

2018

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Recommended Citation

Christian B. Sundquist *The Technologies of Race: Big Data, Privacy and the New Racial Bioethics*, 27 *Annals Health L.* 205 (2018).

Available at: <https://lawcommons.luc.edu/annals/vol27/iss2/7>

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The Technologies of Race: Big Data, Privacy and the New Racial Bioethics

Christian B. Sundquist †

INTRODUCTION

The truism that race is a social construct rests upon the recognition of our shared humanity.¹ Overtime, race developed into a tool to deny the humanity of millions of people, providing a moral rationalization for the unequal treatment of persons in a world increasingly committed to democratic equality.² Whether supporting chattel slavery, Jim Crow laws, social Darwinism, or applied racial eugenics, science has long played a role in validating the supposed “scientific” inferiority of persons falling outside of the (ironically) socially constructed definition of “whiteness.”³ In the post-war world, the devastating consequences of utilizing “science” to rationalize the unequal treatment of non-white races led to universal recognition that “race” was devoid of genetic meaning and, rather, was a phenomenon of social fabrication.⁴

The rapid expansion of the collection and use of genomic “big data” for forensic and health care purposes, however, threatens a disturbing return of nineteenth century “race science.”⁵ Within criminal forensics, the expansion

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1. See e.g., Michael Yudell et al., *Taking Race out of Human Genetics*, 351 SCI. 564, 565 (2016) (discussing race as a social construct).

2. See Ethan Bronner, *Inventing the Notion of Race; Some Scholars Say the Label Evolved Recently, as a Tool of the Vanquished as Well as the Victors*, N.Y. TIMES (Jan. 10, 1998) (arguing that race is not “inborn,” rather “a tool invited by white Europeans to justify their conquests”).

3. See Christian B. Sundquist, *The Meaning of Race in the DNA Era: Science, History and the Law*, 27 TEMPLE J. SCI. TECH. & ENVTL. L. 231, 246 (2008) (“The racial theories of Social Darwinism and eugenics were invoked to buttress arguments for the restricted immigration of persons of “inferior stock” to the United States.”) [hereinafter Sundquist, *Meaning of Race*].

4. See *id.* at 233 (explaining that “[t]he claims of modern genetics notwithstanding, race remains a biologically meaningless concept of human categorization. Race simply has no traceable genetic essence.”).

5. See e.g., Marshall H. Chin, *Using Patient Race, Ethnicity, and Language Data to Achieve Health Equity*, 30 J. GEN. INTERNAL MED. 703, 703–04 (2015) (discussing the problems and reasons for collecting race data); see also William Isaac & Andi Dixon, *Why big-data analysis of police activity is inherently biased*, THE CONVERSATION (May 9, 2017, 9:34 PM), <https://theconversation.com/why-big-data-analysis-of-police-activity-is->

of state and federal DNA databases, coupled with the Supreme Court of the United States' permissive views on when DNA samples may be collected for inclusion in government databases, creates both an ethical and legal dilemma while simultaneously threatening our accepted understanding of non-biological race. Two separate practices relating to the use of DNA samples for criminal forensics highlight this dilemma.⁶ First, the broadening of the rules allowing the collection of DNA samples has disproportionately impacted racial minorities.⁷ While African Americans represent only approximately 13% of the U.S. population, they represent approximately 40% of the federal government's offender DNA database.⁸ Second, state and federal courts commonly admit "racialized" DNA evidence.⁹ Prosecutors regularly present random-match genetic estimates such as "only 1 in 10 million *Hispanics* share the same DNA profile as that of the defendant."¹⁰

In the health care setting, the benign collection of race-based health information, coupled with expanded research into racial health disparities, oddly increased the risk that such disparities are considered grounded in biological differences *rather than* owing to social determinants and/or epigenetic factors.¹¹ While benign mandates such as the Office of Management and Budget's Directive 15 and the National Institutes of Health Guidelines concerning race-based health research certainly facilitated a greater understanding of racial health disparities,¹² it is arguable that

inherently-biased-72640 (discussing the racial bias problem with collecting big data in the context of predictive policing).

6. See *infra* note 7, 9.

7. See Rachel Cox, Note, *Unethical Intrusion: The Disproportionate Impact of Law Enforcement DNA Sampling on Minority Populations*, 52 AM. CRIM. L. REV. 155, 166 (2014) (positing that [t]he disproportionate DNA sampling of minority arrestees may have a negative effect on minorities through the unethical use of the genetic information contained within DNA samples").

8. United States Census Bureau, *Quick Facts United States*, CENSUS.GOV (Jul. 1, 2017), <https://www.census.gov/quickfacts/fact/table/US/PST045217>; see also Henry T. Greely et al., *Family Ties: The Use of DNA Offender Database to Catch Offenders' Kin*, 34 J.L. MED. & ETHICS 248, 258 (2006) (reiterating U.S. Census statistics).

9. Christian B. Sundquist, 25 *Science Fictions and Racial Fables: Navigating the Final Frontier of Genetic Interpretation*, HARV. BLACKLETTER L.J. 57, 75 (2009); see also Christian B. Sundquist, *Genetics, Race and Substantive Due Process*, 20 WASH. & LEE CIVIL RTS. & SOC. JUST. 341, 346 (2014) [hereinafter Sundquist, *Due Process*] ("And perhaps most disturbingly, modern genetic theories of race have obtained the official imprimatur of law, as state and federal courts throughout the United States routinely permit the admission of racial DNA probabilistic evidence."). "Racialized" DNA refers to the presentation of race-based DNA random match probability estimates at criminal trials.

10. See Sundquist, *Due Process*, *supra* note 9, at 346–47 (basing the probability on the frequency a DNA profile appears in a "racial" group).

11. OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, DIRECTIVE NO. 15, RACE AND ETHNIC STANDARDS FOR FEDERAL STATISTICS AND ADMINISTRATIVE REPORTING (1977).

12. *Id.*; see generally Nat'l Inst. Health, *Pol'y and Guidelines on The Inclusion of Women and Minorities as Subjects in Clinical Res.*, NIH.GOV (Nov. 28, 2017),

researchers have mistakenly interpreted by them as directives to treat races as biologically distinct populations.¹³ Taken together, these findings indicate that researchers simply lack adequate guidance on how to apply socially constructed “racial” categories to health studies premised on reaching allegedly biological scientific findings.¹⁴ In addition to these benign mandates, new advancements in pharmacogenomics and race-based gene-line editing have been racialized, creating a resurgence of previously discarded notions of racial genetics.¹⁵

These aforementioned developments in research trends threaten established bioethical and legal principles. From a bioethical perspective, these developments undermine important notions of personhood and shared humanity that undergirds the socio-democratic fabric of our society.¹⁶ Further, from a legal perspective, these practices run afoul of basic substantive due process and equal protection rights enshrined in our Constitution. This is further bolstered by the Supreme Court’s current jurisprudence; in 2013, the Court held in *Maryland v. King* upheld that the forcible collection of racially-categorized DNA samples for felon arrestees as constitutional.¹⁷ If these trends continue, it is possible that they could have a long-lasting impact on those racial groups invidiously discriminated against in this manner.

This Article addresses the bioethical, privacy and constitutional dimensions of the new “race science,” while proposing concrete policy solutions as to how to better utilize race-based biometric “big data” in the forensic and health care contexts.¹⁸ In particular, it examines the broad privacy concerns that arise from the expansion of DNA data-banking and genetic surveillance technologies, and argues that the use of certain genetic technologies undermines an individual’s constitutionally protected privacy interest in avoiding a biological race classification by the government.¹⁹

In addition, the Article places the Supreme Court’s recent decision in *Maryland v. King*, which upheld the forcible collection of racially-categorized DNA samples for felony arrestees as constitutional,²⁰ in the

https://grants.nih.gov/grants/funding/women_min/guidelines.htm.

13. Michael Omi, *Racial Identity and the State: The Dilemmas of Classification*, 15 L. & INEQUALITY 7, 21 (1997).

14. Jonathan Kahn, *Race-ing Patents/Patenting Race: An Emerging Political Geography of Intellectual Property in Biotechnology*, 92 IOWA L. REV. 353, 367 (2007) (discussing scientists’ difficulty in understanding “race”).

15. See e.g., *id.* at 364 (combining new interventions with existing social classifications).

16. *Id.* at 355.

17. *Maryland v. King*, 569 U.S. 435, 441 (2013).

18. Sundquist, *Due Process*, *supra* note 9, at 375.

19. *Id.* at 378.

20. *King*, 569 U.S. at 466.

broader context of the modern expansion of forensic genomic data collection by the government, and proposes that in light of current state and federal trends to expand genetic surveillance efforts, the Supreme Court misconstrued the Fourth Amendment privacy analysis as it relates to the collection of race-based DNA samples.²¹ The Court in *King* erred in its mischaracterization of both the stated government interest in identification and the privacy interest in individual DNA samples by obfuscating the fact that collected DNA data are used to generate unreliable racial identifications of persons.²² This Article argues that individuals have a heightened privacy interest in avoiding classification by “biological race” by the government, and that the government has no legitimate Fourth Amendment interest in classifying suspects by supposed biological race.²³ For this reason, this Article posits that the continued forcible collection of DNA samples under state and federal law violates the Fourth Amendment, to the extent the state actor categorizes samples by race.²⁴

Part I of this Article provides a historical context by examining the sociological and scientific nature of “race.”²⁵ This Part will begin with an overview of how science first recognized the concept of “race” as a “natural” and “biological” phenomenon.²⁶ It then proceeds to examine the ways in which a genetic understanding of race has historically led to horrific consequences for persons deemed “non-white,” as various state actors utilized the supposed biological difference to rationalize instances of systemic racism, such as chattel slavery, immigration restrictions, Jim Crow laws, eugenics movements, the Holocaust, and other inhumane measures in the alleged name of science.²⁷ Part I argues that race can be more properly understood in today’s modern world as a form of technological control due to this history.²⁸ It also examines the widespread scientific and sociological rejection of biological race theory following World War II, while briefly discussing social constructionist models of race and ethnic difference.

Part II of this Article examines the resurrection of the biological race

21. *Id.* at 441.

22. *Id.* at 450.

23. *Id.* at 460.

24. *Id.* at 464.

25. See generally Sundquist, *Due Process*, *supra* note 9, at 347; Sundquist, *Meaning of Race*, *supra* note 3, at 264 (discussing the historical context of “race”).

26. Sundquist, *Due Process*, *supra* note 9, at 347.

27. *Id.* at 341–403.

28. This section expands upon Foucault’s philosophical concept of “technology as power”, to assert that race is an “instrument” applied to scientific knowledge in order to produce social outcomes or racial goods. See Paul Rabinow & Nikolas Rose, *Biopower Today*, 1 *BIOsocieties* 195, 196–97 (2006) (discussing Foucault’s philosophy); see generally FALGUNI A. SHETH, *TOWARD A POLITICAL PHILOSOPHY OF RACE* (Robert Bernasconi & T. Denean Sharpley-Whiting eds., 2009).

concept in modern scientific and legal discourse. Under the name of advancements in health and science facilitated by the significant expansion of DNA data-banking, the combination of the desire to extend patent protections and develop new markets for pharmaceuticals, the advent of consumer-targeted DNA testing, and benign government directives to consider “race” in health research, has effectively caused the public to revert to an understanding that racial taxonomies have genetic meaning.²⁹ This Part will explore these new technologies of race, while probing the modern resurgence of biological race theory from psychological, historical, and social perspectives. In particular, this Part will reconcile the rise of contemporary white nationalism with the rise of post-racialism and post-oppression mentalities, by suggesting that in the current climate race-based disparities can only be rationalized as reflecting normal group differences. Thus, in a world that has purportedly moved beyond structural oppression, modern understandings of biological racial differences can assist in naturalizing existing inequality. Accordingly, the rise of white nationalism, “Trumpism” and the “alt-Right” acts as post-race activism, attempting to normalize social inequality as unalterable human difference. In turn, this Part dismantles both white nationalist and post-race theory, while contending that modern understandings of biological race distinctions rest upon faulty scientific assumptions, using race-based DNA profiling as a failed genetic explanation of racial difference.

Next, Part III of this Article examines how the “new race science” has become integral to the expansion of genetic surveillance technologies and DNA bio-banking. This Part will expand upon the “race as technology” concept, while charting the role that modern genetic surveillance technologies play in establishing racial markers and boundaries in society. “Racializing surveillance” creates norms that define “what is in or out of place,” and influences the collection and interpretation of data.³⁰ The interpretations of such data inevitably shape our understandings of race and identity, by using seemingly benign algorithms and data categories that rely on coding assumptions about “race.” Further, this Part will also explore the concept of “digital epidermalization,” as pioneered by Frantz Fanon and modernized by Simone Browne.³¹ The rendering of racialized bodies into “digitized code” serves to normalize racial boundaries, and thus inequality,

29. Omi, *supra* note 13, at 21 (discussing race and science); Kahn, *supra* note 14, at 361–62.

30. See SIMONE BROWNE, DARK MATTERS: ON THE SURVEILLANCE OF BLACKNESS (2015) [hereinafter BROWNE, DARK MATTERS] (exploring “blackness, as metaphor and as lived materiality, and applies it to an understanding of surveillance”).

