

## Reflections on race and the biologization of difference

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**ABSTRACT** In this article Gibel Azoulay critiques the tenacity of the correlation between ‘race’ as a socio-political notion and ‘race’ as a biological entity in academic circles in general and medical research in particular. Legacies of nineteenth-century scientific racism percolate into the public sphere, facilitating a uniquely US American cultural consensus that imagines and markets external physiological features as gross criteria for making distinctions, highlighting the medicalization of race in pharmaceutical, medical and genetic research.

**KEYWORDS** anthropology, biomedicine, genetic signature, genetics, identity, medicine, race, racial categories, scientific racism, taxonomy

### Making sense of difference

Curiosity and concern about *difference* persist because, on the one hand, it informs the ways in which social entities (groups) imagine and recognize themselves as collectives and, on the other hand, it defines the boundaries across which groups (social entities) compete for recognition, rights and resources, the three-pronged grid of power. Community manifests itself as a collective and subjective experience that is projected through idioms of identity. In this context, the intuitive and visceral sense of belonging becomes a sentiment that is culturally comprehensible within the community and articulated through degrees of inclusion and exclusion. How we conceptualize *difference*—how we interact with, live alongside and integrate with it—is reflected in and thought through the corollary and opposite idea, *sameness*. These epistemological and philosophical concerns have been stretched to become epidemiological ones in biomedical research. My intention in this article, prefaced by reflections on the vocabulary of race and concluding with a critique of the metaphor *genetic signature*, is to consider the implications of thinking through the prism of ‘difference’ and ‘race’ in biomedical and genetic research while bearing in mind the following principle: the concept of ‘race’ cannot be sanitized, salvaged or made palatable.

In contrast to ancient Greek conceptions of difference, which were organized around geographic space, it is sight that has been privileged by

Europeans.<sup>1</sup> In order to explain human variation as the latter perceived it, a cohort of elite (white) European and (Anglo) American scientists invented a myth of 'race'. The racial typologies that they elaborated are, to borrow from Frantz Fanon, a white man's artefact that deserves to be archived rather than displayed.<sup>2</sup> The word 'race', as Ashley Montagu complained in his 1942 book *Man's Most Dangerous Myth*,<sup>3</sup> conveys and normalizes the idea of a resistant variety of natural difference. In the United States, the popular or commonsense understanding of 'race' correlates certain physical characteristics and lines of descent. 'Race' is imagined and lived on the fault lines of skin colour and ancestry, as well as in the collective memory of groups whose members share a history of exclusion, marginalization and oppression based only on the colour of their skin or ancestry.

The body, metaphorically read as a text, is subject to interpretations and translations because learning to *see* and to create meaning out of what is seen is context-bound and situational.<sup>4</sup> This is exemplified when brown- and black-skinned visitors to the United States, particularly from Latin America, feel misidentified if presumed to be 'black', graphically demonstrated by the results of the 2000 US Census in which a significant percentage of people who marked the Hispanic/Latino 'ethnic' category refused to identify themselves by race and did not identify themselves as 'white'.<sup>5</sup> A more instructive instance of learning to discern meaningful difference is demonstrated when foreigners who visited conflict-ridden Bosnia, Rwanda and Northern Ireland failed to *see* the differences combatants assumed were obvious, even though documents were often required to identify individuals. Perhaps the most incisive lesson about perception is in the following anecdote, shared by Patricia Williams, about an exchange in the 1930s between a Haitian statesman and an American official:

'What percent of Haiti's population is white?' asked the American. 'Ninety-five percent,' came the answer. The American official was flustered and, assuming

- 1 V. Y. Mudimbe, 'The power of the Greek paradigm', *South Atlantic Quarterly*, vol. 92, no. 2, 1993, 361–86.
- 2 Frantz Fanon, *Black Skin, White Masks* (New York: Grove Press 1967).
- 3 Ashley Montagu, *Man's Most Dangerous Myth: The Fallacy of Race* (New York: Columbia University Press 1942).
- 4 John Berger and Frantz Fanon offer very different but equally provocative explications of the social construction of seeing: John Berger, *Ways of Seeing* (London: Penguin 1972); Fanon, *Black Skin, White Masks*.
- 5 Mireya Navarro, 'Going beyond black and white, Hispanics in Census pick "Other"', *New York Times*, 9 November 2003, 1. Academic research and media analyses that explore the relationship of physical appearance (skin colour) and class to perceptions of racial identity within Latin America (including Brazil) report that, although colour prejudice and racism exist, it is conceptualized and articulated differently than in the United States. Consequently, immigrants to the US have to learn a new vocabulary, new ways of seeing and new ways of thinking that, in turn, impact on social interactions within immigrant communities as well as between immigrants and with Americans.

that the Haitian was mistaken, exclaimed, 'I don't understand—how on earth do you come up with such a figure?'

'Well, how do you measure blackness in the United States?'

'Anyone with a black ancestor.'

'Well, that's exactly how we measure whiteness,' retorted the Haitian.<sup>6</sup>

If race is a matter of perception, not biology, why does it continue to be used in biomedical research and genetic studies? And, if population groups are not products of nature but products of history—and therefore socially constituted and reconstituted on the basis of changing circumstances—who has the authority to delineate, define and name a group? For what purpose and on what basis?

Teaching at a residential liberal arts college has taught me the importance of directing student attention to the historical contexts within which authority validates knowledge as credible or acceptable. It has also made me appreciate being in the classroom, professing rather than protesting the significance of race as ideology, not biology, 'which came into existence at a discernible historical moment for rationally understandable historical reasons and is subject to change for similar reasons'.<sup>7</sup> No semester ends without a student complaining about a frustrating conversation about 'race' outside the classroom in which the attempt to share new understandings about the history of the concept is obstinately met with the insistence that '*race* is real, we can see it, we experience it, it's part of nature'. The argument that race is a social construction is dismissed as academic hyperbole, the evidence for this point provided by media reports of racial(ized) medical disorders and diseases.

In response, I point out that challenging ways of thinking is especially difficult when the terms 'race' and 'ethnicity' are routinely used in textbooks, academic texts, popular publications and the media as a shorthand reference for people.<sup>8</sup> Backed by such an arsenal of support, 'race' is not merely an abstract category of analysis but becomes part of the social vocabulary, signifying discrete populations distinguished by identifiable visible markers (phenotype). In the last forty years, the development of new technologies has enabled molecular biologists to study genotype (invisible markers). Research

6 Patricia Williams, *Seeing a Color-Blind Future: The Paradox of Race* (New York: Noonday Press 1998), 52.

7 Barbara Jeanne Fields, 'Slavery, race and ideology in the United States of America', *New Left Review*, no. 181, May–June 1990, 95–118 (101). See Fields's article on 'ideology' as a reference point for deeply rooted commonsense thinking; for a more comprehensive examination of the concept, see Terry Eagleton, *Ideology: An Introduction* (London: Verso 1991).

8 Barbara Jeanne Fields, 'Categories of analysis? Not in my book', in *Viewpoints: Excerpts from the ACLS Conference on Humanities in the 1990s*, American Council of Learned Societies Occasional Paper, no. 10 (New York: ACLS 1989), available online at [www.acls.org/op10fields.htm](http://www.acls.org/op10fields.htm) (viewed 26 July 2006).

in this field should have exorcised the myth of biological race and pioneered radically new biocultural paradigms. Yet, despite molecular biology's promise of a more sophisticated examination of human variation beneath and beyond the surface of the skin, phenotype remains well within the repertoire of scientific speculation. As a category of analysis and a tool to differentiate populations, *difference* continues to be thought through the prism of race, which organizes population groups by appearance, geography and language and coincides with nineteenth-century racial typologies.<sup>9</sup>

### **The overlap of race, ethnicity and culture**

When I send students to seek out encyclopaedia entries on 'race' and 'ethnicity', they return bewildered by the overlap between terms they assumed were distinct. As an example of this confusion, consider the following two definitions:

The terms (ethnic groups, ethnicity) began to be used in the period immediately after World War II as a substitute for older terms as 'tribes' and (in British usage) 'race'.<sup>10</sup>

The term 'ethnicity' is of recent origin and ... refers to both seeing oneself and being seen by others as part of a group on the basis of presumed ancestry and sharing a common destiny with others ... The common features may be racial (color), religious, linguistic, occupational or regional. The term 'ethnic group' appeared in part as a substitute for the words 'race' and 'tribe' and as a synonym for 'cultural group'.<sup>11</sup>

9 Appearance (phenotype), geography (continent and nationality) and invisible markers (genotype) all serve as surrogates for 'race' while, in turn, 'race' is used as a surrogate for biology. This underlines the question of whether purported correlates between genes and human population groups are based on prescriptive research in which researchers who identify these correlations are merely confirming, rather than casting doubt on, their expectations. In a special issue on race, the academic journal *Nature Genetics* included articles in which, as *New York Times* journalist Nicholas Wade reported, 'several geneticists wrote that people can generally be assigned to their continent of origin on the basis of their DNA, and that these broad geographical regions correspond to self-identified racial categories, such as African, East Asian, European and Native American. Race, in other words, does have a genetic basis, in their view.' That view was challenged by several Howard University scholars who countered that 'there was no biological basis for race and that any apparent link between genes and disease should be made directly, without taking race into account'. Nicholas Wade, 'Race-based medicine continued ...', *New York Times*, 14 November 2004.

