable cause to believe that the arrestee is guilty of an offense. In particular, Justice Kennedy wrote that "[o]nce an individual has been arrested on probable cause for a dangerous offense that may require detention before trial, however, his or her expectations of privacy and freedom from police scrutiny are reduced."[289]

Although initially appealing, it is hard to see why a line of constitutional magnitude must be drawn at the point of a probable cause determination. If what the Court meant by reduced "expectations of privacy and freedom" is that the state may subject a prisoner to *other* humiliating and privacy-reducing procedures, such as unannounced inspections of cells and strip searches, then its observation begs the question.[290] That a person

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[286] *See* Murphy, *supra* note 254, at 313–19; *see also* Brief of 14 Scholars of Forensic Evidence, *supra* note 215, at 36–38 (arguing that pursuing leads to relatives through database trawls "may also harm, rather than help, innocent persons" and may reveal "sensitive information").

[287] For one interest-based analysis, see Kaye, *supra* note 254, at 138–61.

[288] *King*, 133 S. Ct. at 1983 (Scalia, J., dissenting) ("Maryland officials did not even begin the process of testing King's DNA that day [of the arrest]. Or, actually, the next day. Or the day after that. And that was for a simple reason: Maryland law forbids them to do so.").

[289] *Id*. at 1978 (majority opinion). In at least one earlier case, the Court spoke of an arrest as reducing expectations of privacy. United States v. Chadwick, 433 U.S. 1, 16 n.10 (1977) ("Unlike searches of the person, searches of possessions within an arrestee's immediate control cannot be justified by any reduced expectations of privacy caused by the arrest." (internal citation omitted)).

[290] *See supra* text accompanying note 259.

loses some—even a great deal of—privacy because he is in custody merely (and obscurely) restates the conclusion that certain searches or seizures are permissible. That conclusion does not automatically reduce the individual's interest in maintaining *other* aspects of privacy. Police may not rush out and search an arrestee's apartment without a warrant just because he has numerically fewer "expectations of privacy and freedom" while in jail.

Nonetheless, a finding of probable cause to hold an individual for trial does justify continued detention, and the state's interests in detaining arrestees and bringing them to trial adds to the justifications for pretrial DNA testing. For example, the majority reasoned that an individual's commission of a crime—say, a brutal rape—unrelated to the arrest might increase his flight risk if he realized that a conviction would require him to provide a DNA sample under the state's convicted offender DNA statute, thereby putting him at risk of a DNA match to the rape.[291] If the individual is not charged after his arrest, however, this justification evaporates. Furthermore, to the extent people who are validly charged are more likely to have committed DNA-related crimes than are people who have been arrested but not validly charged, the state has a greater interest in trawling the crime scene profiles for possible matches.

Consequently, a prosecutor's decision to bring some charges and a judicial finding of probable cause are relevant. But are they decisive? A prosecutor may choose not to pursue a case even when there is probable cause, and a magistrate might mistakenly find that such cause is lacking even when it is actually present. As a consequence, the state would lose the opportunity to discover whether the arrestee is linked to other crimes. Taking DNA and completing a database search immediately avoids this negative impact on the government's interests. As long as DNA sampling is minimally intrusive and the privacy interests in the identification profiles are weak, the net balance of state and individual interests does not seem to change substantially if the DNA sampling and analysis occur at or close to the initial booking,[292] as it can with microfluidic technology.[293]

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[291] *King*, 133 S. Ct. at 1973.

[292] Kaye, *supra* note 272, at 10–11.

[293] *See generally* Catherine Rivet et al., *Microfluidics for Medical Diagnostics and Biosensors*, 66 CHEMICAL ENGINEERING SCI. 1490 (2011) (explaining the technology). On the application of the technology to forensic STR identification, see Andrew J. Hopwood et al., *Integrated Microfluidic System for Rapid Forensic DNA Analysis: Sample Collection to DNA Profile*, 82 ANAL. CHEM. 6991 (2010); Press Release, Bode Technology Offers First Rapid DNA Service Delivering a DNA Profile from Evidentiary Samples in Under 90 Minutes (Aug. 27, 2012), http://goo.gl/PVrZwH; IntegenX Inc., *RapidHIT System Approved to Upload DNA Profiles to National Database*, FORENSIC MAG. (Mar. 19, 2014, 3:43 PM), http://goo.gl/ukhfJK.