31. See generally Simone Browne, *Digital Epidermalization: Race, Identity and Biometrics*, 36 CRITICAL SOCIOLOGY 131 (2009) [hereinafter, Browne, *Digital Epidermalization*] (identifying races through the use of biometric technologies).

in ways that seem neutral and natural.³² As the algorithmic production of knowledge about race increases, it can be seen as more true and natural than non “big data” forms of knowledge.³³ However, this assumes that racial categories are well defined and accepted taxonomies of human difference, such that machines can be coded to make racial distinctions, ultimately normalizing racial difference and thus inequality.³⁴ This Part will apply the above framework to the Supreme Court’s decision in *Maryland v. King*, which upheld as constitutional under the Fourth Amendment the forcible collection of DNA samples from persons merely arrested *upon suspicion* of committing a serious crime.³⁵ This Article critiques the outcome in *King* as failing to recognize the individual privacy interest in avoiding biological race classifications in its Fourth Amendment analysis. And in so doing, Part III will develop the concept of “racial privacy” in the Fourth Amendment context, while linking the doctrinal analysis to the broader bioethical concerns underlying racialized genetic surveillance.

The final Part of this Article presents a theory of shared humanity. The theory of shared humanity provides that governmental acts that undermine a social conception of equal personhood are unconstitutional under the substantive due process doctrine, as informed by the Ninth Amendment. Part IV will also touch upon additional constitutional arguments that could be made in the racial DNA context. In particular, it will address concerns tied to equal protection rights of criminal defendants under the Fourteenth Amendment. The Article seeks to contribute to a “critical genomic consciousness”³⁶ by showing how ownership and access to one’s own body data is a fundamental right; further, it examines how concepts of personhood have been attacked by the creation of boundaries using technologies of race and rationalized by science, and how these boundaries have been used to erase who constitutes a rational and moral being deserving of full membership and rights in community.

I. THE (SOCIAL) SCIENCE OF RACE

The overwhelming weight of social and physical scientific evidence demonstrates that the concept of “race” has no biological meaning, but rather

32. *Id.* at 134.

33. Information that is reduced into digital code or scientific elements (such as geneticized racial taxonomies) arguably has the potential to be perceived as more accurate than non-scientific information (such as social conceptions of race), given the assumed validity of the underlying scientific methodology. *See generally id.*; JOHN CHENEY-LIPPOLD, *WE ARE DATA* 57 (2017).

34. *See, e.g.*, Chin, *supra* note 5, at 703 (discussing the difficulty in defining and identifying racial categories with patients).

35. *King*, 569 U.S. at 465–66.

36. Browne, *Digital Epidermalization*, *supra* note 31, at 132.

was historically developed as a political tool of social control. Hitherto, the law has accepted the universal conclusion that race “does not exist in the body but rather is the product of a socially-produced understanding,”³⁷ noting that racial taxonomies were developed over time to rationalize unequal treatment according to supposed innate biological difference.³⁸ While “race” in the post-World War II world has traditionally been understood as a matter of ancestry, appearance, performance or even self-identification, the scholars now recognize that the constructivist definition of race is dependent on prevailing social norms and shifting group power dynamics.³⁹ The very fact that the idea of racial difference is subject to an expansive array of conflicting global understandings underscores the social nature of what we call “race.”⁴⁰

Owing to its constructivist history, race can be understood as a form of technology—i.e., an instrument or tool—to apply a body of scientific knowledge in order to produce particular social outcomes—i.e., racial “goods.”⁴¹ An understanding of “race” as technology is undoubtedly influenced by Michel Foucault’s concepts of biopower and biopolitics; race can be thought of as a defining feature of an established biopolitical state focused on preserving political control through the classification and interpretation of the human body.⁴² In the following sub-sections, this Part will trace past manifestations of racial technologies—such as early Enlightenment articulations of racial difference, Nineteenth Century biological “race science,” social Darwinism, and culture of poverty theories—to highlight the current danger of lapsing back into a biological understanding of race.

37. Angela Harris, *From Color Line to Color Chart?: Racism and Colorism in the New Century*, 10 BERKELEY J. AFR.-AM. L. & POL’Y 52, 68 (2008).

38. See Howard Winant, *Race and Race Theory*, 26 ANN. REV. SOC. 169, 172 (2000) (finding that race is “a concept that signifies and symbolizes sociopolitical conflicts and interests in reference to different types of human bodies.”); see also *U.S. v. Parada*, 289 F. Supp. 2d 1291, 1305–06 (Kan. 2003) (discussing racial profiling and selective enforcement by law enforcement officers); see generally *Perkins v. Lake County Dept. of Utils.*, 860 F. Supp. 1262 (N.D. Ohio 1994).

39. See e.g., Winant, *supra* note 38, at 172 (explaining the evolution of the concept of race as the “world political economy” developed and expanded).

40. See Lorena Madrigal & Guido Barbujani, *Partitioning of Genetic Variation in Human Populations and the Concept of Race*, in ANTHROPOLOGICAL GENETICS: THEORY, METHODS, & APPLICATIONS 19, 28–30 (Michael Crawford ed., 2007) (positing that classifying individuals by racial group is scientifically arbitrary, and almost useless from the practical standpoint).

41. See generally Bruce Sinclair, *Integrating the Histories of Race and Technology*, in TECHNOLOGY AND THE AFRICAN-AMERICAN EXPERIENCE 1, 3 (Bruce Sinclair ed., 2004), https://mitpress.mit.edu/sites/default/files/titles/content/9780262693448_sch_0001.pdf (elaborating on the complex history between technology and race).

42. Rabinow & Rose, *supra* note 28, at 196–97 (providing explanations of Foucault’s notions of “biopower” and “biopolitics”).

A. Pre-Race Understandings of Group Difference

Prior to the invention of the “race” concept to interpret, classify, and assign mental, physical and social value to humanity, perceived differences between human populations were often demarcated on religious and geographical grounds.⁴³ The expansion of European colonialism following the Middle Ages, as well as resultant imperialist political theory, established the necessary conditions for early notions of biological difference rooted in race.⁴⁴ The emergence of universalism and democratic equality conflicted with social domination of “other” population groups through the exercise of colonial and imperial power.⁴⁵ Initial attempts to reconcile the divide between universal equality and colonial power sounded not only in religious difference, but also in differences between European and non-European states of civilization.⁴⁶ Consequently, the assertion of social control over dominated lands, and the subsequent establishment of imperial colonies, was defended as necessary in order to provide otherwise “un-civilized” and perhaps even “savage” populations with the tools to become liberal, self-governing nation-states.⁴⁷

Longstanding notions of messianic duty and religious difference influenced the demarcation of certain non-European societies as uncivilized and thus necessary of political tutelage.⁴⁸ Relying in part on the Aristotelian

43. See Michael Yudell, *A Short History of the Race Concept*, in RACE AND THE GENETIC REVOLUTION: SCIENCE, MYTH, AND CULTURE 1, 2 (Sheldon Krimsky & Kathleen Sloan eds., 2011) (explaining that the idea of race “gained strength towards the end of the Middle Ages as anti-Jewish feelings, which were rooted in an antagonism towards Jewish religious beliefs, began to evolve into anti-Semitism.”).

44. See *id.* (“Beginning in the eighteenth century, at the height of the Age of Enlightenment in Europe, these ideas were applied to explaining the diversity of humankind, driven in part by the experiences with new peoples during colonial exploration, the need to rationalize the inferiority of certain peoples as slavery took hold in European colonies, and the development of a new science to assess and explain diversity in *all* species.”).

45. A.P. Thornton, *Colonialism*, 17 INT’L J. 335, 352–57 (1962).

46. See e.g., Sundquist, *Due Process*, *supra* note 9, at 348–49 (resolving the distinction between universalism and Christian particularism).

47. See Susan K. Serrano, *Collective Memory and the Persistence of Injustice: From Hawaii’s Plantations to Congress – Puerto Ricans’ Claims to Membership in the Polity*, 20 S. CAL. REV. & SOCIAL JUSTICE 353, 368–69 (2011) (explaining “[b]ecause the colonizer portrays itself as civilized and law-abiding, it needs a mechanism for justifying its people and the world its bald political takeover of another country and its people”); see also Rahman Ford, *Law, History, and the Colonial Discourse: Davies v. Commissioner and Zimbabwe as a Colonialist Case Study*, HOW. L.J. 213, 225 (2001) (explaining that “the colonizer’s ‘heroic superiority,’ pride, neurotic impatience, the desire to dominate and a belief in the supremacy of the imperialist country’s values . . . [helped] the colonizer to rationalize imperialism as being beneficial not only for himself, but also for the native people, who were generally seen as unstable, emotional, impulsive, incompetent, barbaric, animistic, and immoral”) (citing Graham C. Kinloch, RACIAL CONFLICT IN RHODESIA: A SOCIO-HISTORICAL STUDY 10 (Univ. Press of America, Inc. 1978)).

48. See Benedikt Stuchtey, *Colonialism and Imperialism, 1450–1959*, EUROPEAN

concept of the “Great Chain of Being,” Christian populations—i.e., established European societies—were regarded as representing the highest stage of human existence whereas non-Christian populations—i.e., non-European societies—were seen as existing at a lower stage of humanity.⁴⁹ Thus, European societies argued that the colonial and imperialist project was a necessary “civilizing process” for non-Christian populations, owing to their “sub-human” state of nature.⁵⁰

Resultantly, under the widespread view at the time, the burgeoning European commitment to philosophical ideas such as “universalism” and “equality” was not implicated by the socio-political inequality inherent in colonialism.⁵¹ As I summarized previously, the “pre-modern linkage of [socio-political] and religious difference was [thought to be] necessary to legitimate the class exploitation and conquest that marked the period of European imperialism.”⁵² Consequently, the emergence of universalist and equality schools of political thought during the period of European colonialism established the conditions necessary for early theories of “racial” difference to emerge in order to “resolve the contradiction between humanistic universalism and Christian particularism—by representing non-Christians as nonhuman” and thus rationally subject to colonial power.”⁵³

B. The Rise of the Scientific Method and the Emergence of the Race Concept

During the Enlightenment period, the rise of the scientific method and empiricism contributed significantly to the formation and solidification of early concepts of racial difference.⁵⁴ Colonial era tools of religious and socio-political difference, which sought to reconcile principles of human universalism (and equality) with colonial-driven socio-political inequality,

HISTORY ONLINE, <http://ieg-ego.eu/en/threads/backgrounds/colonialism-and-imperialism/benedikt-stuchtey-colonialism-and-imperialism-1450-1950> (discussing the “messianic claim to leadership”).

49. See D. Marvin Jones, *Darkness Made Visible: Law, Metaphor, and the Racial Self*, 82 GEO. L.J. 437, 482 (1993) (noting that the Great Chain of Being “transformed from an image of polarities within the soul to an image of supposed racial polarities in the social world: it transformed from a religious metaphor into a metaphor for the hierarchy of race”).

50. See Serrano, *supra* note 47, at 368–69 (separating out the less worthy and less human races); see also Ford, *supra* note 47, at 225.

51. Sundquist, *Due Process*, *supra* note 9, at 349.

52. *Id.*

53. See generally JOE R. FEAGIN & CLAIRECE BOOHER FEAGIN, RACIAL AND ETHNIC RELATIONS (Nancy Roberts et al., eds., 1996) (exploring the development of racial relations basic concepts and then by race).

54. See Sundquist, *Due Process*, *supra* note 9, at 350 (“The modern scientific method that emerged during the period of the Enlightenment by itself, certainly, is not stained with irrationality of race. Rather, the modern scientific beliefs in empiricism and reason were subjectively applied in an effort to rationalize human inequality in terms of purported “racial” difference.”).

took on new forms and meaning in the “Age of Empiricism.”⁵⁵ The “scientific” examination of human differences during this era required non-scientific factors such as religious belief and geography to become new words and language to differentiate human populations:

Empiricism encouraged the tabulation of perceivable differences between peoples and from this it deduced their natural differences. Rationalism proposed initial innate distinctions (especially mental ones) to explain the perceived behavioral disparities. . . . The emergence of independent scientific domains of anthropology and biology defined a classificatory order of [human] groupings – subspecies of *Homo sapiens* – along correlated physical and cultural matrixes.⁵⁶

The purportedly scientific concept of “race” was correspondingly born in this political milieu.⁵⁷ On their own, the principles of rationality, the empirical method, and reason that developed during the Enlightenment are certainly not sufficient to explain the emergence of the “race” concept.⁵⁸ However, these nascent scientific principles were eventually utilized to create human taxonomies, which employed “race” as the term to describe the supposed different sub-species of humankind.⁵⁹ Such early scientific theories of race, unsurprisingly, replicated pre-existing colonial notions of (sub)human inferiority in order to rationalize social inequality under the guise of scientific objectivity.⁶⁰

The earliest Enlightenment theories of racial difference attempted to provide “scientific” weight to findings of European superiority and non-European biological degradation along mental, physical and moral lines.⁶¹ Such biological degradation can be found in table 1 below. As previously mentioned, these classifications seemingly rely on colonial notions of inferiority and Enlightenment notions of groupings or Human sub-species.⁶²

Europeus	Skin (white); build (muscular); hair (long, flowing); eyes (blue); disposition (gentle and inventive)
Americanus	Skin (reddish); build (erect); hair (black, straight, thick); distinct facial features (wide nostrils); disposition (stubborn and angered easily)

55. Sundquist, *Meaning of Race*, *supra* note 3, at 237.

56. DAVID THEO GOLDBERG, *RACIST CULTURE: PHILOSOPHY AND THE POLITICS OF MEANING* 28–29 (1993).

57. *Id.* at 29.