10 Thomas Barfield (ed.), *The Dictionary of Anthropology* (Oxford and Cambridge, MA: Blackwell 1997).

11 Alan Barnard and Jonathan Spencer (eds), *Encyclopedia of Social and Cultural Anthropology* (London: Routledge 1996).

As the term 'ethnicity' gained widespread popularity, percolating from the academy into the public arena, its origins as a substitute for 'race' in response to Nazism faded from public memory. From the 1940s the term 'ethnic groups' in the United States became associated with groups previously thought of as European races that had blended politically into the melting pot of generic whiteness.<sup>12</sup> In contrast, 'race' became the term that signalled the ubiquitous line that divided Whites from 'Coloreds/Negroes' (defined by having an African ancestor rather than by colour).<sup>13</sup> The first encyclopaedia entry above makes clear that 'ethnicity' was introduced to replace the terms 'race' and 'tribe'. This change occurred against the backdrop of anti-racist activities in the United States and anti-colonialist movements throughout Africa and Asia. Anthropologist Ashley Montagu, the staunchest advocate for banishing the word 'race' altogether, argued that 'ethnicity' was an ideal substitute because, as a new term, it was politically neutral. If scholars and lay people used 'ethnicity' (instead of 'race'), with its emphasis on environmental and social conditions as explanations for group differences, then the way they thought about difference would also change.<sup>14</sup>

12 Focusing on Asian Americans, Susan Koshy persuasively argues that racial vocabularies shift to ethnic ones as class mobility emerges, proving the elasticity of whiteness. Susan Koshy, 'Morphing race into ethnicity: Asian Americans and critical transformations of whiteness', *boundary 2*, vol. 28, no. 1, Spring 2001, 153–94.

13 For the alchemy of race, a process of whitening Irish, Eastern and Southern European immigrants initially perceived as inferior races polluting the white Anglo-Saxon racial integrity of the nation, see Matthew Frye Jacobson, *Whiteness of a Different Color: European Immigrants and the Alchemy of Race* (Cambridge, MA: Harvard University Press 1998). Note as well the absence of uniformity in legal definitions of who was a 'Negro' or 'colored person', as these were determined by state, not federal statutes.

14 Within the discipline of anthropology, racial categories were challenged in the early twentieth century as Euro-American nativism and European antisemitism gathered force, and scrutiny of Jewish difference, in particular, ceased to be perceived as a matter of benign scientific interest. For instance, Franz Boas spent considerable time evaluating the relationship between environment and biology in order to prove that *nurture*, not *nature*, was responsible for differences between new immigrants and white Euro-American citizens. His studies of Jewish immigrants from Eastern Europe and their children provided—unsurprisingly, with hindsight—clear evidence that a changed social environment, including new occupations, diets and new patterns of exercise, altered the bodies (physical type) of the newcomers from impoverished backgrounds as characterized by prevailing stereotypes in their countries of origin. There is no reason to obscure the obvious: Boas, however discretely and with whatever degree of self-consciousness, also had a personal stake in establishing legitimacy among colleagues who were quite open about their animosity towards Jews. See G. M. Morant, 'Racial theories and international relations', *Journal of the Royal Anthropological Institute of Great Britain and Ireland*, vol. 69, no. 2, 1939, 151–62, for a stringent critique of the imprecision of the race concept, its abusive contribution to racist propaganda and the irresponsible silence of anthropologists.

As the second encyclopaedia entry indicates, contrary to Montagu's hopes, 'ethnicity' did not replace or displace 'race'. In the United States, the semantic transition of European immigrants from white racial types to white ethnics erased all trace of the racial vocabulary and imagery, so central to nineteenth- and early twentieth-century discourses of difference,<sup>15</sup> from the national collective memory. At the same time, 'race' continued to be associated with the epidermal surface of the body: skin colour.<sup>16</sup> However, while 'ethnicity' added culture and heritage to its definition, it also remained anchored to ancestry and shared descent. Consequently, metaphors of roots, blood and common origin have bound it to the race concept it was meant to replace.

The problem is simple: in the matter of race, there is no such thing as 'getting it right'. There are no generic races precisely because race is a metaphor, a social construct: a human invention whose criteria for differentiation are neither universal nor fixed but have always been used to manage difference. 'Race', 'ethnicity' and 'culture' manifest themselves as metonyms that presuppose difference to be inherited. After all, one does not wake up in the morning and arbitrarily declare oneself to be Chinese, Cherokee or Chicano and seriously expect to be identified and recognized as such without some proof. And once recognition is contingent on evidence we are directed to the registry of socio-political and legal—not biological—affairs.<sup>17</sup> Let us turn to one scientific text whose authors try and fail to turn away from the race concept.

Writing on the relationship between 'ethnicity and drug therapy for hypertension', the authors begin by disclaiming conventional race categories because the usefulness 'of race or skin color' is limited: '... whites and blacks are neither genetically homogeneous, nor exclusive of each other's genetic traits'.<sup>18</sup> Having equated 'race' with skin colour, and tentatively cast doubt on the utility of race categories, they then retreat and inform us that 'recent advances in genetics have made it possible for researchers to compare the human genome across races', and point to the genetic pool in Africa that 'contains more variation than elsewhere', proving that 'most of the genetic difference between two individuals is because they are not the same person, rather than because they are of different races'.<sup>19</sup> 'Race', however, is not a shibboleth that the authors toss out; rather, they propose examining populations as 'ethnic groups'. Ethnicity, they argue, 'has incorrectly been used as a synonym for race. In fact, ethnicity is a multidimensional classification that encompasses shared origins, social background, culture

15 For one late nineteenth-century review of contemporary research on 'the races of Europe', see Carlos C. Closson, 'The races of Europe', *Journal of Political Economy*, vol. 8, no. 1, 1899, 58–88.

16 Jacobson, *Whiteness of a Different Color*.

17 Katya Gibel Azoulay, 'Outside our parents' house: race, culture and identity', *Research in African Literature*, vol. 27, no. 1, 1996, 129–42.

18 K. Amudha, L. P. Wong and A. M. Choy, 'Ethnicity and drug therapy for hypertension', *Current Pharmaceutical Design*, vol. 9, no. 21, 2003, 1691–701 (1691).

19 Ibid.

and environment'.<sup>20</sup> Setting aside their error about the term's history, they overlook 'shared origin' as the common denominator between the concepts of 'race' and 'ethnicity'. Predictably, the vocabulary becomes confused when articulating the focus of the research project: 'examining the *black-white* differences in physiological responses to pharmacological challenges that may provide a link between these models and known *ethnic differences* in drug responses'.<sup>21</sup>

Here we have an instance, and examples occur throughout the medical literature, in which a preference for 'ethnicity' over 'race' is a semantic change that fails to disrupt the kind of race-thinking that leads to a biological differentiation between Whites and Blacks. Like most scientific articles, there is no operational definition of 'Blacks' (also referred to as 'American Blacks' and 'African Americans') or 'Whites' (sometimes labelled 'Caucasians').<sup>22</sup> How are 'Blacks' and 'Whites' defined as subjects of medical research when aggregate race categories muddle science and ideology?<sup>23</sup> Although notions of racial

20 Ibid.

21 Ibid. (emphasis added).

22 Consider the 1928 conclusions of anthropologist Melville Herskovitz who estimated that, contrary to 'the general belief that the "pure" Negroes were the majority . . . almost 80% show mixing with White or American Indian, or both stocks', while, in terms of ethnic diversity, a blending of African groups had occurred among the slave population in the United States. Melville J. Herskovitz, *The American Negro: A Study in Racial Crossing* (New York: Alfred A. Knopf 1928), 10; see also Gunnar Myrdal, *An American Dilemma: The Negro Problem and Modern Democracy* (New York: Harper 1944), 1205 and August Meier, 'The racial ancestry of the Mississippi College Negro' [1949], in *A White Scholar and the Black Community, 1945-1965: Essays and Reflections* (Amherst: University of Massachusetts Press 1992). Despite public rhetoric against miscegenation, sexual relations between Anglo-American men and black slave women were tolerated throughout the slave period since they added to the slave population, as evidenced by statutes regulating the status of children of slave women; see Sidney Kaplan, 'The miscegenation issue in the election of 1864', *Journal of Negro History*, vol. 34, no. 3, 1949, 274-343.