G. RETAINING WITHOUT CONVICTING

Finally, the *King* opinions do not address the reasonableness of retaining samples or profiles when a conviction does not follow the arrest. They did not have to, because Maryland law provides for the automatic destruction of samples and records in that situation.[294] But what about a law that allows the state to retain the samples or profiles indefinitely, even in the absence of a conviction or without regard to the desires of the previously detained or convicted individual? The United Kingdom followed this approach until the European Court of Human Rights ruled in 2008 that indefinite retention of fingerprints and DNA profiles and samples violated the provision of Article 8 of the European Convention on Human Rights that "[e]veryone has the right to respect for his private and family life, his home and his correspondence."[295] That court concluded that "the permanent and indiscriminate retention of the fingerprint and DNA records of . . . persons suspected but not convicted of offences . . . constitutes a disproportionate interference with the applicants' right to respect for private life and cannot be regarded as necessary in a democratic society."[296] In response to this rebuke, England now limits retention of fingerprints and DNA profiles, in the absence of a conviction, to five years for certain major offenses and to two years or less for minor ones; DNA samples are to be destroyed within six months of being taken.[297]

As with profiling and trawling before charging in the United States, however, continuing to trawl after charges are dropped or after a defendant is acquitted violates almost no legitimate Fourth Amendment interests.[298] When police show a mugshot of an arrested, but not convicted, defendant to a victim of an assault, they do not engage in a new search or seizure. Nor, for that matter, do they deprive the never-convicted arrestee of due process

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[294] *King*, 133 S. Ct. at 1967. Some other jurisdictions place the burden of requesting expungement on the individual. *See generally* Valerie Werse, Note, *A "Lengthy, Uncertain, and Expensive Process": A Comparison of Types of Expungement from DNA Databases of Arrestees*, 39 RUTGERS COMPUTER & TECH. L.J. 282 (2013). Although this difference could have important practical consequences, it seems too slight to tip the scales against constitutionality. *Cf.* Murphy, *supra* note 66, at 172 ("[I]n some respects the expungement debate seems absurdly academic.").

[295] Regina (S) v. Chief Constable of South Yorkshire Police, [2004] UKHL 39, *rev'd sub nom.*, S. & Marper v. United Kingdom, 2008-V Eur. Ct. H.R. 169 (citing European Convention for the Protection of Human Rights and Fundamental Freedoms art. 8, Nov. 4, 1950, 213 U.N.T.S. 222.).

[296] S. & Marper v. United Kingdom, 2008-V Eur. Ct. H.R. at ¶¶ 117 & 125.

[297] *See Protection of Freedoms Act 2012: How DNA and Fingerprint Evidence Is Protected in Law* (Apr. 4, 2013), http://goo.gl/cBEPRN.

[298] For efforts to canvass the relevant interests, see Kaye, *A Fourth Amendment Theory*, *supra* note 123, at 1135–38; Kaye, *DNA Database Trawls and the Definition of a Search*, *supra* note 192, at 46–49.

of law simply because he is presumed innocent until found guilty beyond any reasonable doubt at trial.[299] Nor, if the photo spread is not unfairly suggestive, do they violate due process, even though there is a risk of misidentification[300]—usually a much greater one than occurs with a DNA profile.[301] Retaining and using the bare profile, then, seems permissible.

However, it is more debatable whether retaining the physical samples creates an unreasonable risk of a harm that comes under the protection of the Fourth Amendment. On the one hand, the state's arguments for indefinite sample retention are far from compelling.[302] On the other hand, it is not likely that police will look through the full genome for the kind of

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[299] *See* David H. Kaye, *Associational Privacy, the Presumption of Innocence, and "Corruption of Blood" as Constitutional Metaphors in the Debate on "Familial Searching*,*"* AMER. CRIM. L. REV. BLOG: MENS REA (Nov. 26, 2012, 10:06 AM), *available at* http://goo.gl/80BzrO.

[300] *See* Simmons v. United States, 390 U.S. 377, 384 (1968).

