The anti-scientific character of “race” as a concept

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As the capitalist media and political establishment whip themselves into a frenzy to promote a racialist view of police violence and of social inequality more broadly, in order to obscure its class basis and divide workers along supposed racial lines, it is important to emphasize the distinction between race as a social construct and race as a biological category.

An article published earlier this year in the prestigious journal *Science*, titled “Taking race out of human genetics,” reviews the “century-long debate about the role of race in science” and demonstrates that the concept of race is not only invalid for the purposes of biological and medical research, but that its use has distinctly negative consequences in those fields, let alone in the larger social context.

To illustrate the evolution of the concept in biology, the authors cite the example of Theodosius Dobzansky, considered by many to be the founder of evolutionary genetics, who for years struggled to employ the category of race in his research only to finally conclude that it had no scientific validity.

In recent years, according to the authors, the scientific study of “race” has tended to move away from earlier, overtly racist attempts to define racial distinctions and, in some cases, “prove” the superiority of one group over another (though such efforts have certainly not ended). Rather, it is now largely focused on efforts to identify genetic variation that may have implications for the treatment of diseases, based on the assumption that different racial groups may have varying reactions to medications or differing risk factor for certain diseases. The persistent use of race as an analytical unit, they argue, tends to obscure more than it reveals.

The authors draw a clear distinction between the genetic inheritance of individuals, on the one hand, and a priori “racial” categories, on the other. They describe the latter as “a pattern-based concept that has led scientists and laypersons alike to draw conclusions about hierarchical organization of humans, which connect an individual to a larger preconceived geographically circumscribed or socially constructed group.” After reviewing the evidence, they conclude that, “the use of biological concepts of race in human genetic research…is problematic at best and harmful at worst.”

Contrary to superficial and highly arbitrary distinctions drawn by those with a racialist perspective, they write, “racial assumptions are not the biological guideposts some believe them to be, as commonly defined racial groups are genetically heterogeneous and lack clear-cut genetic boundaries.”

Race-based conceptions can have serious medical consequences, as when certain diseases are thought to occur predominantly or exclusively in a certain “race,” such as sickle cell anemia or thalassemia, another blood disorder. When such diseases occur in a person of the “wrong” race, correct diagnosis can be delayed or missed altogether. This is not only a medical issue, but also indicative of the lack of scientific validity of the concept of race more generally.

As the authors point out, this is not a problem that can be solved by the development of better genetic testing technology to more accurately determine a person’s race. The “problem” is not in the lack of specificity of the assays, but in the fundamental “messiness” of human genetics.

Following the success of the human genome project in the early 2000s, the growing popularity of individual DNA tests to determine ancestry has resulted in many “surprise” discoveries of complicated genetic pedigrees that do not fit into neat racial categories. This complex reality may not be recognized by the person or family due to the shallow depth of memory or intentional “forgetting” of previous racial/ethnic affiliations in order to accommodate current realities.

Equally if not more important, research on the human genome has demonstrated that, despite apparent variability in such visible traits as skin color, modern humans have a remarkable overall genetic similarity (99.9 percent), as compared to many other species, pointing to the comparatively recent appearance of *Homo sapiens*. Indeed,

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all modern humans derive primarily from a relatively small population that existed, probably in Africa, about 200,000 years ago (a blink of an eye in evolutionary terms), with subsequent minor admixtures from Neanderthals and, perhaps, other early populations (see “The genetic legacy of the Neanderthals”).

One of the critically important results of the DNA sequencing of increasingly large numbers of people is to reinforce the understanding that a person’s genetic makeup is a hodgepodge of differing inheritances rather than a consistent package that retains a basic identity passed down from generation to generation.

Anthropology and archaeology clearly demonstrate that throughout the course of human evolution and, in particular, since the appearance and spread of modern *Homo sapiens* at sometime around 200,000 years ago, accelerating even more with the development of agriculture, beginning around the end of the last Ice Age, human populations have more or less constantly been on the move, resulting in an ever-changing mosaic of biology, language, and culture. This “churning,” if you will, makes a mockery of any conception of “racial purity” or, for that matter, unchanging cultural identity.

History abounds with examples of migrations and intermixing of peoples formerly living in disparate locations. These include (to name but a few):

· The dispersal of early agriculturalists from the Near East

· The “Back to Africa” migration

· The Bantu expansion in Africa

· The ancient Greek diaspora throughout the Mediterranean region and beyond

· The invasion of Europe by the Huns

· The Norman Conquest of England

· The Mongol invasion of China, then Central Asia and Russia

· The multiple waves of pre-Columbian immigration from Asia, and perhaps even Europe, into the Western Hemisphere

All these predate the emergence of a globalized world over the past two centuries, characterized by unprecedented mobility, mass immigration and intermarriage, a period during which the world’s human population has expanded from 1 billion to more than 7 billion.

Homo sapiens is a single species. All members of the species (i.e., all living humans), regardless of their apparent racial or ethnic backgrounds, are genetically fully compatible and can produce viable offspring with other members of the species, barring disease or deformity (or prejudice). From this perspective, the genetic variation within the species is, relatively speaking, “noise.” It is not entirely random noise, and much can be learned from detailed research. However, attempts to force that variation into monolithic, a priori categories is simply bad science.

Comprehensive reviews of the scientific invalidity and pernicious effects of racialist views have convincingly refuted the idea of racial differences in intelligence—for example, *The Mismeasure of Man* (Stephen Jay Gould, 1981, 1996). And yet, justifications of such conceptions, in various forms, continue to be put forth, as in, for example, *A Troublesome Inheritance—Genes, Race and Human History* (Nicholas Wade, 2014).

The explanation of the persistence of race as a category in scientific research is not a problem of science, per se, but the product of larger social forces. It has, in recent years, been influenced by the injection of post-modernist philosophies into the sciences. Such conceptions are promoted by the upper middle class to give a scientific veneer to the continued division and exploitation of the working class. They follow in the tradition of previous racially based prejudice in countries such as England, where the Irish were long considered a separate race by the English ruling class in order to justify keeping Ireland as a colony.

The authors of the *Science* article seek, as the title states, to take the category of race out of the study of human genetics. They fall short, however, when they identify race as a result of semantics rather than as a social construct. The proposed remedy is for the scientific community to eschew the use of the term “race” and substitute such terms as geographic ancestry or population.

Science exists within an economic, social, and political context. While the interactions between scientific research and its larger context are complex, the idea that the influence of racism and racialist perspectives can be expunged from scientific research by a mere change in terminology is naive. Within science, as in society as a whole, discrimination of any sort can only be eliminated when its root cause—class division—is itself ended.

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