

Nobody wants to stop the study of human diversity. But we want to stop scientists with a racist agenda from claiming authority and taking this field of science back 150 years. That is not progress; that is not science; it is anti-intellectualism.

### **Progress Not Regress**

The fact is that nobody is against the search for, say, intelligence genes. At issue is: what do you think they will explain? Anthropologists have long since abandoned discussions of innate racial aptitudes as quaintly antiquated mindsets and accept that aptitudes cannot be evaluated independently of the lives, experiences, and expectations of the people concerned. While individual people may have (or lack) certain abilities as a result of the chance distribution and expression of genetic factors, there is no valid scientific reason to think that human groups differ at all significantly in their intrinsic abilities.

We do know a lot about the relationship between brain size and intelligence for example but we know that except in rare and pathological cases, they don't map particularly well. Currently the best predictor of brain size is body size (big people tend to have big heads). If this is a major determinant of intelligence, then the smartest people on earth would be professional wrestlers!

Anthropologists have been working on this for over a century and have written a great deal about it but the political stakes are high: given the fact of inequality.

### The History

Race – that is to say, the idea that human beings fall naturally into a fairly small number of fairly discrete kinds, each with its own distinct and innate attributes – is an invention of early modern European scholars. Until then, writers and thinkers about human diversity appreciated that different peoples looked and behaved differently from one another, but invariably conceptualized that difference as patterned locally, not globally.

As long-distance commerce came to be dominated by sea voyages, rather than by land travel, the continuity of human form that exists on the globe tended to be supplanted by an optical illusion of discontinuity. Moreover, as Europeans ventured out from nations with well-delineated boundaries and centralized governments, to encounter peoples with more fluid and unfamiliar forms of political and social organization, they tended to homogenize those peoples. Consequently, in 1684 a French physician and traveler named Francois Bernier pioneered the division of the human species into large,

singulars.

para-continental "species or races" – the distinction not having been yet formalized by biologists. These were: (1) the peoples stretching from northern Europe to India, and including Native Americans; (2) East Asians; (3) Sub-Saharan Africans; (3½) Southern Africans, for Bernier wavered about their separate status; and (4) the Lapps or Sami of Scandinavia.

The great Swedish biologist Carl Linnaeus formalized this approach and encoded it into the official taxonomy of the animal kingdom. Within *Homo sapiens*, Linnaeus identified four subspecies, defined by continent, appearance, temperament, legal system (governed by law, custom, opinion, or whim), and clothing (wearing tight-fitting clothes, loose-fitting garments, painting themselves with fine red lines, or anointing themselves with grease), and color-coded for your convenience: white Europeans, yellow Asians, red Americans, and black Africans.

From its inception, then, race was a classificatory practice, and was embedded in cultural ideas of meaningful differences and similarities. Linnaeus, for example, chose not to "other" the Sami, having briefly visited Lapland in 1732 and later having his portrait painted in Sami garb. Nevertheless, Linnaeus's impact on biology was so immense that any subsequent attempt over the next two centuries to study human diversity scientifically would have to begin with the construction of a formal classification of that diversity. The value of that practice would eventually be called into question in the mid-20<sup>th</sup> century. Early anthropologists were struck by both the diversity and malleability of human form, and particularly by the subjectivity inherent within any such classifications. Thus, William Z. Ripley's (1899) *The Races of Europe* and Charles Seligman's (1925) *The Races of Africa* gave odd-sounding plurals in place of the commonsensical

In 1935, motivated by the accession of the Nazis and their racialized political mythology, Julian Huxley and Alfred Cort Haddon published *We Europeans*, the first full-length critique of racial science. Through World War II, global decolonization, and the American civil rights movement, the scientific reality behind human classifications became increasingly difficult to perceive. The endeavor was effectively killed off by the publication of a major review article in Science in 1963, purporting to use genetics to objectively classify our species, yet somehow identifying only one race of Africans, two of Asians, and five races of Europeans – seemingly oblivious to the cultural lenses that permit such results to be perceived.



Today we appreciate that race is not a set of biological facts, but a set of biocultural facts – that is to say, race is not so much the discovery of differences, but the discovery of meaningful differences, differences of political salience, differences that matter. Being descended from Indians matters more in the UK than in the US; being descended from Mexicans matters more in the US than in the UK. Humans are classifying creatures: we differentiate relatives from non-relatives although we are all related; we group ourselves by nationality, by spiritual beliefs, by football team allegiance, by school affiliation. Each of these is very real in some sense, and very unreal in some other sense.

### A Human Diversity Checklist

We can summarize modern knowledge of human diversity in ten points.

#### 1. Human groups distinguish themselves principally culturally.

Not only do we learn the ways to group people meaningfully, but we learn our individual expressions of those criteria as well. We speak certain ways, dress certain ways, dine certain ways, and groom ourselves in certain ways, which serve to differentiate our own group from other groups, and to situate ourselves within a social universe. The greatest antagonisms are rarely between people who are physically the most different; rather, they exist between the worst neighbors. If

things had turned out a bit differently between the two armies of white guys in 1815, you might well be reading this article in French rather than in English.