23 Consider the clarification of terminology in the ruling issued in *The People of the State of California v. George W. Hall* (1854). George Hall, 'a free white citizen' of California convicted of murder on the testimony of a Chinese witness, successfully appealed its admissibility before the Supreme Court of California. Judge Charles Murray delivered the opinion of the court: 'The word "Black" may include all Negroes, but the term "Negro" does not include all Black persons. . . . In using the words, "No Black, or Mulatto person, or Indian shall be allowed to give evidence for or against a white person," the Legislature, if any intention can be ascribed to it, allowed the most comprehensive terms to embrace every known class or shade of color, as the apparent design was to protect the white person from the influence of all testimony other than of persons of the same caste. . . . We are of the opinion that the words "White," "Negro," "Mulatto," "Indian," and "Black person," wherever they occur in our Constitution and laws, must be taken in their generic sense, and that . . . the words "Black person" . . . must be taken as contradistinguished from White and necessarily excludes all races other than the Caucasian.' The Chinese witness, Judge Murray concluded, was *generically* 'black'; therefore, his testimony was deemed inadmissible.

purity have been discredited, it is difficult to ignore their imprint when the social vocabulary of race is used so casually and carelessly in medical research.<sup>24</sup>

Let us return to the students in my class. It takes only a few weeks for students to learn about the history of classifying groups as well as the corollary evolution of a field of enquiry that defined 'race and racial typologies' as a respectable and requisite subject for study. It takes an entire semester or more for them to digest the full weight of the legacy of this history. Reading a random comparison of race categories used in the US Census between 1850s and 2005, and articles on 'race and racial typologies' from respected nineteenth-century journals such as the *Journal of the Anthropological Institute of Great Britain and Ireland*, provide concrete and compelling evidence of the changing criteria used 'to race' groups. Documents culled from a century of research on race challenge, and usually undermine, students' assumptions that races are a natural division of people and that these divisions are based on visible appearance. Not only do they discover the lack of consensus over the number of races that have been identified by scholars, but they are often shocked by the inconsistency of the criteria used to differentiate between populations. Confronted by the histories that conditioned the development of the science of race, students acquire a more skeptical perspective on theories that presuppose racial categories as a starting point for examining difference between groups of humans. The encyclopaedia assignment leads students to discover the trace of race in all the entries on ethnicity. Subsequently, they begin to pay closer attention to the way the terms surface in everyday conversation, academic discourse and the media. Very quickly they notice that unless 'race' and 'ethnicity' appear as self-evident and without definition, in scientific papers and presentations no less than in popular discourses.

Turning to an excerpt from an essay that advocates the use of race in pharmacological research, readers are confidently advised:

24 On three different visits to the pulmonary clinic at the University of Iowa Medical Center, the registration clerks entered 'White' or 'Other' into their database for my white-looking daughter despite the fact that I had written 'Black/African-American' on the registration form. Evidently the information I initially supplied was invariably edited after we left, for at each visit we repeated the same ritual of clarifying the race-category information. The irony is that the asthmatic symptoms for which my daughter was then being monitored were inherited from my Ashkenazi Jewish grandmother and/or my Afro-Cuban Jamaican father. The claim for scientific merit in a multiracial category in medical research ignores the reality that the genealogy of most human beings reflects diverse geographical and national points of origin, each of which have their own racializing inscriptions of difference. See Robert Young, *Colonial Desire: Hybridity in Theory, Culture and Race* (London: Routledge 1995).

there should be more—not less—study of how people of different *rac*es respond to drugs. While *ethnicity* can be an imperfect measure, understanding the interplay between *race* and drug efficacy could be a crucial tool in ferreting out the *genetic traits* that could one day allow researchers to better tailor drugs to individuals.<sup>25</sup>

In this passage, ‘race’ and ‘ethnicity’ are synonyms used to avoid repetition. Neither of these terms is a ‘discursive category’; they are rather presented as a physiological entity. Hidden beneath the exterior surface of the body lurks a set of essential characteristics (genetic traits) awaiting discovery. Once ‘ferreted out’, they may be unique to that individual but—an example of the biologization of difference—the (re)search begins with a preconceived map of ethno-racial groups that are recognizable. Individuals are then assigned to groups based on socio-political preconceptions.<sup>26</sup> Even where self-identification is used and individuals assign themselves to groups, ‘race’ and ‘ethnicity’ are socio-political, not biological, categories.

Molecular biology and genetic studies should have undermined the scientific validity of using any exterior cues to read the body and, perhaps more significantly, should have sent scientists back to the drawing board for more insightful ways to delineate population groups for study. Although genetic studies are promoted as a new field attentive to genetic codes that invalidate race as biology, the concept of ‘race’ continues to be deployed as an organizer of difference. Stuart Hall compellingly attributes this durability to the need for a guarantee of truth.<sup>27</sup> The problem is prescriptive, rather than open-ended, research: researchers begin by looking for genetic markers of population groups

25 Amy Barrett, ‘Color-blind drug research is myopic’, *Business Week*, 27 June 2005, 44 (emphasis added).

26 A relatively banal instance appears in a project on sensitivity to pain in which the researchers note the prevailing hypothesis that genetic factors contribute to pain. They organize their research according to pre-existing social categories of ethnicity in order to compare the effects of stimuli on different groups. The project involved ‘a total of 500 normal participants (306 females and 194 males)’, comprised of ‘62.0% European American, 17.4% African American, 9.0% Asian American, and 8.6% Hispanic, and 3.0% individuals with mixed racial parentage’. Not only are each of these social categories treated as discrete genetic entities, but even ‘Hispanic’ is treated as a generic race category. Predictably, the conclusions conform to and confirm the racial typology: ‘Our observations demonstrate that gender, ethnicity and temperament contribute to individual variation in thermal and cold pain sensitivity. K. Hyungsuk, John K. Neubert, Anita San Miguel, Ke Xu, Raj K. Krishnaraju, Michael J. Iadarola, David Goldman and Raymond Dionne, ‘Genetic influence on variability in human acute experimental pain sensitivity associated with gender, ethnicity and psychological temperament’, *Pain*, vol. 109, no. 3, June 2004, 488–96.

27 *Race: The Floating Signifier*, video recording, featuring Stuart Hall, produced, directed and edited by Sut Jhally (Northampton, MA: Media Education Foundation 1996).

and then correlate them to familiar ethnic and racial phenotypes.<sup>28</sup> Removing the certainty of biological race necessitates alternative explanations of difference. To move in this direction is to move away from any guarantee of truth.

### **Distinguishing social fact from biological fiction**

The startling announcement that the Food and Drug Administration had approved a new heart drug specifically targeting black Americans was a reminder that race continues to be viewed as a viable biological variable among the science community, despite its history as an invention by eighteenth-century naturalists who were classifying everything they could see in order to make sense of their world. In that era of slavery and European colonial expansion, the presumption that humans could be divided according to visible physical characteristics seemed to correlate with divisions according to geographical areas and technological differences. Aesthetic and political biases informed the classification of human populations as species, later revised as a hierarchy of racial types ranked by degrees of civilization. By the mid-1800s the science of race had gained momentum as a prestigious field within which to study racial typologies. Cranial capacity as a measurement of intelligence, as well as shape of nose, feet, ears and other parts of the body, were used to identify racial status, deviance, moral incorrigibility and servility. Metaphors of 'hybridity' connected biology with botany to signify a physiological phenomenon with political and cultural implications while heterosexual unions in the colonies, between colonizers and colonized, challenged theories of repugnance, infertility and degenera-

28 Unsuccessful efforts to find substantive differences between racial groups, where 'race' is defined by skin colour, have not led researchers to conclude that this kind of enquiry should be abandoned. In an article reviewing findings on racial differences in skin pathophysiology, the authors conclude that more—not less—research is needed because 'we still cannot answer the question, "how resistant is black skin compared with white?"; Enzo Berardesca and Howard Maibach, 'Racial differences in skin pathophysiology', *Journal of the American Academy of Dermatology*, vol. 34, no. 2, 1996, 667–72. Hu *et al.* claim evidence for their conclusion that 'difference in the incidence of uveal melanoma between each racial/ethnic group was highly statistically significant, with the exception of the black versus the Asian population in which there was no statistically significant difference'; D. N. Hu, G. P. Yu, S. A. McCormick, S. Schneider and P. T. Finger, 'Population-based incidence of uveal melanoma in various races and ethnic groups', *American Journal of Ophthalmology*, vol. 140, no. 4, October 2005, 612–17. See also Melbourne Tapper's study of the tenacity with which scientists correlated sickle cell anaemia with ethnological categories, characterizing the medical disorder as a 'black disease'. Confronted by evidence to the contrary, explanations were offered linking patients to migrations from Africa that occurred several centuries earlier; Melbourne Tapper, *In the Blood: Sickle Cell Anemia and the Politics of Race* (Philadelphia: University of Pennsylvania Press 1999).