58. Sundquist, *Meaning of Race*, *supra* note 33, at 237–38 (discussing race in the context of the Enlightenment).

59. *Id.* at 237.

60. *Id.* at 237–38.

61. *Id.*

62. *See id.* at 234–35 (citing CAROLUS LINNAEUS, *SYSTEMA NATURAE* 20–23 (2d ed. 1758)); WILLIAM H. TUCKER, *THE SCIENCE AND POLITICS OF RACIAL RESEARCH* 9 (1994).

Asiaticus	Skin (sallow; yellow); hair (black); eyes (dark); disposition (avaricious and easily distracted)
Africanus	Skin (black); hair (black; frizzled); skin texture (silky); distinct facial features (nose flat, lips tumid); disposition (relaxed and negligent)

Table 1.

Other early scientific theories of race drew lines of human difference (now called “races”) imbued with intellectual, political, and moral meaning. For example, the eighteenth century philosopher Immanuel Kant developed a racial taxonomy similar to above, dividing human populations into “the noble blond (northern Europe); copper red (America); black (Senegambia); and olive-yellow (Asian-Indians).”⁶³ Kant, among other philosophers and racial scientists during this time, viewed “races” as immutable and biologically based.⁶⁴ However, Kant articulated these racial distinctions as part of a larger project to rationalize the unequal social and political treatment of persons deemed non-white, as well as the failings of European colonialism.⁶⁵ In particular, Kant stated:

(Whites:) contain all-natural motive springs in affects and passions, all talents, all passions, all talents, all predispositions to culture and civilization and can obey as well as rule. They are the only ones who constantly progress toward perfection . . . Blacks can become disciplined and cultivated but never truly civilized . . . All races will become exterminated/uprooted [*ausgerottet*] (Americans and Blacks cannot govern themselves. They thus serve only as slaves) only not the Whites. The stubbornness of Indians in their usages is the reason why they do not melt down with the Whites into a single people. It is not good that they intermix. Spanish in Mexico. On the race of the Whites, who have brought about all revolutions in the world. Nomads have only brought about violent revolutions, not ones that sustain themselves . . . Our (ancient) history of man reliably proceeds only from the white race.⁶⁶

63. John H. Zammito, *Policing Polygeneticism in Germany, 1775: (Kames) Kant, and Blumenbach*, in *THE GERMAN INVENTION OF RACE* 35, 42 (Sara Eigen & Mark Larrimore eds., 1996). Sundquist, *Meaning of Race*, *supra* note 3, at 235; Sundquist, *Due Process*, *supra* note 9, at 351–52.

64. See Sundquist, *Meaning of Race*, *supra* note 3, at 235 (“Each racial group had traits that were unalterably sustained by succeeding generations even under change of ecological setting for protracted periods of time.”); see also Pauline Kleingeld, *Kant’s Second Thoughts on Race*, 57 *THE PHIL. Q.* 573, 573–74 (2007) (summarizing Kant’s thoughts on non-white races, concluding with his “unstated assumption, made explicit elsewhere, is that ‘whites’ occupy the highest level of this hierarchy”).

65. Sundquist, *Due Process*, *supra* note 9, at 352.

66. Susan M. Shell, *Kant’s Conception of a Human Race*, in *THE GERMAN INVENTION OF RACE* 55–56 (Sara Eigen & Mark Larrimore eds., 1996).

As these examples illustrate, the development of the “race” concept first and foremost served to interpret social and political inequality as natural reflections of the biological world by using “science” as its (un)witting partner.⁶⁷ Indeed, early theorists believed a person’s entitlement to democratic equality was dependent on their racial categorization.⁶⁸ For Kant and other theorists, “full personhood”—which was interpreted to mean complete and equal membership in the socio-political community—was only achievable for those persons capable of reason and will.⁶⁹ Correspondingly, persons lacking in such reason and/or will on account of their race were not entitled to equality rights, or even individual freedom.⁷⁰ Under this viewpoint, only white (European) persons were regarded as possessing full personhood and thus entitled to complete equality of rights, whereas non-white (non-European) persons were regarded as “non-moral” sub-human “animals whom [the moral person] can master and rule at will.”⁷¹

As such, early scientific theories of race developed as part of a broader political effort to legitimize class and social inequality in the new era.⁷² Notions of immutable biological difference rooted in “race” were necessary in order to reconcile the progressive belief in universal equality and natural rights with continuing social and class disparities in an early capitalist modern world.⁷³ That many of these early conceptualizations of “race” mirror certain contemporary racial classification schemes in the United States does not confirm their naturalness or scientific validity. As discussed in more detail in Part Two of this Article, the perseverance of antiquated and scientifically baseless taxonomies of humankind instead speaks to the

67. See Sundquist, *Meaning of Race*, *supra* note 3, at 237 (discussing how “early theories of race and racial merit . . . soon became the basis for acceptable science during the Enlightenment period.”).

68. See Sundquist, *Due Process*, *supra* note 9, at 352 (discussing how Enlightenment theorists equated “full personhood” and membership in the community).

69. See FREDERICK P. VAN DE PITTE, *KANT AS A PHILOSOPHICAL ANTHROPOLOGIST* 49–57 (Martinus Nijhoff ed., 1971); see also Sundquist, *Due Process*, *supra* note 9, at 352 (discussing the “full personhood” theory).

70. Sundquist, *Due Process*, *supra* note 9, at 352.

71. IMMANUEL KANT, *ANTHROPOLOGY FROM A PRAGMATIC POINT OF VIEW* 9 (Hans H. Rudnick eds., Victor Lyle Dowdell trans., Southern Illinois University Press 1978).

72. See COUNT ARTHUR DE GOBINEAU, *ESSAYS ON THE INEQUALITY OF RACES* 120 (1915). With respect to the intersection of race and class, Gobineau states, “[i]t has already been established that every social order is founded upon three original classes, each of which represents a racial variety; the nobility, a more or less accurate reflection of the conquering race; the bourgeoisie composed of mixed stock coming close to the chief race; and the common people who live in servitude or at least in a very depressed position. These last belong to a lower race which came about in the south through miscegenation with the negroes and in the north with Finns.” *Id.*

73. See, e.g., ADAM SMITH, *AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS* 480 (Oxford Press, 1789) (discussing the need for limits and exceptions on “universal equality” to protect the *natural* property rights of the wealthy class).

remarkable perseverance of racism itself.

C. Nineteenth Century “Race Science”: On Chattel Slavery, Social Darwinism and Eugenics

The emergence of pseudo-scientific distinctions of humankind based on the artifice of “race” continued to significantly influence social engineering in nation-states around the world, including the United States. Similar to how “race” was formed and utilized in the colonial context, the concept of race as a biological difference proved to be critical to limiting or preventing true democratic equality and universalism.⁷⁴ The evolution of temporary indentured servitude to permanent chattel slavery in the United States rendered prior justifications for unequal treatment inadequate.⁷⁵ Religious difference had previously been invoked to justify not only indentured servitude of certain groups of non-European workers, but also to rationalize the denial of equality rights to African workers in early, pre-chattel forms of slavery.⁷⁶ However, the distinction between Christians (fully deserving of full personhood and thus equality rights) and non-Christians (viewed as less than human and incapable of exercising full equality rights) was no longer sufficient to justify enslavement as increasing numbers of former “slaves” converted to Christianity.⁷⁷

The traditional rationale for indentured servitude focused on the temporary nature of such servitude and shared economic necessity of both the worker and the country served.⁷⁸ However, this rationalization was also no longer adequate to reconcile the United States’ philosophical and eventual constitutional commitment to equality with emergence of chattel-style slavery.⁷⁹ Nonetheless, unequal treatment under the law (that is, the enslavement, murder, rape of persons deemed non-white and “African” or “Black” in perpetuity), *could* be legitimated on grounds of immutable biological racial difference.⁸⁰ Whereas prior tools of normalizing social inequality fell short to respond to modern forms of oppression, biological

74. See Sundquist, *Due Process*, *supra* note 9, at 355 (improving society through legal and social oppression of “inferior races”).

75. See *id.* at 354 (“The rationalization of chattel slavery under the guise of religious difference, however, became unsustainable as the country’s reliance on the “peculiar institution” increased.”).

76. *Id.*; Sundquist, *Meaning of Race*, *supra* note 3, at 239.

77. Sundquist, *Meaning of Race*, *supra* note 3, at 239–40; Sundquist, *Due Process*, *supra* note 9, at 354.

78. Sundquist, *Meaning of Race*, *supra* note 3, at 239–40; Sundquist, *Due Process*, *supra* note 9, at 354.

79. Sundquist, *Meaning of Race*, *supra* note 3, at 239–40; Sundquist, *Due Process*, *supra* note 9, at 354.

80. Sundquist, *Meaning of Race*, *supra* note 3, at 240; Sundquist, *Due Process*, *supra* note 9, at 355.

race theory filled the void by purporting to provide objective, “scientific” validation on non-white inferiority—and thus scientific legitimization of slavery itself.⁸¹ There simply could be no tension between the country’s professed commitment to equality and the practice of enslavement if those enslaved were not deemed “persons” capable of moral agency in the first place.⁸² Indeed, chattel slavery was soon viewed by the law as an “expression of the harmony between natural law and social organization” in light of pseudo-scientific findings of natural biological difference.⁸³

The burgeoning field of “race science,” with its manifestations in anthropometrics, phrenology, eugenics, intelligence assessment, craniology, and physical anthropology, strived to legitimate not only chattel slavery, but also other less pernicious forms of race-based discrimination and inequality.⁸⁴ Following the end of slavery, various forms of *de jure* and *de facto* racial discrimination continued unabated.⁸⁵ Forms of *de jure* racial control such as Jim Crow state laws, “Black Codes,” racially segregated zones of education, labor and military, flourished in the post-chattel slavery United States,⁸⁶ while the majority of the South continued *de facto* slavery-like conditions of labor.⁸⁷ In addition, certain areas briefly refused to recognize the Emancipation Proclamation and continued chattel slavery.⁸⁸

The rise of Social Darwinism during the nineteenth century also played a

81. Sundquist, *Meaning of Race*, *supra* note 3, at 240; Sundquist, *Due Process*, *supra* note 9, at 355.

82. Sundquist, *Meaning of Race*, *supra* note 3, at 240; Sundquist, *Due Process*, *supra* note 9, at 355.

83. Joel Sipress, *Relearning Race: Teaching Race as a Social Construction*, 30 THE HIST. TCHR 175, 175–82 (1997); *cf.* Sundquist, *Meaning of Race*, *supra* note 3, at 240 (“As the economic and religious rationales for slavery and the unequal treatment of Africans proved to be inadequate, race theory began focusing once again on the “natural” inferiority of Africans to justify inequality.”); Sundquist, *Due Process*, *supra* note 9, at 355 (“Once the economic and religious difference justifications for slavery proved lacking, biological race theory filled the void in mitigating the tension between the democratic principle of social equality and the expansion of chattel slavery. Science was relied upon to provide “objective” and “empirical” validation of the biological inferiority of non-white persons in order to classify slaves as less than human, and thus not entitled to social equality. Race was viewed as an immutable biological fact, and slavery as “an expression of the harmony between natural law and social organization,” as a means to respond to the equality dilemma.”).

84. Sundquist, *Due Process*, *supra* note 9, at 357.

85. *Id.* at 356–57.

86. *Id.* at 356.

87. See Newsweek Staff, *Book: American Slavery Continued Until 1941*, NEWSWEEK (July 13, 2008), <http://www.newsweek.com/book-american-slavery-continued-until-1941-93231> (providing examples as to how *de facto* slavery-like conditions continued in the South).

88. *Juneteenth ignorance: America’s Refusal to acknowledge Juneteenth*, OVAL PIKE (June 19, 2012), <https://ovalpike.com/juneteenth-ignorance-americas-refusal-to-acknowledge-juneteenth>.

remarkable role in normalizing the application of biological race science to social and legal policy.⁸⁹ Charles Darwin proffered his theory of evolutionary progress in the nineteenth century, but strongly warned against applying his theory to human “races,” noting that the classification of human groups into different sub-species was scientifically unsound.⁹⁰ Nevertheless, some conflated the notion of evolutionary progress with prior Aristotelian pre-modern theories of stages of human civilization (as embodied by the “Great Chain of Being,” discussed *supra*).⁹¹ The Social Darwinism movement sought to provide scientific validation to antiquated notions of human difference, while applying the core principles of evolutionary theory to study human progress.⁹² A core objective of Social Darwinists during this period was to develop legal and social methods by which evolutionary progress could be hastened; further, they also largely believed that deregulated market competition was key to promoting the “survival of the fittest.”⁹³ Under this worldview, it was believed that social programs that attempted to help the poor, disabled, unemployed, and low-wage workers delayed society’s overall evolutionary progress.⁹⁴ As such, Social Darwinists successfully lobbied for changes in state and federal law to eliminate government aid to the needy, to upend minimum wage legislation, and fought against free public education and even charitable giving.⁹⁵

Biological race theory was critical to the social Darwinist movement.⁹⁶ Social Darwinists improperly interpreted evolutionary theory to mean that human “races” could be assigned different stages on the human evolutionary ladder.⁹⁷ Social Darwinists thus contributed to biological race study by reaching “scientific” findings that the white race had achieved the highest

89. Sundquist, *Due Process*, *supra* note 9, at 357.

90. CHARLES DARWIN, *THE DESCENT OF MAN AND SELECTION IN RELATION TO SEX* 239–40 (London, Murray 1871). (citing Darwin’s conclusion that “[a]lthough the existing races of man differ in many respects as in color, hair, shape of skull, proportions of the body, etc. . . . yet if their whole structure be taken into consideration they are found to resemble each other closely in a multitude of points. Many of these are so unimportant or of so singular a nature that it is extremely improbable that they should have been independently acquired by aboriginally distinct species or races.”); *see also* Sundquist, *Due Process*, *supra* note 9, at 357–58 (discussing social Darwinism); Sundquist, *Meaning of Race*, *supra* at 3, at 243–44 (noting that the “concept of ‘survival of the fittest’ was soon extended to race theory”).

