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Essay review

Solving the riddle of race

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Race unmasked: Biology and race in the twentieth century, Michael Yudell. Columbia University Press, New York (2014). pp. 304 hardcover, Price $40 ISBN: 9780231168748

Constructing race: The science of bodies and cultures in American anthropology, Tracy Teslow. Cambridge University Press, Cambridge (2016). pp. 414 paperback, Price $29.99 ISBN: 9781316603383

The myth of race: The troubling persistence of an unscientific idea, Robert Wald Sussman. Harvard University Press, Cambridge MA (2016). pp. 384 paperback, Price $19.95 • £14.95 • €18.00 ISBN 9780674660038

Racecraft: The soul of inequality in American life, Barbara J. Fields, Karen Fields. Verso, London (2014). pp. 310 paperback, Price $18.95 ISBN: 9781781683132

Making sense of race is a highly interdisciplinary undertaking. There are scientific issues, with diverse sets of data to be analyzed; and humanistic issues, with concepts like justice, which are not accessible scientifically. It involves reconciling the creation and establishment of identities to whatever patterns may inhere in the gene pool. It involves reconciling people's visible looks to invisible allele frequencies. It involves reconciling race (for which the US census asks) to ethnicity (for which the British census asks). It involves confronting kinship and ancestry as partly biological properties, and as partly arbitrary conventions that contradict that very biology. And it involves doing all this on a complex modern social and political landscape of colonialism, genocide, the conventions of popular science writing, the self-aggrandizing mythology of the Human Genome Project, terrorism, refugees, and the continuing battles for human rights.

The story, consequently, tends to be told in bits and pieces.

The science alone incorporates issues of taxonomic theory, bioinformatics, observations, measurements, the preservation and manipulation of biological substances in defiance of taboos, correlated environmental and geographic patterns, and the reconstruction of history. It involves identifying and challenging distinct but intertwined fallacies: hereditarian (Nelkin and Lindee, 1995) and classificatory (Goodman et al., 2012). Confusing the scientific issue is the moral issue of evil science – in this case scientific racism, that is to say, the production of false scientific information and spurious arguments intended to rationalize social inequalities. This is an issue that the scientific community has only had to come to grips with seriously since the end of World War II. All four books under review mention Carleton Coon (1962), a prominent scholar who secretly colluded with the segregationists, while publishing an account of human evolution in which whites evolved into *Homo sapiens* 200,000 years before blacks, and who posed a moral, social, and intellectual problem for his colleagues (Jackson, 2005). As scientific racism still does. A generation after Carleton Coon, there was *The Bell Curve* (Herrnstein and Murray, 1994), and a generation after *The Bell Curve*, there was *A Troublesome Inheritance* (Wade, 2014). But each generation, the scientific community's reaction intensifies. And if scientific progress can be measured by the community's reaction to scientific racism, there is reason for optimism: Reviews of *A Troublesome Inheritance* were rapid and harsh, and *The New York Times* published a letter signed by nearly 150 geneticists repudiating *A Troublesome Inheritance*'s abuse of their data. Indeed the most prominent favorable notices came from avowed white supremacists and from a co-author of *The Bell Curve* (Marks, 2014).

The four books reviewed here go exceedingly well together. They comprise a very complementary set of intellectual endeavors, which together help to assemble the complex puzzle of race. In a sense, each explores a powerful simile, and when juxtaposed, the four figures of speech amplified by these books tell a coherent story of race.

1. Race is like zoological subspecies

The first proposition involves the relation of race to the science of zoology. Racism – that is to say, group animosities, fueled by economic or political power differentials – certainly pre-date the formalization of race as a biological category in the eighteenth century. The ideology of race – that the human species is naturally divisible into a few fairly discrete kinds, each with distinctive properties – emerged over the course of the eighteenth century, first as an informal lineage or hereditary strain, then as formal subspecies (Bethencourt, 2013; Muller-Wille & Rheinberger, 2012).

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The idea was unusual, because scholars at least since Herodotus and Pliny had divided peoples up locally, not continentally. The stimulus for seeing the human species differently seems to have been the result of a convergence of political, e.g. empire-building, and economic e.g., slavery, factors. We generally assign credit for the suggestion that people and geographical landmasses can be co-classified to a French physician and traveler named François Bernier. The popularity of race as a scholarly idea in the following century is due largely to the prestige of the biologist Carl Linnaeus of Uppsala (Koerner, 1999), and philosopher Immanuel Kant of Königsberg (Figal, 2010).

Linnaeus made classification the foundation of the early modern botanical and zoological enterprises. "God created," went the contemporary meme, "but Linnaeus arranged." In the first edition of his *System of Nature* (1735) he took the bold step of classifying humans alongside monkeys in a group he called "Anthropomorpha". Within the genus *Homo*, Linnaeus listed four species: *Homo Europeanus albescens* (whitish Europeans), *Americanus rubescens* (reddish Americans), *Asiaticus fuscus* (dark Asians), and *Africanus nigrescens* (blackish Africans). No "sapiens" here; it would take Linnaeus over two decades to formalize the species concept, and to relegate all living people to a single one, *H. sapiens*. He would also color his formal human subspecies in starker shades: white, red, yellow, and black. Kant would remain less interested in zoological questions, and rather more interested in the stable transmission of different human qualities.