tion. Racial discourse highlighted the centrality of power in its politicization of sex, illustrated in British concerns over mixed-race people in India and South Africa, and fuelled debates in the United States over the annexation of Mexico. Finally, litigation in US courts over the racial status of individuals testified to the contradictions of racial categories as the criteria were consistently unstable and unreliable.<sup>29</sup>

This brief overview highlights 'race' as an academic fiction that took root as an ideology of difference and served to rationalize, buttress and justify discriminatory legislative and political policies. Although today most scientists no longer attempt to correlate racial difference with innate mental characteristics or value systems, the belief that race refers to measurable physiological differences is still promoted as credible. One recent and astounding example is a pilot study that examined

multivariate craniofacial anthropometric distributions between biologically admixed male populations and single racial groups of Black and White males. Multivariate statistical results suggested that nose breadth and lip length were different between Blacks and Whites. Such differences may be considered for adjustments to respirators and chemical-biological protective masks. However, based on this pilot study, multivariate anthropometric distributions of admixed individuals were within the distributions of single racial groups. Based on the sample reported, *sizing and designing for the admixed groups are not necessary if anthropometric distributions of single racial groups comprising admixed groups are known.*<sup>30</sup>

Reports in both the media and academic journals on race and medicine fail to specify the criteria used to determine racial classification although it is reasonable to suggest that researchers and readers assume that groups studied or tested in clinical trials are classified by popular notions of race with concordance between appearance and self-identification. Consequently, reports about the positive impact of BiDil on 'Blacks' and 'African Americans' relied on the presumption of visibly brown-skinned individuals rather than explicit information on the criteria used to determine who was Black or African American. This is a serious oversight. Given the diverse

29 On the variety of courtroom arguments and legal strategies used to control racial ambiguity and maintain racial difference, see Ariela J. Gross, 'Litigating whiteness: trials of racial determination in the nineteenth-century South', *Yale Law Journal*, vol. 108, no. 1, October 1998, 109–80; Michael Elliott, 'Telling the difference: nineteenth-century legal narratives of racial taxonomy', *Law & Social Inquiry*, vol. 24, no. 3, 1999, 611–36; and John Tehranian, 'Performing whiteness: naturalization litigation and the construction of racial identity in America', *Yale Law Journal*, vol. 109, no. 4, January 2000, 817–46.

30 M. Yokota, 'Head and facial anthropometry of mixed-race US Army male soldiers for military design and sizing: a pilot study', *Applied Ergonomics*, vol. 36, no. 3, May 2005, 379–83 (emphasis added).

ancestral backgrounds of most Americans of African descent—including both European and American Indian ancestors—as well as the ‘forgotten’ ancestry of some self-identified white Americans—those whose ancestors ‘passed’ for white, Spanish or Indian—it seems distinctly *unscientific* to rely on either self-identification or observation as the primary criterion for determining physiological differences. NitroMed’s decision to test BiDil on self-identified Blacks, and its subsequent conclusion that the drug proved more effective in them than in Whites reinforced the validity of considering ‘race’ as a biological concept. This created both a pedagogical opportunity and a challenge for educators who teach that race and racial categories are simultaneously a social fact and a biological fiction.

Commonplace ideas about race register the gross physical features of the body that serve as templates for the stories and metaphors that compose meaningful difference. The ideologies that give substance to ideas of racial distinction ignore or overlook more durable and immutable variables, such as digestive enzymes and blood types, as criteria for constructing typologies used to study groups of people.<sup>31</sup> Switching from ‘race’ to such typologies requires a perceptual and conceptual transformation of scientists and social scientists working in different areas of population studies. Instead, the presumption of an essential immutable ‘racial’ distinction, reflected in claims about the unique effectiveness of BiDil on ‘African Americans’, conveniently deflects attention away from societal factors that cause cardiovascular disease. Rather than attribute the *appearance* of ‘race-based’ differential responses to ‘race’, a more responsible approach would be to examine differences in the physiological impact of living in a *racialized* society in which apparent difference between population groups are a consequence of different experiences with racism, racial discrimination and both overt and covert prejudice. The biologization of race is not just bad politics but also bad science. Though criticized by some scientists, the tautological use of ‘race’, in which it is informed by and reproduces *racialized truths*, remains deeply embedded in ‘ritualized scientific practice’.<sup>32</sup>

Debates over advertising BiDil as ‘an ethnic drug’ again revealed the overlap between the terms ‘ethnicity’ and ‘race’. More importantly, they centred around the question of whether race has epidemiologic utility. Opponents urged more attention to racism as a substantial negative health factor impacting Blacks differently than Whites. While Sharon Wyatt *et al.* argued that comparative research on rates of cardiovascular disease among different social groups should begin with the differential effect of institutionalized racism, Jules Harrell *et al.* presented supporting evidence that direct

31 Stephen Jay Gould, ‘The geometer of race’, *Discover*, vol. 15, no. 11, November 1994, 64–9.

32 Sandra Soo-Jin Lee, Joanna Mountain and Barbara A. Koenig, ‘The meanings of “race” in the new genomics: implications for health disparities research’, *Yale Journal of Health Policy, Law and Ethics*, vol. 1, Spring 2001, 33–75.

encounters with discriminatory events contributed to negative health outcomes.<sup>33</sup> An alternative to the presupposition of a correlation between race and biology might be the question of whether the stress of racism leads to medical disorders in ways that are analogous to the stress of noise-level or sitting in traffic. If these stresses are analogous, a more efficient approach might be to identify and examine racism as a risk factor that explains race-based disparities in cardiovascular disease. If this is the starting point, then race as a *social* fact does indeed have epidemiologic utility. In fact, this is hardly a novel idea: the link between racism and health was pioneered by psychiatrist and political theorist Frantz Fanon in the field of psychiatry when he identified colonialism as the causal agent for most of the psychological disorders of his patients, and prescribed its overthrow as the cure. Until racism is placed under the microscopic gaze of medical and genetic research, we will not know whether health-related disorders currently over-represented in the population identified as Black/African American are a result of racism or the experience of *being raced*.

### Popularizing the myth of race

Though it may be a truism to note the significant role television plays as a conduit of information and misinformation, it is nevertheless worthy of attention as the following example shows. Several months ago, I watched an episode of the popular crime scene investigation series *CSI*. The central theme of this episode focused on the murder of a thirteen-year-old girl who had been intentionally conceived by her parents as a medical resource for their only son who suffered from a deadly and rare disease that required a matching blood type. Over the years, the daughter donated her blood and bone marrow but the sorry situation escalated until her brother needed a kidney transplant. The daughter was designated to be the donor in yet another painful medical procedure. But, as a normal teenager who wanted to have fun rather than be confined to a hospital bed, she began to express reservations, much to the chagrin of her mother. The investigation concluded with the revelation that the brother killed his sister to save her from another medical ordeal on his behalf. So much for the plot.

*CSI* is among a number of television programmes that intentionally convey information on health-related issues. This episode identified the

33 Sharon B. Wyatt, David R. Williams, Rosie Calvin, Frances C. Henderson, Evelyn R. Walker and Karen Winters, 'Racism and cardiovascular disease in African Americans', *American Journal of the Medical Sciences*, vol. 325, no. 6, June 2003, 315–31; Jules P. Harrell, Sadiki Hall and James Taliaferro, 'Physiological responses to racism and discrimination: an assessment of the evidence', *American Journal of Public Health*, vol. 93, no. 2, February 2003, 243–8.

main characters as a 'mixed-race' couple, a Latino father and his white American wife, which set the context for describing their children as 'racially mixed'. Relying on commonsense notions about distinctions between social groups, this representation of marriage across socially defined racial lines reinforced the premise that 'race' is more than a social category and experience: 'race' from this perspective is located within the body. Consequently, the logic behind the episode, which made the plot culturally comprehensible to its American audience, necessarily relied on a biological understanding of 'race' as well as a mistaken assumption that the label 'Hispanic/Latino' refers to a racial group.<sup>34</sup>

The script left no doubt that the CSI team judged the actions of the parents as morally repugnant. Yet, despite the message that it is wrong to conceive a child as a medical repository for a sibling, a more discrete and compelling message was communicated to viewers in a forceful statement articulated by the (white) mother. They were not cruel parents, she argued, and defended their actions by pointing to the absence of 'mixed-race' donors who might have helped to save the life of their son. Viewed from this perspective, they faced a serious dilemma. However abhorrent, the script offered viewers a narrative in which the medical challenges facing a 'mixed-race' couple are different than those of 'same-race' couples.