91. *See* Jones *supra* note 49, at 481–82 (discussing the Great Chain of Being and scientific efforts to distinguish African Americans as an inferior race); *see* Sundquist, *Meaning of Race*, *supra* note 3, at 242 (challenging biblical notions of a single creation and validating slavery and race theory with race inferiority);

92. Sundquist, *Meaning of Race*, *supra* at 3, at 243; Sundquist, *Due Process*, *supra* note 9, at 356–59.

93. TUCKER, *supra* note 62, at 27.

94. *Id.*

95. *Id.*

96. Sundquist, *Due Process*, *supra* note 9, at 356.

97. TUCKER, *supra* note 62.

level of evolution, while non-white races occupied lower stages of human evolution.⁹⁸ Similar to colonial distinctions between “civilized” and “non-civilized” populations, social Darwinists believed that the progress of human civilization depended on “the struggle of race with race and the survival of the physically and mentally fitter [white] race.”⁹⁹

From this perspective—now supported by scientific study—the primary way for law to advance human evolution was through the suppression and eventual “elimination of biologically inferior genes from the genetic pool.”¹⁰⁰ Law was seen as a method to encourage the transmission of superior genes while inhibiting the transmission of deficient genes.¹⁰¹ Indeed, the only way to resolve the “race problem” according to Social Darwinists was to eliminate biologically inferior non-white “races” from the gene pool.¹⁰²

Ergo, during this period race science evolved from early racial taxonomies, which were developed as a means to morally legitimate colonial conquest and chattel slavery, to Social Darwinist interpretations, which focused on the promotion of human evolutionary progress.¹⁰³ The science of genetic racial difference soon focused on developing principles of applied racial eugenics as a practical counterpoint to racial evolutionary theory.¹⁰⁴ Social policies were thereafter implemented with the goal of hastening race-based evolutionary progress, such as, *inter alia*, restrictive race-based immigration laws, anti-miscegenation laws, forced sterilization statutes, anti-welfare legislation, and Jim Crow laws.¹⁰⁵ European race scientists, of course, also continued to explore the manner in which findings of “racial difference” could be utilized to improve the “racial health” of their respective societies.¹⁰⁶ Claims were made across Europe during this time that governments “*must at any price keep the quality of the [white] race at a high level,*” and that failures to adopt programs of “racial hygiene” would result in

98. *Id.*; see also Sundquist, *Due Process*, *supra* note 9, at 357 (“The possibility of rationalizing unequal social treatment in terms of evolutionary inferiority, however, proved too alluring for scores of scientists. In particular, the social Darwinism movement sought to apply Darwin’s evolutionary theory to contemporary social problems in order to rationalize existing racial and class inequality.”).

99. TUCKER, *supra* note 62, at 29 (quoting KARL PEARSON, NATIONAL LIFE FROM THE STANDPOINT OF SCIENCE 21 (1905)).

100. Sundquist, *Due Process*, *supra* note 9, at 358.

101. See Sundquist, *Meaning of Race*, *supra* note 3, at 244 (explaining that the extermination of inferior races was an inevitable expression of natural law).

102. *Id.*

103. *Id.*

104. *Id.* at 245.

105. See *id.* at 246 (explaining Chinese restrictive race-based immigration laws); Sundquist, *Due Process*, *supra* note 9, at 359–60 (noting that “[t]he biased assumptions and disturbing policies of eugenicists were soon integrated into society by law.”); see also TUCKER, *supra* note 62, at 61.

106. Sundquist, *Due Process*, *supra* note 9, at 360.

the “dissolution and *extinction*” of European white society.¹⁰⁷

Germany, in particular, relied on biological race theory to blame its economic struggles following World War I on the biological racial degradation of its population.¹⁰⁸ While the pre-Nazi Weimar government proposed various programs of race hygiene during their tenure, the ascent of Nazism can be partly explained by their embrace of American-styled programs of racial eugenics.¹⁰⁹ That said, key leaders in the Nazi movement believed that the eugenics programs adopted in America (such as race-based immigration, sterilization and anti-miscegenation laws) were “only the first step[s]. . . to still more definite laws dealing with race and eugenics.”¹¹⁰ The world, as a result, paid witness to the many horrors of ascribing to a biological definition of “race” during the Nazi regime; compulsory sterilization and anti-miscegenation (i.e., Nuremberg) laws were passed, eventually leading to the implementation of eugenics programs directly aimed at eliminating “inferior” racial genes from the population.¹¹¹ The development of race-based euthanasia programs and death camps was seen as the coldly logically application of social Darwinist applied theory, resulting in the inhumane murder of millions of Jewish, Slavic, Roma and other persons deemed non-white.¹¹²

1. Modern Social Constructionism

The attempted genocide of an entire population racialized as “non-white” forced the world’s leading scientists to universally recognize that as a historic theory, “race” was a social construction divined in order to rationalize social inequality.¹¹³ In response to this realization and the horrors of World War II, the United Nations issued a critically important statement on “The Race

107. Herman Lundborg, *Race Biological Perspectives*, 9 SOC. FORCES 397, 400 (1931).

108. Sundquist, *Due Process*, *supra* note 9, at 360–61.

109. See *The Biological State: Nazi Racial Hygiene, 1933–1939*, U.S. HOLOCAUST MEMORIAL MUSEUM <https://www.ushmm.org/wlc/en/article.php?ModuleId=10007057> (last visited May 22, 2018); cf. Lundborg, *supra* note 107, at 400 (citing earlier international movements fostering race hygiene).

110. TUCKER, *supra* note 62, at 116 (quoting H.F.K. GUNTHER, *THE RACIAL ELEMENTS OF EUROPEAN HISTORY* 245 (Kennikat 1970) (1927)).

111. See *The Biological State: Nazi Racial Hygiene*, *supra* note 109 (providing an overview of Nazi Germany’s “applied biology” and extremist eugenics movement); *Introduction to the Holocaust*, U.S. HOLOCAUST MEMORIAL MUSEUM, <http://www.ushmm.org/wlc/article.php?lang=en&ModuleId=10005143> (last visited May 22, 2018) (depicting the horrors of the holocaust and the effects of the Nuremberg Laws).

112. *Introduction to the Holocaust*, *supra* note 112.

113. See Sundquist, *Due Process*, *supra* note 9, at 362–63 (“Such an account restores historical to our understanding of the race concept, as race is viewed as an ‘ideology of inequality devised to rationalize European attitudes and treatment of the conquered and enslaved peoples’ in order to perpetuate social inequality and existing structures of power.”).

Question,” which concluded that “race” was “not so much a biological phenomenon as a social myth.”¹¹⁴ Notwithstanding the resurgence of contemporary attempts to re-geneticize race, the universal scientific conclusion reaffirmed that race is a social construction completely devoid of genetic meaning.¹¹⁵

Not only has “race” been thoroughly debunked as a biological basis for human differentiation, the roots of the “race” idea have also been universally recognized as being tied to broader socio-historical processes of control and conquest.¹¹⁶ Race is now understood as a “concept that signifies and symbolizes sociopolitical conflicts and interests in reference to different types of human bodies”¹¹⁷ and as an “ideology of inequality devised to rationalize European attitudes and treatment of the conquered and enslaved

114. UNESCO, THE RACE QUESTION 8 (1950), <http://unesdoc.unesco.org/images/0012/001282/128291eo.pdf>.

115. See Winant, *supra* note 38, at 172 (“Although the concept of race appeals to biologically based human characteristics (phenotypes), selection of these particular human features for purposes of racial signification is always and necessarily a social and historical process. There is no biological basis for distinguishing human groups along the lines of race, and the sociohistorical categories employed to differentiate among these groups reveal themselves, upon serious examination, to be imprecise if not completely arbitrary.”). In addition to Winant, many scholars have noted that race is in fact a social construct. See, e.g., Angela Harris, *supra* note 38, at 68 (“[R]ace does not exist in the body but rather is the product of a socially-produced understanding.”); see, e.g., AM. ANTHROPOLOGIST ASS’N, AAA STATEMENT ON RACE, 100 AM. ANTHROPOLOGIST 712, 712 (1999) (“Today scholars in many fields argue that race as it is understood in the U.S.A. was a social mechanism invented during the 18th century to refer to those populations brought together in colonial America [. . .].”); see e.g., Anthony Paul Farley, *All Flesh Shall See It Together*, 19 CHICANO-LATINO L. REV. 163, 166 (1998) (“There is no such thing as ‘race’ save as a ‘social construction.’”); see e.g., David Brion Davis, *Constructing Race: A reflection*, 54 WM. & MARY Q. 7, 7 (1997) (“[H]istorians have increasingly recognized that so-called races of mankind are the fortuitous and arbitrary inventions of European and American history [. . .].”); see e.g., Sipress, *supra* note 83, at 175–76 ([H]istorians have to come to view racial identity as a social and cultural construction, rather than a biological fact.”); IAN HANEY LOPEZ, WHITE BY LAW 10TH ANNIVERSARY EDITION: THE LEGAL CONSTRUCTION OF RACE (2006) (“[T]he Supreme Court’s elevation of common knowledge as the legal meter of race convincingly demonstrates that racial categorization finds its origins in social practices.”); MICHAEL OMI & HOWARD WINANT, RACIAL FORMATION IN THE UNITED STATES: FROM THE 1960S TO THE 1990S 12–13 (2d ed. 1994) (treating race as a “fundamental axis of social organization in the U.S.,” rather than an epiphenomenon); Ashley Montagu, *The Concept of Race*, 64 AM. ANTHROPOLOGIST 919, 919 (1962) (denouncing the use of “race” in human context); D. Wallis, *Race and Culture*, 23 SCI. MONTHLY 313, 321 (1926) (“Since the accomplishments of the respective races fluctuate considerably through the centuries, we have no reason to believe that one race differs from another in innate psychic equipment”).

116. See Winant, *supra* note 38, at 172 (“The idea of race began to take shape with the rise of a world political economy. The onset of global economic integration, the dawn of seaborne empire, the conquest of the Americas, and the rise of the Atlantic slave trade were all key elements in the genealogy race.”).

117. HOWARD WINANT, THE NEW POLITICS OF RACE: GLOBALISM, DIFFERENCE, JUSTICE 235 (2004).

peoples.”¹¹⁸ Recognition of the social constructionist nature of race is essential to recognizing the full personhood of all people.

2. Post-Racial Distancing Moves: Highlighting a Return to Biological Race Science

The repudiation of biological race theory following World War II removed an important tool in mediating the tension between equality norms and the reality of social inequality. In the United States, the “American dilemma,” which divided equality and inequality and democracy and oppression, was historically legitimated through appeals to racial biological difference.¹¹⁹ The rejection of such an artifice to normalize inequality briefly left a void, during which time the United States was able to partially recognize the true roots of race-based disparities (e.g., structural racism and legacies of racial oppression).¹²⁰ Later, the Civil Rights Movement would identify and politicize the hypocrisy inherent in a country ostensibly committed to equality and yet facing massive inequality.¹²¹ This politicization resulted in limited, yet meaningful, positive social change including voting rights protections, anti-discrimination laws, affirmative measures to respond to bias and a legacy of racism, and desegregated labor and public education.¹²²

Though the Civil Rights Movement in the United States obtained some social change, it did not go far enough in combatting extensive histories of racial oppression and continuing discrimination.¹²³ Only mere months after the passage of the Civil Rights Act, the political consensus quickly shifted away from adopting race-regarding social legislation specifically aimed at structural racism to addressing white “exhaustion” with discussing race matters.¹²⁴ Popular support quickly coalesced around the concerns that that

118. AM. ANTHROPOLOGICAL ASS'N, *supra* note 115, at 712.

119. See Gunnar Myrdal, *Racial Beliefs in America in Theories of Race and Racism: A Reader* 87, 95 (Les Back & John Solomos eds., 2000) (arguing that “[b]iological inferiority dogma threatens to become the lone surviving ideological support of color caste in America” for “ordinary white people”).

120. See Sundquist, *Due Process*, *supra* note 9, at 344–45 (arguing that “social inequalities were finally acknowledged” and that “equal opportunity . . . had been employed to justify persistent racial disparities”).

121. *Id.* at 365 (“The Civil Rights Movement capitalized on the hypocrisy of America race relations, in part by framing its political message in terms of liberal equality and justice”).

122. *Id.*

123. *Id.* at 345–46 (“Yet these dated colorblind distancing strategies may no longer be sufficient to assuage the cognitive dissonance and moral shame stoked by acknowledging continuing inequality.”).