#### 2. Human biological variation is continuous, not discrete.

This was the way human variation had traditionally been seen until the 17<sup>th</sup> century. The 18<sup>th</sup> century anthropologist J. F. Blumenbach appreciated this empirical fact, but was constrained by working in the shadow of Linnaeus to construct racial boundaries where none existed in nature. The reason for this biological pattern is twofold. First, humans are a political and economic species, and wars, invasions, migrations, and trade have produced long-term connections among local gene pools. And second, populations have adapted to some extent genetically to their environments, but environments are local. There is no environment of Africa or Europe, but many different environments, and adapting to them is consequently not a continental affair, but a local one.

#### 3. Clustering populations is arbitrary.

Human groups are hierarchically organized: a person can be Latvian, Slavic, Baltic, Nordic, and European simultaneously. Moreover, religions, languages, economic strata, and political identities do not map well onto human biological differences. While modern genetic entrepreneurs offer tests to aggregate clients according to their mitochondrial DNA or Y chromosome, it must be borne in mind that these offer a tiny window on the complexities of ancestry. Only twelve generations ago, say about the year 1750, you had over four thousand ancestors, of whom your mitochondrial DNA tracks but one, and your Y chromosome (if you are a man) tracks one more. While many customers may feel as though they have received a significant bit of scientific information about their roots, the genetic test is often less revealing than simply looking in the mirror. While there are gross bio-geographical patterns in the human species, these are often blended with mythologized ancestral narratives, and are commonly quite difficult to separate.



#### 4. Populations are biologically real, not races.

In 1957, the Oxford physical anthropologist Joseph Weiner explained that the human species was now understood "as constituting a widespread network of more-or-less interrelated, ecologically adapted and functional entities." To the extent that the human species comes in geographically delimited units, those units are local and biocultural, not continental and ordained by nature. To study human diversity any other way is to misrepresent its fundamental features.

#### 5. Populations also have a constructed component.

Human populations interbreed with their neighbors, however much they may detest or distrust them. They adopt and absorb outsiders; they raid, they fission, and they merge. They may die off, or disperse, or coalesce. They may think of themselves as unity, or may have unity imposed upon them by others. Old identities are submerged and new identities emerge. Where there were once Hittites, there are now Turks; where there were once Goths, there are now Germans; where there were once Carthaginians, there are now Tunisians. Historical events and demographic processes create identities, and the genetic relationships between earlier and later peoples are often unclear, but are also often mythologized.

# 6. There is much more variation within groups (polymorphism) than between groups (polytypy).

To the extent that a human population can be represented by an abstraction known as the gene pool, it may be of interest to know just how discrete the gene pools of different human

populations are. This question has been studied since the 1970s, and shows that gene pools are not discrete at all; they overlap enormously. You can find someone with Type O blood anywhere on earth; the non-overlapping portions of human gene pools constitute a small proportion of the detectable genetic variation in our species

#### 7. People are similar to those nearby and different from those far away.

The principal determinant of physical and genetic proximity is geographic proximity. Of course this only holds for indigenous rural populations, and its relevance – like much of the discussion of natural patterns of human population diversity – is unclear for the humans who live in large urban centers.

# 8. Racial classification is historical and political, and does not reflect natural biological patterns.

Human classifications can have value for ameliorating the injustices experienced by immigrant and marginalized members of society. These classifications are meaningful to the extent that they summarize the diverse communities of interest to the government. These may be national origins, sexual orientations, religious affiliations, or simply global geographic origins – but they do not represent fundamental natural divisions of the human species.

#### 9. Humans have little genetic variation.

Humans classify one another by cultural criteria, which is quite different from what any other species does. Indeed, however genetically different two people from different parts of the world may seem, two chimpanzees from the same part of Africa are found to be considerably more different. Humans have far less biological diversity than our closest relatives, the apes, for evolutionary reasons that are still unclear, but may well be related to our propensity to divide ourselves by non-biological means.

# 10. Racial issues are social-political-economic, not biological.

What we regard as racial issues in the modern world are only rarely related to biological differences. All populations have specific health risk factors, stemming from their evolutionary and social histories: Sub-saharan Africans are at higher risk than other peoples for sicklecell anemia (as are Saudi Arabians and Indians), eastern European Jews and French Canadians for Tay-Sachs disease, Afrikaners for porphyria variegata, northern Europeans for cystic fibrosis, east Asians for alpha-thalassemia, Pennsylvania Amish for Ellis-van Creveld Syndrome. Ancestry does help to predict certain genetic risk factors, but synonymizing ancestry with race would obscure rather than clarify the risks. And far more significant to overall health risks are other factors, such as neighborhood, occupation, age, sex, recreational habits. Racial issues are about achieving social equality in the modern age, not about gene pools.



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