[301] *See* United States v. Kriesel, 720 F.3d 1137, 1156 (9th Cir. 2013) (Reinhardt, J., dissenting) ("[N]o other investigative tool that we currently use, whether it be voice identification, fingerprinting, handwriting analysis, or any other scientific or semi-scientific method, . . . has nearly as good a record as CODIS."). Opponents of DNA-BC portray association-identification via DNA databases as error-prone or at least not error-free. *See, e.g.*, Murphy, *supra* note 66, at 192 (referring to "DNA typing's own significant history of error—including mixed samples, incompetent analysts, unexpected transfer, and the like—that has led to false accusations and even convictions"); Brief of 14 Scholars of Forensic Evidence, *supra* note 215, at 25–36. It is possible that a large number of innocent suspects have been put on trial and then convicted—and that these mistakes will never see the light of day. *See* William C. Thompson, *The Myth of Infallibility*, *in* GENETIC EXPLANATIONS: SENSE AND NONSENSE 227, 229 (Sheldon Krimsky & Jeremy Gruber eds., 2013) (stating that "the errors we know about may be the tip of an iceberg of undetected or unreported errors"); William C. Thompson, *Tarnish on the 'Gold Standard:' Understanding Recent Problems in Forensic DNA Testing*, CHAMPION, Jan./Feb. 2006, at 10–11 (repeating "the tip of an ominous iceberg" to describe what we know now). One can write scenarios about crime scenes that have been contaminated by planted or inadvertently transferred DNA from innocent individuals who are nonetheless plausible suspects. *See, e.g.*, Henry K. Lee, *How Innocent Man's DNA Was Found at Killing Scene*, S.F. CHRON. (June 26, 2013, 11:07 PM), http://goo.gl/5qEGlE (explaining that paramedics who had been called to a murder scene may have transferred DNA from a murder victim to another man they treated for intoxication hours before). Moreover, identical twins or partly matching individuals could be implicated as a result of a poor crime scene sample that yields a very incomplete profile. Nevertheless, although "a number of false cold hits" have been reported, Thompson, *The Myth of Infallibility*, *supra*, at 230, well-documented examples of false convictions from DNA database trawls are few and far between. *Cf. DNA Blunder: Man Accused of Rape After Human Error*, BBC NEWS (Mar. 21, 2012, 8:40 PM), http://goo.gl/cw2bvz (detailing a case in which rape charges were dismissed following a false match caused by improper re-use of a plastic tray for robotic DNA extraction; subsequent investigation of 26,000 samples extracted with the robotic system revealed "no other cases of contamination").

[302] *See* Kaye, *supra* note 221, at 298–99; David H. Kaye, *Ninth Circuit Upholds Indefinite Retention of DNA Samples: But Why Retain Them?*, FORENSIC SCI. STATISTICS & LAW (Aug. 19, 2013), http://goo.gl/TbT4t7.

information that health insurers might want to know or that they will release database samples to insurers or employers. The *King* majority basically reasoned that statutory protections create a presumption that sensitive data—beyond the individual's apparent link to a crime—will not be disclosed.[303] This presumption of regularity suggests that continued retention is permissible. Nonetheless, under the majority's direct reasonableness standard, it also can be argued that the state has less reason to trawl crime scene databases for matches to people who never have been convicted of the offenses that result in their inclusion in offender or arrestee databases and who no longer are subject to pretrial detention or supervision. When one balances two sets of lightweight interests, the outcome will be close—but of no great moment.

CONCLUSION

Maryland v. King perpetuates doctrinal confusion over the necessary conditions for program-specific balancing. The Court did not consider crafting a new exception for biometric data to the per se rule of unconstitutionality for warrantless searches. Likewise, it apparently did not consider limiting the few cases that speak of a "primary purpose" requirement as a barrier to a richer, multiple-needs basis for balancing. Instead, it sought an opinion that would effect the least apparent change to the existing categorical exceptions to the need for a warrant and probable cause—by working outside that framework. As a result, even though the Justices understood that DNA may solve unrelated cases, the majority strained to justify collecting DNA on grounds specific to pretrial detention. The Justices amassed as many pretrial state interests as they could find—other than the most important one of prosecuting arrestees for other, and possibly more serious, crimes than those for which they were arrested.