124. Cf. Memorandum from Daniel P. Moynihan to Pres. Nixon (Jan. 18, 1970) (on file with Richard Nixon Presidential Library and Museum) <https://www.nixonlibrary.gov/virtuallibrary/releases/jul10/53.pdf> (commenting on the progress of the Nixon administration with respect to the administration’s success in supporting the “American Negro”).

race “has been too much talked about” and that “the time may have come when the issue of race could benefit from a ‘period of benign neglect.’”¹²⁵ With this idea as inspiration, government policies advanced under the umbrella of Lyndon Baines Johnson’s “War on Poverty,”¹²⁶ which focused on “deemphasiz[ing] the issue of racism and discrimination” while pursuing race-neutral policies centered around liberal principles such as “equal opportunity” and “colorblind universalism.”¹²⁷ The United States’ rejection of benign race-regarding governmental policies in the name of equality and universalism echoes European liberalism’s practice of committing to equality rights subject to exceptions.¹²⁸

Despite these efforts, the discord between the United States’ professed commitment to universal equality and the persistence of inequality would continue unabated with new and rebranded rationalizations to normalize social inequality in the post-Civil Rights era. Historically, traditional theories of biological race differences were used to assuage the United States’ moral shame. In the void left by biological race theory, socio-legal perspectives centered around classic market theory, color-blind constitutionalism,¹²⁹ post-racialism,¹³⁰ and “culture of poverty” theory¹³¹ in attempting to reconcile the timeless conflict between universal equality and group-based inequality.¹³² Yet, these race-neutral “distancing moves”¹³³ have experienced widespread

125. *Id.*; Peter Kihss, ‘Benign Neglect’ on Race is Proposed by Moynihan, N.Y. TIMES (Mar. 1, 1970), <https://www.nytimes.com/1970/03/01/archives/benign-neglect-on-race-is-proposed-by-moynihan-moynihan-urges.html>.

126. *See generally* Robert Siegel, *Lyndon Johnson’s War on Poverty*, NPR (Jan. 8, 2014) (streamed from NPR website), <https://www.npr.org/templates/story/story.php?storyId=1589660> (introducing President Johnson’s “War on Poverty” focus of Johnson’s State of the Union speech such as reinvigorating health care, education, and labor).

127. TIM WISE, COLORBLIND: THE RISE OF POST-RACIAL POLITICS AND THE RETREAT FROM RACIAL EQUITY 27–28 (2010); *see also*, OFFICE OF POLICY PLANNING & RESEARCH, U.S. DEP’T OF LABOR, THE NEGRO FAMILY: THE CASE FOR NATIONAL ACTION 2 (1965) (describing the “administrative events” that took place based on equal opportunity).

128. *See* AM. ANTHROPOLOGICAL ASS’N, *supra* note 115, at 712 (“As they were constructing U.S. society, leaders among European-Americans fabricated the cultural/behavioral characteristics associated with each race, linking superior traits with Europeans and negative and inferior ones to blacks and Indians.”).

129. *See generally* Randall Kennedy, *Colorblind Constitutionalism*, 82 *FORDHAM L. REV.* 1, 2 (2013).

130. *See generally* Ian F. Haney-Lopez, *Is the Post in Post Racial the Blind in Colorblind*, 32 *CARDOZO L. REV.* 807, 807–08 (2011) (discussing what “post-racial America” means) [hereinafter Haney-Lopez, *Is the Post in Post Racial*].

131. *See generally* Oscar Lewis, *The Culture of Poverty*, 215 *AM. J.* 19, 19 (1966) (discussing the culture of poverty).

132. *See* Sumi Cho, *Post-Racialism*, 94 *IOWA L. REV.* 1589, 1594–95 (2009) (discussing the role of issues such as “race-neutral policies” and “playing the race-card” in reconciling racial inequalities post-racialism).

133. *Id.* at 1604.

criticism and thorough critiques for failing to meaningfully respond to race-based inequality, whilst obscuring the pervasiveness of structural racism and discrimination.¹³⁴ These distancing strategies tend to normalize the continued existence of racial inequality in a democracy committed to equality, either by discounting the reality of structural racism (e.g., post-racialism) or advancing solely race-neutral explanations for inequality (e.g., cultural poverty theories).¹³⁵

The continued normalization of inequality also contributed to the rise in modern racial genomics. When social and health inequalities between races persist despite the adoption of a post-racialist equality perspective, explanations for such disparities lapse into terms of biological race. As a formally equal society, any disparities must be attributed to genetic difference.¹³⁶ Dorothy Roberts, a professor at the University of Pennsylvania College of Law and a celebrated scholar in the areas of race, gender, and the law, attributes the curious rise of modern biological race theory in part to the persistence of inequality in a post-race world.¹³⁷ And while both the culture of poverty and market outcome theories posit a race-neutral explanation for inequality sounding in personal or cultural deficit,¹³⁸ these understandings nonetheless rely on unstated assumptions of underlying biological degeneration of certain non-white population groups.¹³⁹ In these ways, the

134. See generally *id.* at 1612 (“[I]ts complicity was doctrinally encoded in its self-serving legal rationales, distinctions, and foundational principles. In this sense formal discrimination’s elimination failed to address the synergy between law and society that helped accumulate and compound centuries of white power and privilege using neutral means. It did not address the subtle, yet well understood, racially coded call-and-response interplay between the courts and the public.”); Haney-Lopez, *Is the Post in Post Racial*, *supra* note 130, at 808 (arguing that “contemporary colorblindness” facilitates and protects mass incarceration); Neil Gotanda, *A Critique of “Our Constitution is Color-Blind,”* 44 STAN. L. REV. 1, 2–4 (1991) (“[L]egal ideology legitimates racial inequality and dominations.”); Thomas Ross, *The Rhetorical Tapestry of Race: White Innocence and Black Abstraction*, 32 WM. & MARY L. REV. 1, 1–2 (1990) (exploring the contribution of the legal system to “white innocence of contemporary whites” and “black abstraction”).

135. Sundquist, *Due Process*, *supra* note 9, at 373–75.

136. See *id.* at 377 (claiming that post-racialism rationalization resurrects “troubling . . . biological conceptions of racial difference”).

137. DOROTHY ROBERTS, *FATAL INVENTION: HOW SCIENCE, POLITICS, AND BIG BUSINESS RE-CREATE RACE IN THE TWENTY-FIRST CENTURY* 297 (2011) (“Biological distinctions, seemingly validated by genomic science and technology, appear to explain why stark racial disparities persist despite the abolition of official discrimination on the basis of race and despite most white American’s belief that racism has ceased to exist.”); see Dorothy E. Roberts, *U. of Penn. L. Sch.*, <https://www.law.upenn.edu/cf/faculty/roberts1/> (last visited May 22, 2018) (providing an overview of Professor Robert’s credentials and fields of study).

138. See Lewis, *supra* note 131, at 25 (“The concept of culture of poverty provides a generalization that may help to unify and explain a number of phenomena hitherto viewed as peculiar to certain racial, national or regional groups. Problems we think as being distinctively our own or distinctively Negro . . . prove to be endemic in countries where there are no segregated ethnic minority groups.”).

139. See Sundquist, *Due Process*, *supra* note 9, at 377 (“[T]he central justification of

evolution of race-neutral explanations for race-based disparities following the Civil Rights Movement set the stage for new ways of thinking about genetic racial difference.¹⁴⁰

II. THE NEW RACE SCIENCE

The seemingly repudiated notion of biological racial difference is slowly seeping back into contemporary social, legal, and scientific consciousness. While just a short time ago—as a matter of social norms, legal conventions, and scientific truth—it was unthinkable to believe in race-based biological difference, in the postmodern age such understandings are increasingly commonplace. Renewed assumptions for genetic racial difference can be traced to a certain degree to the broader history of cognitive rationalization where inequality is reconciled with ideas of equality.¹⁴¹ The expansion of data collection technology, coupled with the commodification of personal data, has also contributed to thinking of the self and one's racial identity as scientifically reducible to digitized information.¹⁴² From a psychological perspective, the rise of modern biological race science can be traced to the cognitive need to avoid the dissonance that arises when confronting privilege and the continued existence of race-based social inequality. Further, from a historical perspective this phenomenon can be interpreted as a modern manifestation of structural systems of social control. Finally, from a sociological perspective modern race science can be understood as developing partly in response to the rise of both white nationalism and post-race worldviews.

A. *The Resurgence of Biological Race Theory*

It is arguable that four distinct contexts have contributed to the resurgence of contemporary biological race theory.¹⁴³ These are namely, (a) research concerning race-based health disparities,¹⁴⁴ (b) attempts to patent and market race-based pharmaceuticals (e.g., racial pharmacogenomics),¹⁴⁵ (c) private

racial inequality for centuries has been biological difference.”).

140. See *id.* at 378 (“[M]odern day biological theories of racial difference provide colorblind and post-race adherents with a seemingly morally defensible way to mediate the cognitive dissonance that arises when confronted with the reality of racial inequality.”).

141. See generally Sundquist, *Due Process*, *supra* note 9, at 373–75 (author explains the “cognitive dissonance and psychology of moral absolution” to mask past racism).

142. See generally CHENEY-LIPPOLD, *supra* note 33, at 40–41 (2017) (“In our internetworked world, our datafied selves are tethered together, pattern analyzed, and assigned identities like ‘terrorist’ without attention to our own, historical particularities.”).

143. See *infra* notes 144–147 and accompanying text (listing the four contexts of contemporary biological race theory).

144. David R. Williams & Selina A. Mohammed, *Discrimination and Racial Disparities in Health: Evidence and Needed Research*, 32 J. BEHAV. MED. 20, 20 (2009).

145. Jonathon Kahn, *Race-ing Patents/Patenting Race: An Emerging Political*

DNA ancestry testing,¹⁴⁶ and (d) the forensic collection of racially categorized DNA samples.¹⁴⁷ As a result, society has become increasingly comfortable with modern linkages of race to genetic difference.¹⁴⁸ This is especially when law enforcement's tracing "racial ancestry" through DNA testing goes unquestioned, when the development of race-based drugs seems normal, and when admitting racial DNA forensic evidence against criminal defendants appears commonplace.¹⁴⁹

In the evidentiary context, courts now routinely admit race-based DNA evidence against criminal defendants.¹⁵⁰ The comparison of a DNA sample found at a crime scene and a DNA sample collected from a suspect has forensic utility, and state and federal courts hold such evidence to rest on reliable scientific methods.¹⁵¹ Notwithstanding the courts' general acceptance of the aforementioned DNA samples, finding a "match" between the DNA profile created for a crime scene sample and the DNA profile created for a defendant is *neither* conclusive evidence of a defendant's guilt *nor* proof that the defendant was the *only* possible source of the DNA found at the crime scene.¹⁵² As such, the prosecution must present expert testimony concerning the likelihood that a person *other* than the defendant could have shared the same DNA profile.¹⁵³ In what is called a Random Match Probability estimate ("RMP"), the expert may testify that there is only a "one in one million" chance that a person other than the defendant contributed the crime scene sample.¹⁵⁴ The expert in this scenario would form their

Geography of Intellectual Property in Biotechnology, 92 IOWA L. REV. 353, 362 (2007).

146. See generally *Have Questions? Get Answers to Some Common Questions*, ANCESTRY DNA, https://www.ancestrydna.com/kits/?s_kwid=ancestry+dna&gclid=CjwKCAiAz-7UBRBAEiwAVrz-9WXAt4VUGx8z9Fwq_xPWlsUeqB0-JGQk-T-g-bGGSEXHhX8JHzhYCB0cQ6cQAvD_BwE&rd=https%3a%2f%2fwww.ancestrydna.com%2fkits%2f%3f&o_xid=79107&o_lid=79107&o_sch=Paid+Search+Brand (last visited May 22, 2018).

147. See *Government of the Virgin Islands v. Penn*, 838 F. Supp. 1054, 1065 (V.I. 1993) (illustrating how a suspect's DNA profile is matched against his own racial population's DNA database).

148. *Penn*, 838 F. Supp. at 1065.

149. See *id.* (concluding that FBI's DNA profiling protocol ad results are admissible as evidence).

150. See SAMUEL R. GROSS ET. AL., NAT'L REGISTRY OF EXONERATIONS, RACE AND WRONGFUL CONVICTION IN THE UNITED STATES 12–14 (2017) (illustrating the routine use of DNA samples in rape cases).

151. See, e.g., *United States v. Shea*, 957 F. Supp. 331, 341 (N.D.N.H. 1997) (relying on "random match probability" to identify suspect); see also *State v. Bible*, 858 P.2d 1152, 1185–86 (Ariz. 1993) (relying on "random match probability").

152. Sundquist, *Meaning of Race*, *supra* note 3, at 260–62; Sundquist, *Due Process*, *supra* note 9, at 380–81 (citing NORAH RUDIN & KEITH INMAN, AN INTRODUCTION TO FORENSIC DNA ANALYSIS 139–40 (2d ed. 2002)).