This particular CSI episode dramatizes the success that proponents of an official 'multiracial' census category have had. The most assertive of these organizations, Project Race, was established in 1991 by Susan Graham, a white woman married to a black man, who did not want to list her children as either 'white' or 'black'. Through aggressive campaigning, recruitment and outreach programmes, Project Race was propelled under Graham's leadership into the centre of debates over racial categories listed on the US Census. Although a multiracial category was not included in the 2000 Census, many institutions and other agencies that collect demographic information now do include either a 'mixed-race' category, an opportunity to mark more than one racial category or an 'other' category, indicating that

34 The CSI script reinforces the misuse of 'Hispanic' as a racial term. In fact, as the only official 'ethnic' category on the US Census, 'Latino/Hispanic' registers the population of Mexico, Central and South America. The official, though informal, recognition of the diverse mix of African, indigenous and European ancestries in Spanish-speaking countries disappears when 'Latino/Hispanic' is treated as a generic race category. Moreover, as David Hayes-Bautista points out in relation to academic research, definitional differences and confusion of terminology have led to inconsistent or conflicting research methodologies and conclusions. As a political issue, this confusion has significant consequences for policy, especially in terms of access to benefits guaranteed under remedial civil rights legislation. David E. Hayes-Bautista, 'Identifying "Hispanic" populations: the influence of research methodology upon public policy', *American Journal of Public Health*, vol. 70, no. 4, April 1980, 353–6.

more than one racial category applies to the registering individual.<sup>35</sup> Project Race, according to its mission statement, 'advocates for multiracial children and adults through education, community awareness and legislation. Our main goal is for a multiracial classification on all school, employment, state, federal, local, census and medical forms requiring racial data.'<sup>36</sup>

The Project Race website identifies 'urgent medical concerns' as the most compelling factor in its crusade for justice, listing a series of 'facts' that purportedly identify special issues facing 'multiracial children', including their omission from health statistics and pharmaceutical clinical trials. Its most noteworthy claim, that 'there is a shortage of bone marrow donors for the multiracial population',<sup>37</sup> is reiterated in the *CSI* episode that, in turn, disseminates to a broad audience the fallacious claim that 'multiracial' people are an identifiable and distinct group that can, and should, be distinguished from other 'racial groups'.<sup>38</sup> Project Race was followed by the establishment of other organizations for 'mixed-raced persons', one of which, the MAVIN Foundation, also supports the claim that 'multiracial people have great difficulty finding marrow or blood stem cell matches to cure potentially fatal diseases like leukemia'.<sup>39</sup> It initiated the MatchMaker Bone Marrow Project, which 'is the only national program dedicated to mixed race bone marrow donor recruitment and education'.<sup>40</sup> The problem is that the notion of 'mixed-race persons' is necessarily based on prior racialization. These identity-based organizations do not instruct the public about a changing *sociological* dynamic but rather reinforce the premise that race is biological: the presumption of discrete racial groups enables *amalgamation* and *admixture*. This differentiation of population groups on the basis of biological criteria conveniently, and sometimes deliberately, ignores the unstable history of the race concept and the evolution of race as an ideology.

35 Cautioning that conclusions based on current methods of collecting race/ethnicity data are inconsistent because of a 'lack of consensus and inadequate definitions for terminology; and misclassification or miscounting of patients', two researchers argue for a more detailed set of categories, including 'mixed-heritage', an example of the persistent effort to improve rather than invalidate racial taxonomies. P. Davis and L. Rubin, 'Obstruction of valid race/ethnicity data acquisition by current data collection instruments', *Methods of Information in Medicine*, vol. 37, no. 2, June 1998, 188–91.

36 'Mission statement', available on the Project Race website at [www.projectrace.com/aboutprojectrace/](http://www.projectrace.com/aboutprojectrace/) (viewed 11 September 2006).

37 'The health status of multiracial Americans fact sheet', available on the Project Race website at [www.projectrace.com/urgentmedicalconcern/](http://www.projectrace.com/urgentmedicalconcern/) (viewed 11 September 2006).

38 Davis and Rubin, 'Obstruction of valid race/ethnicity data acquisition by current data collection instruments'.

39 Homepage of MatchMaker, a MAVIN project, at [www.mavin.net/Matchmaker.html](http://www.mavin.net/Matchmaker.html) (viewed 29 July 2006).

40 *Ibid.* MatchMaker was founded in 2001 by two interns to address the 'chronic shortage of multiracial donors on the NMDP [National Marrow Donor Program]'.

The pervasive reiteration of 'race' as a noun—an entity that can be isolated and measured as an object of study—obfuscates the role of racism in shaping experiences that give race its salient visceral and cognitive potency. Advocates of a multiracial category, as well as media references to multi-racial people, consistently disregard, and persistently omit, the oft-repeated qualifications, which are carefully interspersed throughout the Office of Management and Budget (OMB) policy directive that clarifies the race categories included on the federal Census document (as well as how the data are to be tabulated and used). Given the considerable amount of misinformation that circulates in the public domain as well as continuing demands to increase the number of categories on the next Census, it is appropriate to quote directly from this document:

Development of the data standards [on race and ethnicity] stemmed in large measure from new responsibilities to enforce civil rights laws. Data were needed to monitor equal access in housing, education, employment, and other areas, for populations that historically had experienced discrimination and differential treatment because of their race or ethnicity. The standards are used not only in decennial census (which provides the data for the 'denominator' for many measures), but also in household surveys, on administrative forms (e.g., school registration and mortgage lending applications), and in medical and other research. *The categories represent a social-political construct designed for collecting data on the race and ethnicity of broad population groups in this country, and are not anthropologically or scientifically based.*<sup>41</sup>

It is certainly true that this passage precedes a statement that the categories 'should not be interpreted as being *primarily biological or genetic* in reference' (emphasis added), which seems to contradict the earlier acknowledgment that they are 'a social-political construct'. Furthermore, the following comment that 'race and ethnicity may be thought of in terms of social and cultural characteristics as well as ancestry' also suggests that race categories overlap genealogy (ancestry) and genes (biology). Does the contradiction indicate uncertainty within OMB over the relationship between 'race' as a social construct and 'race' as a biological phenomenon? Or is this a misleading over-interpretation that deflects attention from the insistence that the categories intentionally register the legacy of distinctions within populations residing in the United States that have been subject to adverse differentiation and discrimination?

41 US Census Bureau, Office of Management and Budget, 'Revisions to the standards for the classifications of federal data on race and ethnicity', 30 October 1997 (last modified 2 November 2000), available at [www.census.gov/population/www/socdemo/race/Ombdir15.html](http://www.census.gov/population/www/socdemo/race/Ombdir15.html) (viewed 29 July 2006) (emphasis added).

## Race and grammar

'Race' is sensible only as a predicate, an action verb that requires an agent and intention. A person, persons or policies drafted by persons 'race' individuals and groups. 'Racing' produces the social fact that informs experience. Consequently, when 'racing' is embedded in the fabric of everyday life, it is normalized and functions as an ideology (common sense). 'Racing' under these circumstances is durable as part of the *habitus*, a predisposition that does not require conscious thought.<sup>42</sup> In its more popular form, however, 'race' is deployed as a noun and presumes fundamental physiological differences between groups of people. Arguments over whether race is 'real' hinge on whether it is understood as an action verb or a self-evident noun. When 'race' is used as a verb, racism insinuates itself into discussions whereas, when expressed as a noun, racism escapes attention and therefore can be ignored.

Let me be clear: thinking difference, usefully conceptualized by means of the philosophical paradigm of Self and Other, is not inherently antagonistic and, therefore, the observation of markers that differentiate one person from another is, in principle, benign. In contrast, thinking in terms of 'race-based' differences is learned and informed by a discriminating distinction whose origins can be traced to a specific era and set of events. This can best be appreciated by recalling a pivotal moment in the history of bondage in the United States. In 1662 the colony of Virginia passed its first statute on the question of status and 'the Negro', and the language is particularly relevant:

Whereas some doubts have arisen whether children got by an Englishman upon a negro woman should be slave or free. Be it therefore enacted and declared by this present grand assembly, that all children borne in this country shall be held bond or free only according to the condition of the mother.<sup>43</sup>

It is clear that the statute was passed because there was a problem with English men having sexual relations with women of African descent. Since these were the only women indentured for life, there was no reason to include Englishwomen in the statute although ambiguity was removed by qualifying 'woman' with the adjective 'negro'. The catalyst behind this statute was neither concern about sex across the colour line nor about sex between free persons and the enslaved. Instead, the legislators were motivated by concerns about property, not propriety.