Over the course of the nineteenth century, the assumption that distinct peoples have distinctly different natures was hardly questioned until the development of a scientific theory of culture by E. B. Tylor, (1871) of Oxford, and the "psychic unity of mankind" by Adolf Bastian of Berlin (see Kopping, 1983). But even if the differences of nature might be exaggerated a bit, certainly there seemed to be differences of a zoological nature among the peoples of the world, the elaboration of which was a burden that fell upon science.

This is where Yudell's *Race Unmasked* begins, in the twentieth century, with the scientific presumption that there are zoological taxa, presumably subspecies, within the extant species *Homo sapiens*, and that a zoological approach to our species necessitates establishing its taxonomic divisions. On to this landscape, argues Yudell, strode a giant, by the name of Theodosius Dobzhansky, whose work on natural races of animals and whose leadership against scientific racism fundamentally reformed the study of human diversity.

The story of the conjunction between evolutionary theory and racial theory is an important story, and Dobzhansky is certainly an appropriate scientific hero. When the segregationist Carleton Putnam (1961) railed about the anthropologists, Jews, and communists subverting American education, Dobzhansky was the perfect adversary on behalf of the scientific community – as a geneticist, a member of the Russian Orthodox church, and an emigré from the Soviet Union. But back in the 1930s, Dobzhansky was not yet writing about people. He was writing about fruit flies. For the early conjunction of evolutionary and racial theory, one should probably look rather at the influential 1935 book *We Europeans*, which was co-authored by evolutionary biologist Julian Huxley, and which

> demonstrated conclusively that there was no such thing as a 'pure race' anywhere in the world, and that there were no unchanging racial characters, but that the qualities and achievements of each so-called race or ethnic group were determined mainly by environment and cultural history … (Huxley, 1970:216).

After all, there is a fair question in the relevance of zoological expertise at all to a discussion of slavery, genocide, and apartheid. The biologist Huxley found a collaborator in the anthropology community, Alfred Cort Haddon of Cambridge. Dobzhansky's anthropological collaborators would include not only Ashley Montagu, but also Sherwood Washburn, with whom he co-organized the influential 1950 Cold Spring Harbor Symposium on human evolution.

Dobzhansky was also acutely sensitive to the conjunction of science and politics, knowing that, had he not remained in America in the 1920s, he would likely have suffered the same fate as the other Soviet geneticists at the hands of Lysenko and Stalin. Crucially, over the course of the twentieth century, and due in large measure to Dobzhansky's intellectual influence, the races of fruit flies and the races of people came no longer to be seen as corresponding to one another. Human taxonomy came to be seen as pseudo-taxonomy, and the application of zoological systematic principles to the human species as unjustified as the application of principles from quantum electrodynamics or X-ray crystallography (Marks, 1995).

2. Human variation is not like zoological subspecies

One of Dobzhansky's students, who became an activist against scientific racism, is Richard Lewontin. Lewontin's, (1972) genetic study was the first to quantify patterns of diversity in the human gene pool. But although there is a narrative that holds it to be the crucial study that falsifies race, students of human variation had, in fact, been gradually reconceptualizing their subject matter non-taxonomically since World War II. Summarizing the geographic gradients in human characters, for example, biological anthropologist Frank Livingstone had written epigrammatically in 1962, "There are no races, there are only clines."

Early applications of human genetics to human diversity had yielded racial nonsense, to the frustration of students of the human species (e.g., Young, 1928). And with more information from the field and lab, the categories into which people were assorted became increasingly problematic. Tracy Teslow relates a complementary history of science to Yudell's narrative in *Constructing Race*, involving not so much what zoologists said about subspecies, but what the empirical studies of the human species showed. Again taking the twentieth century as a frame, Teslow begins with the racial art sculpted by Malvina Hoffman for the Field Museum in Chicago (Kinkel, 2011). Teslow's theme is not the history of biology, but the history of anthropology, and she follows a central intellectual lineage from Franz Boas through Harry Shapiro (a loyal student of the Harvard physical anthropologist Earnest Hooton, but an intellectual protégé of Boas), Ruth Benedict, and Ashley Montagu.

Gradually, over the course of the twentieth century, anthropologists began to understand that the empirical patterns of difference within the human species did not, in fact, sort out in the taxonomic way they were supposed to (Little and Kennedy, 2010). How did they sort out? There was a lot of culture, and a lot of adaptability – that is to say, biological flexibility. There was also a lot of racism influencing, in both subtle and unsubtle ways, the perception of human differences (Dominguez, 1998). Without the presupposition of races, however, human differences seemed to be patterned in ways that defied racial logic. For the most part, as Lewontin showed, genetic variants are ubiquitous. Most group-to-group variation is distributed as geographical gradients, or clines. There is no "climate of Africa" for Africans to adapt to; most human adaptation is local. Even malaria, to which human populations have adapted genetically in diverse ways over the last few ten thousand

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