153. Sundquist, *Due Process*, *supra* note 9, at 381.

154. *Id.*

probability estimate by comparing the frequency with which the defendant's DNA profile appears in a general population database.¹⁵⁵

A more contentious method of explaining the significance of a DNA match to a jury involves a comparison of the frequency with which the defendant's DNA profile appears in five racial "sub-populations": (1) Hispanic, (2) "United States" Caucasian, (3) East Asian, (4) Native-American, and (5) African American.¹⁵⁶ When utilizing this methodology, the expert would utilize a racial population file developed by the Federal Bureau of Investigation ("FBI") many years ago, which relies on the classic American racial taxonomy, to determine the frequency with which the defendant's DNA profile appears in certain racial groups.¹⁵⁷ By way of illustration, it is now commonplace for courts to allow expert testimony to the effect that there is "only a one in forty million" chance that another "African American" or "Hispanic" shares the same DNA profile as that of the defendant.¹⁵⁸

B. The Scientific Invalidity of Biological Race

While the field of population genetics generally accepts the theory of genetic diversity based on geography,¹⁵⁹ the subject suffers from significant criticism due to its mistaken assumption that American "racial categories" could serve as genetically homogenous "populations." The post-World War II finding by UNESCO that race was "not so much a biological phenomenon as a social myth" has been overwhelmingly reaffirmed by modern social science.¹⁶⁰ Contemporary sociologists, historians, and anthropologists agree that race is a socio-political construction that was created to rationalize European attitudes towards racial inequality.¹⁶¹ As discussed in more detail in Part I of this Article, researchers "have long discredited any biological or genetic definition of racial groups" given the essential historical observation that "the so-called races of mankind are the fortuitous and arbitrary inventions of European and American history, the by-products . . . of

155. *Id.*

156. *See* *People v. Wilson*, 136 P.3d 864, 867 ("Profile frequencies within the major racial groups in the United States [,] Caucasian, African-American, Hispanic, east Asian, and Native American[,] vary to such an extent that separate DNA databases are maintained for the purpose of providing accurate estimates of profile frequency.").

157. *See* *United States v. Bonds*, 12 F.3d 540, 550 (6th Cir. 1994) (illustrating how FBI use "molecular biology technique" to process DNA blood samples and compare them to genetic database).

158. Sundquist, *Due Process*, *supra* note 9, at 379.

159. *See generally* Lynn Jord & Stephen Wooding, *Genetic Variation, Classification, and "Race"*, 36 *NATURE GENETICS: PERSP.* S28 (2004) (discussing population genetics).

160. UNESCO, *FOUR STATEMENTS ON THE RACE QUESTION* 33 (1969); *see also* *Ho by Ho v. San Francisco Unified School Dist.*, 147 F.3d 854, 863 (9th Cir. 1998) ("That race is a social construct does not mean, of course, that the concept of it does not affect the way reality is sometimes perceived.").

161. AM. ANTHROPOLOGIST ASS'N, *supra* note 115, at 712.

Europe's religious, economic and imperial expansion¹⁶² Thus, the malleability of racial categories, varying quantitatively and qualitatively, undermines claims that race has a discernable biological component.¹⁶³

Notwithstanding the current rise of biological race groupthink, the majority of modern geneticists and biologists also concluded that race is genetically meaningless. First, population genetics research uniformly found that “allele frequency comparisons among human populations rarely show discontinuities that map onto racial boundaries.”¹⁶⁴ In fact, most studies found the opposite, and instead indicated that much greater genetic variation occurs within purported racial groups than as between racial groups.¹⁶⁵ Second, the argument that the “races” are genetic categories is undermined by the lack of an established scientific basis for classifying persons by race, much less populations.¹⁶⁶ In other words, there is no defined empirical method to classify DNA samples by race when collected and stored in forensic databases.¹⁶⁷ Rather, it appears that DNA samples categorized by race rely on either self-identification (e.g., the person whose DNA is collected identifies as “Black”) or outsider-identification (e.g., the law enforcement agent collecting the DNA sample believes that the person is “Black”).¹⁶⁸ Both analyses lack guiding criteria, resulting in a subjective inquiry too speculative to be considered a reliable methodological basis to support biological conclusions about race.¹⁶⁹

Finally, modern assumptions of variance between biological races conflict with foundational principles of population genetics—namely, the product rule, the Hardy-Weinberg principle, and principles of linkage-equilibrium.¹⁷⁰ The principles of population genetics allow for the multiplication of allele frequencies to generate an estimate of the overall frequency for which a particular allele occurs in a person.¹⁷¹ However, these principles assume that

162. Davis, *supra* note 115, at 7.

163. See generally Sundquist, *Due Process*, *supra* note 9, at 348–49 (referring to the use of socio-political and religious differences to promote class exploitation and conquest).

164. See Pilar Ossorio & Troy Duster, *Race and Genetics: Controversies in Biomedical, Behavioral and Forensic Sciences*, 60 AM. PSYCHOLOGIST 115, 116 (2005).

165. See, e.g., *id.* at 116–18; see generally B. D. H. Latter, *Genetic Differences Within and Between Populations of the Major Human Subgroups*, 116 THE AM. NATURALIST 220 (1980).

166. Madrigal, *supra* note 40, at 28–30.

167. Sundquist, *Due Process*, *supra* note 9, at 385.

168. *Id.* at 386.

169. *Id.*

170. Mark D. Shriver, *Introduction*, in MOLECULAR PHOTOFITTING: PREDICTING ANCESTRY AND PHENOTYPE USING DNA 1, 7 (2008). See also Sundquist, *Science Fictions*, *supra* note 9 for a more detailed explanation of the product rule, linkage-equilibrium and the Hardy-Weinberg principles that underlie the field of population genetics.

171. Shriver, *supra* 170. Researchers can use these principles to make conclusions about genetic differences between compared population groups.

each reference population group is sufficiently homogenous, i.e. each member of the group possesses allele frequencies that are identical or similar to others in the group. As such, a population group would not be deemed genetically homogenous if there is evidence of admixture—i.e. non-random mating between “groups”—or if migration occurs within the population group. Yet, migration occurs within “racial” groups and mating between “racial” groups is widespread.¹⁷² The calculation of genomic estimates based on supposed race, therefore, would violate principles central to the field of population genetics. Ergo, modern geneticists have concluded that race has no genetic meaning.¹⁷³

C. Understanding the Rise of Modern Race Theory

In spite of the foregoing, the conflation of racial difference with genetic difference continued to escalate over the past decade.¹⁷⁴ It is unclear why biological race theory is resurging, even though the evidence overwhelmingly indicates race is not genetic. Even more disturbing is why society quickly returned to considering race in genetic terms, even though such an association was previously seemingly unthinkable.

One possible explanation traces the return of genetic theories of race as an inadvertent byproduct of technological progress and positive liberal intentions. For example, in the health research field the practice of conflating social “races” with biological categories had seemingly benign origins. Promulgated by the well-meaning Office of Management and Budget (“OMB”) in 1997, “Directive 15” required federal agencies, as well as health researchers receiving federal funds, to collect and maintain “racial” data.¹⁷⁵ The directive was arguably intended in part to help health researchers respond to the significant and continuing problem of race-based health disparities.¹⁷⁶ However, the directive relied heavily on socially constructed census categories for “race” to guide the collection of such data and has

172. See generally Anthony Daniel Perez & Charles Hirschman, *The Changing Racial and Ethnic Composition of the U.S. Population: Emerging American Identities*, 35 POPULATION & DEV. REV. 1 (2009) (analyzing the degree of overlap of identities of racial and ethnic groups).

173. See e.g., Madrigal, *supra* note 40, at 25 (“it is impossible to claim that a discontinuous population structure with well-identified clusters has emerged so far”).

174. See *Alt Right*, SOUTHERN POVERTY LAW CENTER, <https://www.splcenter.org/fighting-hate/extremist-files/ideology/alt-right> (last visited May 22, 2018) (illustrating the movements using racial difference with genetic difference); Vivian Chou, *How Science and Genetics are Reshaping the Race Debate of the 21st Century*, SCI. IN THE NEWS (Apr. 17, 2017), <http://sitn.hms.harvard.edu/flash/2017/science-genetics-reshaping-race-debate-21st-century/> (stating that the Trump Administration has brought race as an incendiary issue in the twenty-first century to light).

175. OFFICE OF MGMT. & BUDGET, *supra* note 12.

176. Daniel J. Friedman et. al., *Race/Ethnicity and OMB Directive 15: Implications for State Public Health Practice*, 90 AM. J. PUB. HEALTH 1714, 1714 (2000).

essentially encouraged researchers to treat racial groups as biologically distinct populations.¹⁷⁷ Ultimately, Directive 15 facilitated assumptions by researchers that race-based health disparities were rooted in biological racial difference as opposed to epigenetic and/or socio-environmental causes (e.g., the health impacts of racial discrimination, poverty, diet and nutrition, and so forth).¹⁷⁸

Similarly, the field of population genetics in the post-Mendelian modern world was formed to better understand observable genetic differences between groupings within a species. Advancements in biotechnology following the Human Genome Project in 2000 allowed researchers to explore human genetic difference in a more sophisticated manner than previously possible.¹⁷⁹ And yet, the application of the principles of population genetics to study human genetic diversity has been fraught with controversy, due to the need to define scientifically meaningful “populations.”¹⁸⁰ Non-scientific “folk” notions of racial difference undoubtedly have impacted geneticists, judges, and others, which can lead those individuals to a mistaken assumption that racial taxonomies have meaningful genetic boundaries.¹⁸¹ Our embedded history of racial thinking, unconsciously or not, can perhaps explain why modern scientists—and everyone else—can so easily make mistaken assumptions about the supposed fixed nature of race.

The rise of modern biological race theory, however, can be more thoroughly understood as part of a broader socio-cognitive process where theories of racial difference rationalize the persistence of race-based inequality.¹⁸² As discussed previously, the artifice of “race” exists in order to reconcile the conflict between an ethos of democratic equality and persistent social inequality. This “American Dilemma” was initially mediated by early theories of biological racial difference before ceding way to “post-racial” rationalizations for inequality following World War II.¹⁸³

177. See AAA’s Response to OMB Directive 15, AM. ANTHROPOLOGICAL ASS’N (Sept. 1997), <http://www.understandingrace.org/about/response.html> (critiquing Directive 15 for its misguided reliance on the social construct of “race”).

178. *Id.*

179. Brenda Wilson & Stuart Nicholls, *The Human Genome Project, and Recent Advances in Personalized Genomics*, 8 RISK MGMT. HEALTHCARE POL’Y 9, 9 (2015) (discussing how the Human Genome Project furthered the advancement from traditional clinical genetics to personalized medicine and personal genomics).

180. See e.g., Chou, *supra* note 174 (discussing the controversy surrounding genetic based tests that over-simplify principles of population genetics and promise to estimate one’s ancestral composition down to 0.1% while science has shown that there are no exact categorical divisions between human populations).

181. See Roberts, *supra* note 137, at 297 (explaining why stark racial disparities exist by illustrating biological distinctions validated by genomic science).

182. See generally Sundquist, *Due Process*, *supra* note 9 (stating the usage of racial differences to legitimize exploitation).

183. See *infra*, Part I; Sundquist, *Due Process*, *supra* note 9, at 368–73.

Hence, the revival of genetic explanations of racial difference and inequality can then be seen as the contemporary manifestation of the historic normalization of social inequality.¹⁸⁴ Emboldened by significant advancements in genetic technology, modern “race science” risks normalizing existing inequality as the natural result of race-based biological differences in intelligence, criminal propensity, health, and other measures.¹⁸⁵ Under this view, disparities in education, health outcomes, and incarceration (among others) are seen less as owing to present day discrimination informed by a legacy of racial oppression and more as due to simple genetic differences between so-called “racial groups.”¹⁸⁶ The psychological desire to avoid the cognitive dissonance associated with acknowledging the fact of present-day structural racism has also contributed to the popularization of the new race science.¹⁸⁷ As Professor Roberts explains, “[b]iological distinctions, seemingly validated by genomic science and technology, appear to explain why stark racial disparities persist despite the abolition of official discrimination on the basis of race and despite most white American’s belief that racism has ceased to exist.”¹⁸⁸ Similar to the function of nineteenth century “race science,” the new race science plays a role in normalizing current and future inequality by appealing to the psychological need to reconcile the continued existence of race-based disparities with the belief that racism is aberrational in an ostensibly “post-race” society.¹⁸⁹

III. ON PRIVACY, SURVEILLANCE AND THE NEW RACIAL BIOETHICS

The modern embrace of biological technology and research, which makes assumptions of genetic racial difference, not only tends to naturalize social inequality, but also has the potential to undermine fundamental notions of personhood in our society.¹⁹⁰ Conceptions of personhood—that is, socio-legal understandings of human equality—have historically been mediated by

184. David S. Caudill, *Race, Science, History, and Law*, 9 WASH. & LEE RACE & ETHNIC ANC. L.J. 1, 3–4 (2003).

185. *Id.*

186. JACQUELINE BATTALORA, *BIRTH OF A WHITE NATION: THE INVENTION OF WHITE PEOPLE AND ITS RELEVANCE TODAY* 66 (Strategic Book Publishing & Rights Co., 2013).

187. Roberts, *supra* note 137, at 297.

188. *Id.*

189. Sundquist, *Due Process*, *supra* note 9, at 374–75; Cho, *supra* note 132, at 1612; Gary Blasi & John T. Jost, *System Justification Theory and Research: Implications for Law, Legal Advocacy, and Social Justice*, 94 CALIF. L. REV. 1119, 1124 (2006); *see generally* Evan P. Apfelbaum et al., *Racial Colorblindness: Emergence, Practice and Implications*, 21 CURRENT DIRECTIONS IN PSYCHOL. SCI. 205 (2012); Paul M. Collins, Jr., *Cognitive Dissonance on the U.S. Supreme Court*, 64 POL. RES. Q. 362 (2011).