42 Pierre Bourdieu, *Language and Symbolic Power*, ed. John B. Thompson, trans. from the French by Gino Raymond and Matthew Adamson (Cambridge, MA: Harvard University Press 1991).

43 A. Leon Higgenbotham, Jr., *In the Matter of Color: Race and the American Legal Process: The Colonial Period* (Oxford: Oxford University Press 1980), 44.

Legislative intervention into the private sphere of heterosexual relations explicitly addressed the consequences of impregnating slave women who gave birth. In a society in which enslaved human beings were possessions, codification of property rights was both reasonable and logical. From a seventeenth-century perspective, distinguishing between free and slave in the English colonies was an economic problem that had to be definitively resolved. Reframed as a legal problem, it was necessary to reverse English laws of inheritance that were determined by paternal descent, and legislate maternal descent as the criterion determining the status of bondage and freedom. This revision was expressly designed to protect slave-owners' property. It is therefore noteworthy that the legislators who crafted the statute did not raise or address the question of whether the child would be a 'negro' or 'English'. Such finer distinctions required the intervention of scientific racism. As long as slavery was part of a worldview that took inequality and hierarchy for granted, there was no reason for a racial ideology.<sup>44</sup> Only when freedom became a doctrine and human perfectibility became a philosophical postulate was an explanation for slavery required. In the United States the association of permanent servitude—slavery—and 'Negroes' cemented the presumption of a relation between colour and physiology.<sup>45</sup>

The history of racial theory is crucial and needs to be incorporated in undergraduate introductory courses in general, and the sciences in particular, if students are to grasp the profound connection between 'race', 'ethnicity' and 'culture' as concepts that are neither neutral nor innocent. Racial theories began in the academy in a discourse literally invented by anthropologists, linguists, philosophers and members of the medical profession at the same time that professionalization of the sciences was taking place. The data they assembled and disseminated provided an essential supplement to prejudice and were thus an important basis for formulating, rationalizing and enacting government policies and legislative decisions. Furthermore, racial classifications evolved within two areas of study: physiology and language.

44 On predominantly servant immigration from Europe, comprised of convicts and indentured servants, and their visibility within the colonies, see Aaron S. Fogleman, 'From slaves, convicts, and servants to free passengers: the transformation of immigration in the era of the American Revolution', *Journal of American History*, vol. 85, no. 1, June 1998, 43–76.

45 Certainty of the relation between colour and status was disrupted in the years before the Civil War when an increasing presence of white-skinned slaves who looked like their owners (and thus revealed paternity) testified to discrepancies in which visible markers might not be readily apparent. Note as well W. E. B. Du Bois's disparaging remark: 'The rape which your gentlemen have done against helpless black women in defiance of your own laws is written on the foreheads of two millions of mulattoes and written in ineffaceable blood' (quoted in Myrdal, *An American Dilemma*, 1187n14). See also Kaplan, 'The miscegenation issue in the election of 1864'.

Barbara Fields describes the intervention of science, biology and physical anthropology as ‘the heavy artillery’ that settled the conflict between the ideologies of equality (philosophical and religious) and racism.<sup>46</sup> Interest in understanding the origins and causes of superiority and inferiority prescribed scientific enquiry and predetermined conclusions of research that identified racial types and then examined the relationship between their physiological and mental characteristics. Robert Young defines the ideology of race as ‘a semiotic system in the guise of ethnology, the science of races’. In his excellent book *Colonial Desire: Hybridity in Theory, Culture and Race*, Young highlights the 1820s, when linkages between European languages and Sanskrit elevated Asians to proximity with Caucasians and simultaneously opposed European languages to Semitic ones. This ‘transformed the mere taxonomy of ethnography’ by means of a

genetic emphasis on the metaphor of ‘families’ of languages and the oft charted language ‘trees’ ... [These] were to determine the whole basis of phylogenetic racial theories of conquest, absorption and decline—designed to deny the more obvious possibilities of mixture, fusion and creolization.<sup>47</sup>

In other words: we have inherited a set of racial theories that articulated an anxious need to rationalize separation even as interaction and mixing were producing new people that defied and refuted the theories under construction. From this point, as Young astutely demonstrates, we are confronted by a complicated and contradictory history in which physical racial characteristics are allied to language families that in turn condition the emergence of a cultural system for classification and differentiation.<sup>48</sup>

## Unlearning race

How do we undo race-thinking? The power of expertise and authority manifests itself in peer-reviewed academic journals that have a prominent stature in their discipline. This power reaches beyond academic circles and percolates into the public arena through the media whose reports discretely validate research conclusions as scientific even when these are subject to

46 ‘Presentation given by historian Barbara J. Fields at a “school” for the producers of RACE’, March 2001, available under ‘History’ in ‘Background Readings’ on the website for the PBS series *Race—The Power of An Illusion* at [www.pbs.org/race/000\\_General/000\\_00-Home.htm](http://www.pbs.org/race/000_General/000_00-Home.htm) (viewed 11 September 2006).

47 Young, *Colonial Desire*, 65.

48 The ubiquitous connection between culture and colour is pronounced when the social vocabulary of race and socially defined racial markers of identity coincide and a social formation is identified and defined as ‘cultural’. There is no better example, at least in the United States, to the way reference to ‘culture’ reinscribes boundaries than the essentialist ideas of what constitutes ‘blackness’ and ‘whiteness’.

debate, as in the case of BiDiI. Genetic researchers articulate their hypotheses in scientific language that has the semblance of unemotional authority. But as historians of science have elaborated, science as a practice and a discipline is neither objective nor neutral. Scientists are not expected to foreground conscientiously the cultural contexts within which their scientific curiosity, observations and hypotheses take shape when they present their findings and interpretations.<sup>49</sup>

The presumption of education, credentials and publication seems to preclude media analysis of the production of knowledge, the process of making information. Yet the relationship between researchers as practitioners, the pharmaceutical companies as profit-making institutions and the Food and Drug Administration's role in prescriptive policymaking is noteworthy. This three-way relationship has come under public scrutiny when abstract epistemological questions coincide with practical and politically sensitive policies. Critics who denounced the credibility of marketing a race-based drug pointed to the profit that NitroMed stood to gain by targeting African Americans as consumers, particularly given measurable racial inequality within the health care system that has underserved this population. While identifying Blacks as a social group whose experiences with varying degrees of racial discrimination—perceived and tangible—has merit for studying the physiological reactions to the cumulative effect of living in the United States, conflating genetics and social race facetiously ignores racism while overplaying the finding that 'Blacks may produce less nitric oxide'.<sup>50</sup>

Four centuries of racism in the United States, propelled by an explicit strategy of maintaining white privilege and protecting white interests, has resulted in the naturalization of the principle of racial classifications constructed and modified within the unfolding field of anthropology. Although the specific criteria invoked to differentiate between classifications have changed over time, this principle of distinctions has retained its power. There can be little disagreement that health is always a major concern and that, therefore, research on health-related issues is, quite obviously, both indispensable and valuable. It is also understandable that the investigation of various medical problems would consider patterns within and between population groups in order to identify causes that would, in turn, enable remedial treatment. In other words, health-related research is motivated by very specific objectives and *desiderata*. What is not always obvious, however,

49 Paul Root Wolpe, 'If I am only my genes, what am I? Genetic essentialism and a Jewish response', *Kennedy Institute of Ethics Journal*, vol. 7, no. 3, September 1997, 213–30.

50 Kendra Lee, 'New drug may get to the heart of the problem', *The Crisis*, vol. 112, no. 1, January/February 2005, 12; David Rotman, 'Race and medicine', *Technology Review*, vol. 108, no. 4, April 2005, 60–5; D. R. Rutledge, Lavoisier Cardozo and Joel Steinberg, 'Racial differences in drug response: isoproterenol effects on heart rate in healthy males', *Pharmaceutical Research*, vol. 6, no. 2, February 1989, 182–5.

is the extent to which researchers import their social and political perspectives into their research. If white researchers are now over-compensating for ignoring Blacks in clinical studies, some black researchers are over-zealous in highlighting Blacks as subjects for research. In both cases, the use of 'race' as an organizing principle is evidence that conceptualizing populations along bogus racial lines persists as a respectable practice.