This strategy enabled the dissent to chastise the Court for a contrived defense of Maryland's law. But if the majority opinion was factitious, the dissenting opinion was superficial, substituting Fourth Amendment formalism for an assessment of the individual interests at stake. The dissent's theory of what the Amendment requires does not fit all the case law and should not prevent a state from adopting a bona fide multimodal system of biometrics—including DNA along with physical features—for identity authentication and subsequent criminal intelligence gathering made possible by modern databases.

The *King* Court's painfully constricted inquiry into direct reasonableness may have been adequate to resolve the case before it, but it leaves unresolved significant questions about the constitutional limits of

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[303] Maryland v. King, 133 S. Ct. 1958, 1979–80 (2013).

DNA databases. These questions would be more credibly handled by incorporating the criminal-intelligence benefits of DNA databases into the balancing test. This balancing could occur either in the Court's exceptions for special needs when programs do more than seek evidence about crimes or, better still, in the course of framing a categorical exception to the per se unreasonable rule for all biometric identifiers that are minimally invasive to Fourth Amendment interests and that substantially further the full range of state interests in collecting and using information on the distinguishing features of individuals. Determining whether DNA identification systems fall into this categorical exception depends primarily on the safeguards that would curtail disclosure of data other than biological identity. With sufficient safeguards, states and the federal government should be able to resolve, according to their legislative visions of public policy, the questions of which offenses should be used for DNA collection and how long samples and profiles should be retained.

The categorical exception also would permit governments to step away from contact with police as the cornerstone of inclusion. As a matter of fairness and utility, what justifies "singling out still innocent defendants for DNA testing and sparing the rest of us"?[304] No one *forfeits* a right to keep one's DNA to oneself—not even by reason of a criminal conviction.[305] Rather, the state can override an offender's claim of a right not to release DNA because the governmental interests in detecting and deterring crime make the use of an offender's DNA reasonable when it is useful or used strictly for authentication- and association-identification. With innocent arrestees, however, the public gain is less, and the line between the arrested person and the rest of the innocent population is drawn in the faint ink of probable cause.[306]

Although a population-wide DNA database is not on the political horizon (and may never be), the vision of universality should play a role, even in today's arrest-based DNA-BC systems. *King* confirms that states have the constitutional power to take DNA upon or shortly after arrest, not only for authentication-identification but also for association-identification. In developing systems of DNA-BC, "[l]egislators and database

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[304] Lempert, *supra* note 256.

[305] Kaye, *A Fourth Amendment Theory*, *supra* note 123, at 1133.

[306] Furthermore, "the police do not arrest innocent people at random. Minorities appear particularly vulnerable. . . . [B]lacks who have not committed the crime leading to their arrest are at greater risk than similarly innocent whites of being linked to another crime through DNA profiling." Lempert, *supra* note 256. "Still the cure should be to arrest more white criminals and not to let other[s] who have committed crimes go free. Moreover, since much crime is intraracial those saved from future rapes or killings will often have the same heritage as those captured." *Id*.

administrators should do unto others as they would to themselves. They should not adopt or operate any DNA identification system unless they would be willing to include their own DNA in the system."[307]

This precept, applied with an appreciation of the nature of the actual threats to privacy, should advance law enforcement interests while still respecting valid privacy concerns. Fingerprints, photographs, and DNA profiles each sometimes can be used to determine where someone was at some point in the past, and all these biometric traits possess some inherited features.[308] Libertarians may instinctively resent and oppose the desire of governments to amass all the information they can, and policymakers of all persuasions should worry about the emergence of new surveillance and information systems. But singly or in combination, the three biometrics are not the equivalent of Bentham's panopticon—a building in which the locations and movements of everyone and everything are instantly and always visible—or of Orwell's *1984*—a world with two-way telescreens and hidden microphones in every home. In using biometrics for some forms of "identification," as defined in *King*, DNA (and other databases) of appropriate scope, cost, and efficacy can contribute to efforts to enforce criminal law without trampling legitimate interests in personal privacy.

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[307] Kaye, *supra* note 48, at 48.

[308] *See* Brief of Genetics, *supra* note 211, at 36; Kaye, *A Fourth Amendment Theory*, *supra* note 123, at 1135–36, 1141, 1152–53.