190. Caudill, *supra* note 184, at 11.

identity distinctions such as gender, sexuality, immigrant status, and race.¹⁹¹ In fostering social, scientific and legal acceptance of the idea of biological racial difference, the new race science may shift understandings as to which persons are entitled to full membership, and thus equality, in our political and social community.¹⁹²

A. Genetic Personhood

Differential understandings of human worth—often framed in terms of intelligence, capacity for reason and free will, propensity for criminality, poverty, or hyper-sexuality, and physical difference—have historically shaped the boundaries of full personhood in our society.¹⁹³ Due to perceived gender differences, women have historically been, and still are, denied equal rights on the basis of their supposed inherent inequality to men.¹⁹⁴ In addition, persons not conforming to cis-gendered or hetero norms of gender and sexuality have historically and presently been deemed not entitled to full personhood, based on their supposed inequality as compared to cis-gendered persons.¹⁹⁵ Furthermore, non-citizens of the United States have been historically been and are currently still denied access to full equal rights based on their “immigrant” status.¹⁹⁶ Most notably, persons deemed to fall outside the boundaries of “whiteness” have been denied complete membership in our

191. See, e.g., *In re Lockwood*, 154 U.S. 116, 116–18 (1894) (confronting the issue of whether the definition of a citizen includes a woman); Jane Collier, Bill Maurer and Liliana Suarez-Navaz, *Sanctioned Identities: Legal Constructions of Modern Personhood*, 2 IDENTITIES 1 (1997); see also Martha Foschi, *Double Standards in the Evaluation of Men and Women*, 59 SOCIAL PSYCH. Q. 237, 238 (1996) (“According to expectation states theory, the resulting expectations will be a combination of all the information that the actor considers relevant to the situation. Ill use the term sex to refer to biological differences between men and women, and gender for cultural aspects of these differences. . . . As an example, I assume gender to be the diffuse attribute. Thus, when a man succeeds, two consistent pieces of information (status and level of performance) are available and a definite inference of competence results. Success by a woman, however, represents an inconsistent combination; therefore, a weaker inference of ability ensues. On the other hand, failure will be viewed as a consistent outcome for a woman but not for a man. Consequently, this outcome will be interpreted as indicating lack of ability more strongly in the female performer than in her male counterparts.”)

192. BATTALORA, *supra*, note 186; ALAN H. GOODMAN ET AL., RACE: ARE WE SO DIFFERENT? 155 (Wiley-Blackwell ed., 2012).

193. BATTALORA, *supra*, note 186.

194. See generally Martha Foschi, *Double Standards in the Evaluation of Men and Women*, 59 SOCIAL PSYCHOLOGY QUARTERLY 237 (1996) (exploring the ways in which, for example, lower standards of competence associated with women have shaped the way women are perceived in society compared to men).

195. *Id.*

196. See generally BILL ONG HING, DEFINING AMERICA THROUGH IMMIGRATION POLICY 3 (Temple University Press ed., 2004) (demonstrating a history of political and social discourse in America surrounding the debate of who to view as “real American” and who to grant access into the American community).

socio-political community on the grounds that they are not fully equal persons—biologically, culturally, or religiously—as compared to “white” persons; further, this denial continues to present day.¹⁹⁷

The modern trend to assume that race has biological meaning carries with it the risk of reifying borders and markers of racial difference.¹⁹⁸ The significant expansion of the collection of racial genetic information, sometimes stored indefinitely in massive private, state and federal databases, has led to the digital classification of persons by their interpreted race.¹⁹⁹ Simone Browne, an associate professor of African and African Diaspora Studies at the University of Texas Austin, describes this process of “digital epidermalization as a form of ‘racializing surveillance’ which “[imposes] race on the body” in order to render said bodies into “digitized code.”²⁰⁰ The creation of digital taxonomies of genetic racial difference, then, can be understood as a form of the “algorithmic production of knowledge” about race that may be interpreted as “more true” and scientifically valid than “non-big data forms” of knowledge about race.²⁰¹

B. Genetic Surveillance and DNA Databanking

The expansion of racialized forms of technological surveillance is perhaps best exemplified by the forensic DNA databanking context.²⁰² States have been at the forefront of legislative efforts to greatly expand when a DNA sample can be forcibly collected from those convicted of certain crimes, mirroring federal efforts to increase the size of the central DNA database.²⁰³ In 1998, the FBI developed the federal database, the Combined DNA Index System (“CODIS”) and federal and state law enforcement officers were directed to upload DNA samples to its massive collection of “convicted offender,” “forensic,” and “arrestee” profiles.²⁰⁴ Over the last few years, changes to federal law have broadened the grounds upon which a DNA sample may be taken from a person, and the number of DNA profiles

197. See BATTALORA, *supra* note 186 (using “whiteness” to define who was American, regardless of citizenship); GOODMAN, *supra* note 192.

198. See GOODMAN, *supra* note 192 (using race and identity as a basis for classification throughout the history of the U.S. census).

199. Ossorio, *supra* note 164, at 117.

200. Browne, *Digital Epidermalization*, *supra* note 31, at 133–34; see Simone A. Brown, U. Tex. at Austin: African & African Diaspora Studies Dep’t, <https://liberalarts.utexas.edu/aads/faculty/sb28889> (last visited May 22, 2018) (listing Professor Brown’s credentials).

201. *Id.*

202. See Ossorio, *supra* note 164, at 120 (collecting DNA of people convicted of crimes and even suspects in pretrial circumstances).

203. Browne, *Digital Epidermalization*, *supra* note 31, at 133–34.

204. See FEDERAL BUREAU OF INVESTIGATION, U.S. DEPARTMENT OF JUSTICE, CODIS: COMBINED DATA INDEX SYSTEM, U.S. DEP’T OF JUSTICE, http://www.fbi.gov/about-us/lab/biometric-analysis/codis/codis_brochure (explaining the FBI’s CODIS database).

maintained in CODIS to have more than doubled as a result.²⁰³ Although the forcible collection of DNA samples from convicted felons constitutes a “search” under the Fourth Amendment, courts have long held these searches to be constitutional given the “diminished expectations of privacy” of felons.²⁰⁴ An increasing number of states have also passed laws allowing for the collection of DNA samples from persons *merely arrested* on suspicion of committing certain crimes, specifically felonies.²⁰⁵

C. Genetic Privacy and the Constitution

The collection of a DNA sample from a person only arrested on suspicion of committing a felony arguably complicates the Fourth Amendment analysis, given the different governmental and individual privacy interests at stake.²⁰⁶ The Supreme Court addressed these thorny constitutional issues in its recent *Maryland v. King* decision.²⁰⁷ The case concerned the constitutionality of the Maryland DNA Collection Act, which required all persons arrested and charged with committing certain serious felonies to submit a buccal swab DNA sample.²⁰⁸ Alonzo King was one of the first individuals whose DNA was collected following arrest under the terms of the new law.²⁰⁹ King was arrested for allegedly menacing a group of people with a shotgun, and was charged with first and second-degree assault.²¹⁰ While being processed at a state booking facility, King’s DNA was collected via a buccal cheek swab.²¹¹ His DNA profile, however, was not uploaded to the Maryland DNA database until some three months later on July 13, 2009.²¹² King’s DNA profile was then matched three weeks after being uploaded to a crime-scene DNA sample collected from an unsolved 2003 rape case in Maryland.²¹³ On the basis of this newly found evidence, prosecutors obtained a grand jury indictment against King for the 2003 rape.²¹⁴ King was eventually convicted for 2003 rape, and appealed on the ground that his DNA

205. OSAGIE K. OBASOGIE, CTR. FOR GENETICS & SOC’Y, PLAYING THE GENE CARD? A REPORT ON RACE AND HUMAN BIOTECHNOLOGY 34 (2009).

206. See, e.g., *U.S. v. Sczubelek*, 402 F.3d 175 (3d Cir. 2005); *U.S. v. Kincade*, 379 F.3d 813 (9th Cir. 2004); *Green v. Berge*, 354 F.3d 675 (7th Cir. 2004) (showing a lax expectation of privacy in DNA samples being searches).

207. *King*, 569 U.S. at 444; OBASOGIE, *supra* note 205, at 34.

208. *King*, 569 U.S. at 465.

209. *Id.*

210. *King*, 569 U.S. at 441; MD. PUB. SAFETY CODE ANN. §2-504 (2009).

211. *King*, 569 U.S. at 441 (noting that King was arrested on April 10, 2009, and the Act was effective as of January 1, 2009); MD. PUB. SAFETY CODE ANN. §2-504 (2009).

212. *King*, 569 U.S. at 441.

213. *Id.*

214. *Id.*

215. *Id.*

216. *Id.*

was collected in violation of his Fourth Amendment privacy rights.²¹⁷

The majority decision in *King* upheld the constitutionality of such warrantless searches.²¹⁸ The majority conceded that a buccal swab DNA collection was a “search” within the meaning of the Fourth Amendment, recognizing that warrantless searches are generally unconstitutional unless they fit within one of the recognized exceptions in “reasonableness.”²¹⁹ The majority explained that “[w]hen faced with special law enforcement needs, diminished expectations of privacy, minimal intrusions, or the like” that certain warrantless searches may be found to be constitutionally reasonable.²²⁰ An exception to the warrant requirement will only be recognized if the “government interest . . . outweigh[s] the degree to which the search invades an individual’s legitimate expectations of privacy.”²²¹ Applying this balancing test, the majority held that the government interest in identifying persons taken into custody outweighed an arrestee’s privacy interest in avoiding buccal swab DNA collection and processing.²²²

As a preliminary matter, the majority’s assertion that the government interest in collecting DNA samples from arrestees is necessary to promote accurate identification (and therefore public safety) is debatable on a number of grounds.²²³ Initially, a DNA profile is typically not generated for a particular arrestee for weeks or even months, as the DNA sample must be sent to a forensic laboratory, which must process the sample, develop a DNA profile report, and upload the report to the state DNA database.²²⁴ In the case at hand, the defendant’s DNA profile was not uploaded to the DNA database for nearly three months, which thoroughly undercuts the majority’s weighing of the government interest in arrestee identification.²²⁵ Rather, the plain and obvious purpose of collecting and uploading the DNA profiles of arrestees is to enable the forensic investigation of crimes.²²⁶ However, such an investigatory motive is not sufficient to excuse a suspicion-less DNA search.²²⁷ The “special needs” exception to the warrant requirement can only

217. *Id.*

218. *See id.* at 465 (noting that Justice Kennedy delivered the majority opinion, and was joined by Justices Roberts, Thomas, Breyer, and Alito).

219. *See id.* at 446–47 (discussing the Fourth Amendment as a protection against intrusion and stating that the buccal swab of respondent constitutes a “search”).

220. *Id.* at 447 (citing *Illinois v. McArthur*, 531 U.S. 326, 330 (2001)).

221. *Id.* at 461.

222. *See id.* at 461–64 (discussing the fact that this “search” was conducted after being in police custody, creating a diminished expectation of privacy, and that the degree of intrusion was created by the buccal swab).

223. *Id.* at 456–69, 472–77 (Scalia, J., dissenting).

224. *Id.* at 472–73 (Scalia, J., dissenting) (stating that the state DNA database is linked to the federal CODIS database and assumes that the arrestee’s identity is already known).

225. *Id.* (Scalia, J., dissenting).

226. *Id.* at 474–75 (Scalia J., dissenting).

227. *Id.* at 476 (Scalia, J., dissenting).

be satisfied if the “primary purpose” of the search is *not* to obtain evidence for the purpose of solving crimes.²²⁸

The late Justice Scalia, in dissent, takes the majority to task for obfuscating the special needs doctrine in *King*, stating that “it is obvious that no such noninvestigative motive exists in this case.”²²⁹ In particular, Justice Scalia believed that the plain purpose of collecting such DNA was tied to ordinary law enforcement: “[t]he Court’s assertion that DNA is being taken, not to solve crimes, but to identify those in the State’s custody, taxes the credulity of the credulous.”²³⁰

The majority’s weighing of the privacy interests attendant to DNA collection was centered on three main contentions: (1) that a person arrested for a serious crime has a lessened expectation of privacy; (2) that the buccal cheek swab method of DNA collection was minimally intrusive to one’s body; and (3) that no genetic information about the arrestee is revealed beyond identification.²³¹ These arguments, however, have been thoroughly criticized for miscalculating the heightened expectation of privacy a “reasonable person” would have in the forcible collection and storage of their genetic profile in a massive DNA database.²³² The principal privacy concerns raised focus on the degree of bodily intrusion that accompanies forcible DNA collection,²³³ the expansion of legislative and police discretion to arrest persons with the purpose of DNA collection,²³⁴ the racially disproportionate collection of DNA evidence,²³⁵ and the potential “indefinite

228. *Id.* at 467–68 (Scalia, J., dissenting).

229. *Id.* at 466 (Scalia, J., dissenting).

230. *Id.* at 466 (Scalia, J., dissenting).

231. *Id.* at 465.

232. See, e.g., Rachel Cox, *Unethical Intrusion: The Disproportionate Impact of Law Enforcement DNA Sampling on Minority Populations*, 52 AM. CRIM. L. REV. 155, 173–74 (2015) (asserting the privacy concerns at issue are broader than those discussed by the majority in *King*); Elizabeth E. Joh, *Maryland v. King: Policing and Genetic Privacy*, 11 OHIO ST. J. CRIM. L. 281, 288–90 (2013) (critiquing the privacy concerns raised by the majority and asserting legislatures could broaden the scope of *King* to encompass *all* arrests).