Using 'racial' as a keyword, an online search for articles in the Medline database for 2004–5 produced over 1,800 titles. Browsing through most of them, an admittedly time-consuming task, I was overwhelmed by comparisons that presumed that populations could be divided by racial groups as well as the apparent consensus among scholars over the composition of these groups. A random selection of articles were written in specialized scientific language appropriate to the field but obscure to the lay reader; it did not take a translator, however, to understand the a priori identification of race as an observable characteristic and to deduce, where it was not specific, that the primary mark of distinction between Whites and Blacks was skin colour.<sup>51</sup> In sum, even where there was a brief discussion of how 'race' was employed in the research, it was explicitly equated with appearance, without reference to the more likely hybrid composition of each population group examined in the respective study, particularly 'African Americans', 'Latinos' and 'Native Americans'. Regardless of how a respondent identifies him/herself, it is troubling that researchers assume, rather than question, the utility of using 'race' as a variable for physiological comparisons between populations.

As long as the fiction of race that has so influenced the discipline of anthropology permeates scientific research, race-thinking will be reproduced, naturalized in conversation and reinscribed through repetition in laboratory reports, conference papers, professional journals and in the classroom. Precisely because race is referenced as something physiological and then used as to compare groups raced as distinct with regard to such medical phenomena as iron deficiency, colorectal cancer, dementia and pulse pressure, it warrants attention and refutation whether or not one possesses the credentials that guarantee an audience.

What is needed is a reconceptualization of populations, and comparative studies that focus attention on more significant physiological differences determined by body chemistry, such as lactose tolerance or blood groups. Even if one grants latitude to analyses that use racial categories, the mandate

51 Like the current socially relevant categories on the US Census, 'African American' is used interchangeably with 'Black', 'Caucasian' is synonymous with 'White', and the geographical label of 'Asian' relies on the assumption of regional distinction as well as appearance. While some authors note in passing that racial categories are problematic, they nevertheless identify race as a credible factor to be examined in relation to other physiological and environmental variables. The most undefined and ambiguous category is 'Latino', a late twentieth-century renaming of 'Hispanic'; see Hayes-Bautista, 'Identifying "Hispanic" populations'.

should be that researchers explain both the use of such categories in the research as social—not biological—constructs as well as the fact that the categories used by researchers and patients inherently reflect an experienced social distinction. In contrast, differentiating populations on a mythical basis of race—even, and especially, when ‘ethnicity’ is imported as a more polite substitute for ‘race’, which only returns through the back door—registers belief in an ‘essence’ that is apparent in skin, hair texture and facial features.<sup>52</sup>

As a last example of the *medicalization* of race and the dissemination of misleading information to the public, consider advertisements and over-the-counter medications for osteoporosis in which labels identify ‘Caucasian and Asian women’ as particularly susceptible to bone fragility. The term ‘Caucasian’, coined by naturalist Johannes Blumenbach at the end of the eighteenth century (*Varietas Caucasia*), referred to the people living in the Caucasus region. When I introduce a new class of students to this history each semester, they are collectively taken aback to learn that ‘Caucasian’ became, in American English, a generic synonym for ‘white’ relatively recently. This detail has received considerable attention in articles and books about race and, though it is easily found in a quick Internet search, it nevertheless always strikes students as new information primarily because it does not circulate widely in the public sphere. This synonymy was predicated on the science of race that helped popularize ‘Caucasian’ as a generic term for white-skinned Europeans. ‘Caucasian’, as a racial type and category, was a necessary condition for prompting a shift in *conceptualizing* degrees of whiteness to a *perception* of physiological similarity. But, if thinking about skin colour as evidence of an innate and immutable sameness was necessary, it was an insufficient condition for entrenching race-based distinctions in the popular collective consciousness.<sup>53</sup> For racial classification

52 Consider one recent abstract for a report on the outcome of a research project that not only conflates the terms ‘ethnicity’ and ‘race’ but includes ‘Hispanic’ as one of four racial categories: ‘Although osteoporosis is a worldwide health problem, there are many differences in *ethnic* groups regarding disease morbidity and drug treatment efficacy. This review analyzed clinical response data of two major osteoporotic treatments (vitamin D and estrogens) regarding *four major human races (Asian, Caucasian, Hispanic and Negroid)*’; F. Massart, ‘Human races and pharmacogenomics of effective bone treatments’, *Gynecol Endocrinol*, vol. 20, no. 1, January 2005, 36–44 (emphasis added).

53 See Ian Haney-López, *White by Law: The Legal Construction of Race* (New York: New York University Press 1996) on the terminological confusion that figured in two 1922 US Supreme Court appeal decisions for naturalization. Takao Ozawa, a Japanese applicant, successfully appealed, on scientific grounds, that he had white skin but was rejected as not being ‘Caucasian’ and therefore not ‘white’. Three months later, Bhagat Singh Thind, a Hindu Asian petitioned for citizenship and, taking his cue from the earlier decision, argued that, according to science, Hindu Indians were of the ‘Aryan’ or ‘Caucasian’ race and, therefore, ‘white’. The same judge who relied on science in his ruling in the Ozawa case, rejected Thind’s claim on the basis of common sense.

to fossilize in the public consciousness as meaningful distinctions that appear *natural*, laws were needed to buttress economic and political policies of differentiation. These regulatory measures prescribed and were reinforced by everyday social norms and practices that cumulatively served to define experience. Accordingly, experience, a visceral and material way of being in the world, manifested itself as evidence for the credibility of racial distinction based on biological differences.

Given this history, one has to wonder about the cultural consensus that has come to *imagine* and *market* images that, until very recently, have excluded black and brown women from considerations of osteoporosis, a medical disease that affects post-menopausal women. Do black and brown women not suffer from osteoporosis? Or has the foundational premise of race-based categories, with *external* physiological features as the gross criteria for distinction, already prescribed answers to research questions that confirm the criteria used for race-based distinctions at the outset of the investigation? Fortunately, the Osteoporosis Center of Atlanta decided to study African-American women, a group that is 'underdiagnosed and undertreated', concluding that 'African-American and white women share many of the same risk factors for osteoporosis'.<sup>54</sup> Unfortunately, there are no criteria for distinguishing 'African-American' and 'white' women, who are compared as discrete *racial* units.

### Genetic signature and the biologization of identity

Research on the Lemba, a group in southern Africa whose claims to Jewishness made headlines when DNA tests on their priests correlated with DNA found in Jews who were identified as *kohanim* (priests), is the most salient example of spurious claims for the utility of the race concept. The phenomenon of Jewish collective identity—despite expulsion and exile, persecution and intermarriage—refuses social science categories and taxonomy. Jews are an efficacious proxy and model for all social groups discerned as *racialized objects* by the scientific gaze. Identifying individuals as 'Jews', on the basis of purported biological criteria (DNA), is always—and inherently—a sociological process in which biology provides false evidence of identity.<sup>55</sup>

According to normative rabbinical law, descent and conversion are two routes to being counted as Jewish. This rebuts claims that Jewish ancestry is revealed in a tidy *genetic signature*, a metaphor in scientific texts that anchors culturally grounded social formations to a biological foundation. When

54 Grattan C. Woodson, 'Risk factors for osteoporosis in postmenopausal African-American women', *Current Medical Research and Opinion*, vol. 20, no. 10, October 2004, 1681–7 (1686).

55 Sander L. Gilman, *The Jew's Body* (New York and London: Routledge 1991).

articles about genes and Jewish identity deploy this literary trope, the correlation between the biological existence and the social existence of Jews is made to seem natural, obfuscating the history of Jewish dispersal and diversity. Against the hope of black Americans that DNA will fill the gaps in family histories caused by slavery,<sup>56</sup> what purpose is served by efforts to isolate a *Jewish* gene, particularly when it is nicknamed the 'Cohen gene'?<sup>57</sup>

Despite frequent pronouncements that there are no biological races, the precondition for conceptualizing 'a Cohen gene' involves the preliminary assumption that evidence for a common ancestry can be found.<sup>58</sup> This presupposition, that the biblical Hebrews were once a distinct and discrete group, ignores the explicit ways in which the story of creating a collective identity is woven through Jewish scripture. From both a political and a sociological perspective, the unexpected 'discovery' of a priestly gene fortuitously lent credibility to the oral traditions of geographically disparate groups whose claims to Jewish identity had been ignored or dismissed as preposterous. In fact, discovery that the Y chromosome may be evidence of Jewish ancestry reignited interest in the mystery of the Lost Tribes, and focused attention on 'exotic' communities who claimed and desired a connection with world Jewry.<sup>59</sup>

The premise of an identifiable Jewish gene, however, is not self-evident although it offers biological credibility to myths that enable collective identities. In other words, communities grounded in a shared (even when contested) identity are above all products of sociology, not of biology. For this reason, typologies framing genetic studies of male descendants of Moses and Aaron should not be used as evidence for the continuity of stable communities. Moreover, given the rapid evolution of biotechnology,

56 Writing in the *New York Times* last summer, Amy Harmon reported: 'Some African-Americans, more interested in searching out recent relatives who in many cases can be dependably identified with a DNA match, are asking whites whom they have long suspected are cousins to take a DNA test. And in a genetic bingo game that is delivering increasing returns as people of all ethnicities engage in DNA genealogy, some are typing their results into public databases on the Internet and finding a match that no paper trail would have revealed'. Amy Harmon, 'Blacks pin hope on DNA to fill slavery's gaps in family trees', *New York Times*, 25 July 2005.