233. Joh, *supra* note 232, at 287 (noting that Kennedy described the intrusion as a “quick and painless” cheek swab).

234. See Joh, *supra* note 232, at 282–83, 291–93 (discussing the ability of officers to arrest someone to collect DNA with a hunch the individual committed a different crime, the ability of legislatures to broaden DNA collection for any crimes, and the ability of police to engage in DNA collection as part of a *Terry* stop).

235. See Cox, *supra* note 232, at 160–66 (arguing that “states should enact statutes prohibiting DNA sampling of [minority] arrestees” to protect their privacy interests because U.S. law enforcement has a “propensity” to target minorities); OBASOGIE, *supra* note 205, at 36–39 (discussing the disproportionate effect DNA collection will have on minority citizens in light of *King*); See also PEW CHARITABLE TRS., ONE IN 100: BEHIND BARS IN AMERICA 2008 34 (Feb. 2008)

http://www.pewtrusts.org/~media/legacy/uploadedfiles/wwwpewtrustsorg/reports/sentencing_and_corrections/onein100pdf.pdf (providing statistics on arrestees in the United States).

retention” and future misuse of genetic information by the government.²³⁶

A concern that has been hitherto unstated is the impact of *King* on reifying biological understandings of race. First, the *King* decision has the potential to exacerbate embedded racial disparities in state and federal DNA databases by extending the grounds upon which DNA can be collected.²³⁷ The genetic profiles contained in the CODIS database are already skewed by race, with an estimated 40% of stored DNA profiles contributed by African Americans due to entrenched racial bias and profiling in policing.²³⁸ The expansion of genetic surveillance post-*King* will likely further entrench the databanking of racial disparities, further contributing to folk biological racial associations with criminality.²³⁹

Second, the privacy analysis in *King* failed to recognize the legitimate privacy interest in not having one’s genetic profile inscribed by race at a future trial. DNA samples from arrestees and convicted offenders are typically categorized by not only name, date of birth and address, but also by social markers such as race and gender.²⁴⁰ Consequently, the finding of a match between an arrestee’s DNA profile and a latent crime-scene DNA profile contained in CODIS makes it significantly likely that a race-based probability estimate will be admitted against the arrestee in a future criminal prosecution.²⁴¹ As such, the *King* majority failed to account for an individual’s heightened privacy interest in avoiding a biological race classification by the government.²⁴² It is beyond “reasonable” to expect that

236. Tania Simoncelli & Barry Steinhardt, *California’s Proposition 69: A Dangerous Precedent for Criminal DNA Databases*, 33 J.L. MED. & ETHICS 279, 285 (2005).

237. Cox, *supra* note 232, at 160–61; Joh, *supra* note 232, at 286–87 (hinting that expanding the legal grounds upon which DNA can be collected will have a racially disproportionate effect); see also Andrea Roth, *Maryland v. King and the Wonderful, Horrible DNA Revolution in Law Enforcement*, 11 OHIO ST. J. CRIM. L. 295, 308 (2013) (discussing how obtaining DNA information from arrestees would result in disparate impacts).

238. GREELY, *supra* note 8, at 258 (assuming, in the absence of confirmation “that African-Americans make up at least forty percent of the CODIS Offender Index.”); OBASOGIE, *supra* note 205, at 39–40; MICHAEL T. RISHER, RACIAL DISPARITIES IN DATABANKING OF DNA PROFILES 12 (ACLU 2009), https://www.aclunc.org/sites/default/files/racial_disparities_in_databanking_dna_profiles.pdf.

239. Roth, *supra* note 237, at 308–09.

240. See, e.g., FLA. STAT. § 943.325 (2017) (requiring that each DNA sample submission carry with qualifying markers including but not limited to: “the qualifying offender’s last name, first name, date of birth, race, gender, and State Identification (SID) number if known”).

241. See Sundquist, *Due Process*, *supra* note 9, at 381 (noting that racialized DNA estimates are more likely to be presented at trial than “general population” DNA estimates).

242. See *King*, 569 U.S. at 451, 465 (noting that if samples were analyzed for “factors not relevant to identity, that would present additional privacy concerns not present here.” When discussing identification, the Court noted that “records may be linked to the arrestee by a variety of relevant forms of identification, including name, alias, date and time of

the government will not introduce racialized genetic evidence, collected from a warrantless search, against a criminal defendant at trial.²⁴³ Further, it is an expectation that is not only surely reasonable from an individual standpoint, but one that “society [must be] prepared to recognize as reasonable.”²⁴⁴ While there may well be “no talisman that determines in all cases those privacy expectations that society is prepared to accept as reasonable,”²⁴⁵ our historical practice and modern consensus concerning the dangers of biological race associations support a finding of such a privacy expectation as objectively reasonable.²⁴⁶

IV. SHARED HUMANITY AND THE FUTURE OF RACIAL TECHNOLOGIES

At stake in the resurgence of biological notions of “race” is a crumbling of our social, ethical, and constitutional commitment to recognizing the shared humanity of all persons, without regard to odious distinctions such as “race.” The modern rise of genetic (mis)understandings of race not only threatens to normalize race-based inequality, but also undermines the fundamental right to “define one’s own concept of existence. . . and personhood.”²⁴⁷ Indeed, the Universal Declaration on the Human Genome and Human Rights acknowledges that “the human genome underlies the *fundamental* unity of all members of the human family, as well as the recognition of their *inherent dignity* and diversity.”²⁴⁸ A recognition of the shared humanity of all persons in our socio-political community is not only recognized by international norms, but is also at the core of our constitutional guarantees.

By way of illustration, the United States’ substantive due process doctrine protects the ability of individuals to define their own understanding of existence and personhood without government interference.²⁴⁹ The state classification of persons by their supposed biological race creates untenable

previous convictions and the name then used, photograph, Social Security number, or CODIS profile.” The Court seemingly notes that factors *not* relevant to identification should not be included but does not address the role race may have in identification).

243. *See id.* at 480 (Scalia, J., dissenting) (noting that “[Maryland’s] Act manages to burden uniquely the sole group for whom the Fourth Amendment’s protections ought to be most jealously guarded: people who are innocent of the State’s accusations”).

244. *Katz v. United States*, 389 U.S. 347, 361 (1967).

245. *O’Connor v. Ortega*, 480 U.S. 709, 715 (1987) (O’Connor, J., plurality opinion).

246. Greely, *supra* note 8, at 259.

247. *Lawrence v. Texas*, 539 U.S. 558, 574 (2003) (quoting *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 851 (1992)).

248. UNESCO, UNIVERSAL DECLARATION ON THE HUMAN GENOME AND HUMAN RIGHTS (1997) (emphasis added); Susanne Baer, *Dignity, Liberty, Equality: A Fundamental Rights Triangle of Constitutionalism*, 59 U. TORONTO L.J. 417, 442 (2009) (stating “equality was and is closely tied to liberty, based on a fundamental respect for humans that one may today call ‘dignity’”).

249. Sundquist, *Due Process*, *supra* note 9, at 388.

distinctions that threaten to normalize genetic discrimination, while infringing on the individual right to full personhood.²⁵⁰ The existence of a fundamental right to be free from biological racial classifications is “deeply rooted in this Nation’s history and tradition,”²⁵¹ given that American society has historically embraced sociological understandings of race in the aftermath of chattel slavery and World War II. For instance, the post-slavery Reconstruction Amendments sought in part to disrupt the narrative of biological racial difference—which had been wielded to legitimate inequality based on race—by appealing to the shared humanity of all persons.²⁵²

The recognition of such a fundamental right is also supported by an appeal to “reasoned judgment” and political-moral reasoning.²⁵³ Biological notions of racial difference resurrect the “badges and incidents of slavery”²⁵⁴ in a manner which violates the constitutionally-recognized “dignity” and “autonomy of the person.”²⁵⁵ It has long been argued that the Reconstruction Amendments should be construed as protecting African Americans and other non-white persons from the psychic harms attendant to the aforesaid badges and incidents of slavery.²⁵⁶ The concept of “racial dignity,” as summarized by Anthony V. Alfieri, professor of law and dean’s distinguished scholar at the University of Miami, refers to “the physical and psychological integrity of the self, experiences as an interior sense of worth and as an exterior acknowledgement of respect.”²⁵⁷ The government’s modern use of biological

250. *Lawrence*, 539 U.S. at 574 (quoting *Casey*, 505 U.S. at 851).

251. *See Moore v. City of East Cleveland*, 431 U.S. 494, 503 (1977) (Powell, J., plurality opinion) (referencing historical tradition in order to locate “fundamental right” for purposes of the substantive due process doctrine); Daniel O. Conkle, *Three Theories of Substantive Due Process*, 85 N.C.L. REV. 63, 63 (2006) (describing the three primary jurisprudential methods – historical tradition, reasoned judgment, and evolving communal values – used by the Supreme Court to identify fundamental rights under the substantive due process doctrine).

252. Sundquist, *Due Process*, *supra* note 9, at 391.

253. *See Conkle*, *supra* note 251, at 98 (discussing the “reasoned judgment” jurisprudential method of locating fundamental rights).

254. *See, e.g., Jones v. Alfred H. Mayer Co.*, 392 U.S. 409, 439 (1968) (discussing how the Reconstruction Amendments, and particularly the Thirteenth Amendment, was intended to “abolish the badges and incidents of slavery”) (citing *Civil Rights Cases*, 109 U.S. 3, 20 (1883)).

255. *See also* Anthony V. Alfieri, *Prosecuting Race*, 48 DUKE L.J. 1157, 1162–63 (1999) (discussing racial dignity, dignity, and equality. Professor Alfieri introduces the concept of “racial dignity,” in arguing that the Reconstruction Amendments intended to protect African-Americans and other non-white persons from the psychic harms attendant to the “badges and incidents of slavery.” He defines racial dignity as referring to “the physical and psychological integrity of the self, experiences as an interior sense of worth and as an exterior acknowledgement of respect”); *see generally* Anthony V. Alfieri, U. OF MIAMI SCH. OF L., <https://www.law.miami.edu/faculty/anthony-v-alfieri> (last visited May 22, 2018) (listing Professor Alfieri’s credentials).

256. Alfieri, *supra* note 255, at 1162–63.

257. *Id.*

racial distinctions undermines the “racial dignity” of non-white persons by providing official imprimatur to heretofore-discarded notions of biological racial inferiority. Further, the widespread state use of genetic racial distinctions also runs afoul of the fundamental right to “define one’s own concept of existence” by constraining the “ability of individuals to define and exercise their personal (racial) identity free of government compulsion.”²⁵⁸

Our equal protection jurisprudence has similarly provided that racial classifications by the state are presumptively unconstitutional, in part given that such classifications can promote perceptions of racial inferiority and stigma.²⁵⁹ Racial classifications have long been adjudged to be constitutionally suspect, because they “deny individuals their ‘personal rights’ to be treated with equal dignity and respect,” they risk stigmatic harm, and because they may “promote notions of racial inferiority and lead to a politics of racial hostility.”²⁶⁰ State action in the promotion of *biological* racial classifications, as our history demonstrates, risks the dehumanization of persons based on race by promoting “illegitimate notions of racial inferiority.”²⁶¹

CONCLUSION

Overall, it is facile to see that the color line has been geneticized. Genetic notions of racial difference are seeping back into our social consciousness, mistakenly seen as natural by advancements in biotechnology and are increasingly embraced by law. This Article has attempted to contribute to a broader “critical genomic consciousness,”²⁶² by examining the potential bioethical, social and legal consequences of modern “race science.” The

258. Sundquist, *Due Process*, *supra* note 9, at 395 (quoting Lawrence, 539 U.S. at 574).

259. See Michelle Adams, *Is Integration a Discriminatory Purpose?*, 96 IOWA L. REV. 837, 847 (2011) (“With the important exception of the University of Michigan Law School admissions scheme upheld in *Grutter*, the Supreme Court has invalidated every single racial-classification scheme that benefited a racial minority (and that did not intend to remedy the effects of past discrimination by employing the classification scheme). Racial classifications are presumptively unconstitutional under the Equal Protection Clause, even when intended to benefit members of groups formerly discriminated against, because such classifications deny individuals their ‘personal rights’ to be treated with equal dignity and respect,” they risk stigmatic harm, and because they may “promote notions of racial inferiority and lead to a politics of racial hostility.” Thus, it is very difficult for the government to solve for racial segregation using explicit racial preferences.”).

260. *Id.* (citing *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469, 493 (1989) (O’Conner, J., plurality opinion)).

261. *Grutter v. Bollinger*, 539 U.S. 306, 326 (2002) (quoting Croson, 488 U.S. at 493 (O’Conner, J. plurality opinion)).

262. See Browne, *Digital Epidermalization*, *supra* note 31, at 132 (explaining that a “genomic consciousness” is a concept from scholar Eugene Thacker, and further arguing for a greater biometric consciousness. This would involve informed public debate around ownership of and access to a person’s own body data, which should be understood as a right).

need has never been greater to remain vigilant about understanding the ways in which new technology, particularly biotechnology, can end up reifying racial taxonomies and normalizing inequality on the grounds of supposed biological difference. The new manifestations of biological race science not only entrench race-based disparities as caused by natural biological difference, but at the heart threaten the precept of shared humanity at the very heart of our constitutional democracy.