57 The 'Cohen modal haplotype' (CMH) was 'discovered' among some members of the Buba, the Lemba's senior clan somewhat analogous to the *kohen* (or Cohen) priestly clan. The sensational news of a genetic connection to Jewish ancestry was augmented as much by the fact that the Lemba are black Africans as by the lack of any reference to them in literature in any field. Mark G. Thomas, Tudor Parfitt, Deborah A. Weiss, Karl Skorecki, James F. Wilson, Magdel le Roux, Neil Bradman and David B. Goldstein, 'Y chromosomes traveling south: the Cohen modal haplotype and the origins of the Lemba—the "black Jews of Southern Africa"', *American Journal of Human Genetics*, vol. 66, no. 2, February 2000, 674–86.

58 Avshalom Zoosmann-Diskin, 'Are today's Jewish priests descended from the old ones?', *Homo: Journal of Comparative Human Biology*, vol. 51, nos 2–3, 2000, 156–62.

59 Hillel Halkin, 'Wandering Jews—and their genes', *Commentary*, vol. 110, no. 2, September 2000, 54–61.

researchers who increase their pool of subjects may find additional groups of men—who neither identify as nor are identified as Jewish or a *kohen*—who test positive for the same Y chromosome that currently appears among a select, self- and otherwise identified group with priestly lineages.<sup>60</sup>

The impulse to find a shared Y chromosome indicating a direct patrilineal line to Moses and Aaron seems to have inhibited less sensational investigations into the relationship between an apparent genetic signature and demographic movement in general. Issues raised by DNA sequencing invite compelling discussions about the social world in which political questions and policies occupy a central role in shaping identities and life experiences. Despite disclaimers to the contrary, announcements that particular DNA sequences indicate genetic correlation between various population groups appeal to the notion of biological race. The presumption of particular ancestral connections orients how DNA is invoked in discussions of collective identity, in which the vocabulary of genes displaces earlier metaphors of blood. The politicized relationship between science and identity is explicit when genetic research supplements, and insures a surrogate role for, cultural anthropological and archaeological evidence. For those with contested claims to Jewish identity, data presented in the specialized language of science can be authoritatively introduced as evidence for their connection with, and perhaps membership in, the Jewish diaspora, despite their distance from the geographical scope of rabbinical authorities. But if science can be invoked as a guarantor of identities, it can equally intercede to deny them.

The presumption that scientific conclusions are based on objective facts obscures the less rigorous process by which cultural interpretations of selective data are (re)presented as fact, whether it is in order to prove the utility of 'race' as an organizing concept or to argue for 'ethnicity' as a more

60 Judiciously, in this context, the authority of science was invoked to silence sceptics of the Lemba's claims to Jewish ancestry although it also invited speculation on whether the Lemba qualified for immediate Israeli citizenship under the Law of Return. Carl Elliott and Paul Brodwin, 'Identity and genetic ancestry tracing', *British Medical Journal*, vol. 325, 21 December 2002, 1469–71; Paul Brodwin, 'Genetics, identity and the anthropology of essentialism', *Anthropological Quarterly*, vol. 75, no. 2, Spring 2002, 323–30. Most significantly, the manner in which the issue of the Lemba was articulated introduced a political dimension that necessarily, given the politics of race and racism in the United States, insinuated and instantiated a racial inflection, such as in newspaper headlines like 'DNA Backs South African Tribe's Tradition of Early Descent from the Jews', 'The Black Jews of Southern Africa' and 'Jewish Roots in Africa'. Perhaps because the information was less sensational, the popular media were silent on the absence of evidence for a *kohen* genetic variant among the Jews of Ethiopia. M. F. Hammer, A. J. Redd, E. T. Wood, M. R. Bonner, H. Jarjanazi, T. Karafet, S. Santachiara-Benerecetti, A. Oppenheim, M. A. Jobling, T. Jenkins, H. Ostrer and B. Bonn -Tamir, 'Jewish and Middle Eastern non-Jewish populations share a common pool of Y-chromosome biallelic haplotypes', *Proceedings of the National Academy of Sciences*, vol. 97, no. 12, 6 June 2000, 6769–74.

efficient one. As long as human beings are categorized, classified or grouped according to preconceived ideas of similarity, racialized truths will continue to be reinscribed in research projects. In this context, the language of *genetic signature* (as in the 'CMH') is politically provocative, and scientists need to be especially conscious of the metaphors they invent to articulate the results of their research and should take serious note of Nancy Stepan's studies on the central role metaphors play in scientific theory, including the analogies they mediate.<sup>61</sup> In sum, the deliberate attempt to identify a shared chromosome among different populations is not an innocent pursuit that can be interpreted outside the politics of identity.<sup>62</sup> For this reason, academics and lay people—those with and without expertise in genetic studies—need to be vigilant in challenging the incorporation of a discourse of genes into the sociological discourse of group identities.

### Letting go of race

Scientists who look to the human body to reveal itself seem unable or unwilling to relinquish the promise of guarantees that affirm essential differences as an explanation for perceived variations distinguishing communities and individuals. The hyper-visibility of the physical body (skin colour, hair texture, facial features) still attracts debate over the merit of traditional racial categories as a point of departure for research on populations. This epidermal surface, distinguishing social groups, is invested with meanings and experiences that reinforce ideas of race based on appearance.

Public pronouncements disseminating the fact that 'race' is a bogus concept are refuted by reports in science journals, forensic commentaries, newspaper headlines and pharmaceutical advertisements alleging genetic predispositions of named population groups distinguished by physical appearance and geography. Bioethicists and geneticists have now joined anthropologists, and, notwithstanding protestations to the contrary, the points of departure in their complimentary and complementary research projects prescribe outcomes that reinstate racial boundaries in thinking about ancestry, genealogy and identity.

The tendency to cluster people in familiar ways repackages racial differences under the label of variation. Finding new names for old

61 Nancy Leys Stepan, 'Race and gender: the role of analogy in science', in Sandra Harding (ed.), *The 'Racial' Economy of Science: Toward A Democratic Future* (Bloomington: Indiana University Press 1993), 359–76.

62 Precisely for this reason, genes are irrelevant to *religious* deliberations on the question of who is a Jew although they may be invoked in appeals for state recognition and immediate Israeli citizenship under the Law of Return.

configurations does not allow for radically different ways to cluster populations as subjects of study. I am not arguing against genetic studies *per se*, nor do I deny that deciphering genetic patterns may constructively contribute to medical research devoted to the eradication of medical disorders, disease and chronic illnesses. But it cannot be over-emphasized that the social categories that scientists have been using are permeable and flexible. While they are instructive when examining the socio-political ways in which people identify themselves and are identified, a radical cultural shift is needed.

As the sociologist Paul Gilroy observes: 'Whether it is articulated in the more specialized tongues of biological science and pseudo-science, or in a vernacular idiom of culture and common sense, the term "race" conjures up a peculiarly resistant variety of natural difference.'<sup>63</sup> We need to ask what difference does difference make? What cultural predispositions inform scholarly research that takes human variability as its focal point? And we need accountability on the part of both researchers and their funding agencies, who should address the question of why it is important to find a genetic code. For whom is the enormous investment in time, energy and capital of significance? Most importantly, why does determining biological difference take priority over variations in the quality of life among humankind? Given the racial context that frames genetic research by default—if not intent—Gilroy's compelling appeal for liberation from 'all racializing and raciological thought, from racialized seeing, racialized thinking and racialized thinking about thinking' as 'the only ethical response to the conspicuous wrongs that raciologies continue to solicit and sanction' needs to be broadcast far and wide and heeded throughout the field(s) of bio-science.<sup>64</sup>

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63 Paul Gilroy, *Against Race: Imagining Political Culture beyond the Color Line* (Cambridge, MA: Belknap Press of the Harvard University Press 2000), 29.

64 *Ibid.*, 40–1.

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