

## A comment on the forum

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If there is one thing that distinguishes anthropology as a discipline, it must surely be an anti-reductive approach to human origins and existence. In the 1960s this was commonly called a “holistic perspective.”

I would like to comment on two particulars raised in the thoughtful comments. The first concerns the “molecularization of identity” – the fact that we are becoming increasingly defined by our DNA, and as our DNA. Dr. Drusini called particular attention to the wonderful book *The DNA Mystique*, which made this point ten years ago. Today there are geneticists attempting to convince Native American tribes that they can develop a genetic test for tribal membership. This violates the empirical patterns of human biological variation as surely as a perpetual motion machine violates the laws of physics.

Other companies are now offering tests of race, based on the distribution of “Ancestry Informative Markers” distributed differentially in cell lines from the remote corners of the earth. Your degree of African ancestry is literally a measurement of your genomic similarity to 70 cell lines from Nigeria and Congo, who have now become the “official Africans” – although they don’t know it and receive nothing for the honor.

The second involves the transformation of the field of human genetics over the last generation. We began with the development of reductive technologies: gel electrophoresis, the isolation and production of restriction enzymes, DNA sequencing, and later PCR. The Human Genome Project was conceived as little more than something to do with these technologies, a large-scale application. But to secure the billions in federal funding it would take, the Human Genome Project had to convince the citizenry that it was a good way to spend the money – certainly better than the Superconducting Supercollider, which was going to elucidate the structure of the Higgs boson, something it emerged that people really did not

care about.

So the reductive technologies led to the Human Genome Project, which proceeded to revive archaic social philosophies in order to justify itself. “We used to think our fate was in the stars, now we know, in large measure, our fate is in our genes,” said Watson without Crick.

Finally, through the investment of capital, biotech start-up companies began to transform the Human Genome Project into ATM machines.

Which is not to say that this is necessarily bad, but just that it is not the science that we grew up with or that our professors taught us about. This is not the science of Theodosius Dobzhansky or of Luca Cavalli-Sforza or of James Neel – which was by no means pure – but whatever it was, it was science. And the non-scientific issues it grappled with were relatively simple: notably ideological prejudice. That of course is still with us, but now there is a profit motive, there are products to sell, and a market to create and maintain.

Capital has transformed genetic science into a new and unknown kind of thing, in which the production of knowledge is intimately associated with the production of capital, in close synergy with the creation of a market for that knowledge. An unprecedented amount of it is taking place outside of academic contexts, producing unprecedented questions of conflicting loyalties, interests, and motivations. And it need hardly be pointed out that it is in the interests of this new genetics to overvalue the significance of genetics in life.

The more of life you think genetics controls, the larger the potential market for its products. So how can we possibly know what to believe, between the conflicted interests, intellectual prejudices, and cultural naivete of the practitioners?

Likewise, in the study of human variation. We have the extractive technology, we have the capital to transform it into a commodity, now all we need is the natural resource, in this case, native

blood. The only real problem with the Human Genome Diversity Project, may it rest in peace, was that it was so focused on classical scientific issues, that it failed to see the new issues that were nipping at its heels. These were the issues like patenting of cell lines, the manipulation of rights and identities, the meaning of voluntary informed consent in a cross-cultural context, the social and political legacy of colonialism, ownership of the body, and personhood, much less the widespread fear of witchcraft by blood theft and

the fear of developing weapons of mass genetic destruction. The best the Diversity Project could do was say that they weren't racists and didn't care about making money from the venture. But that was no longer enough.

Modern genetics is something that is so unfamiliar that it hard to know whether we can even call it "science" – since, after all, science was never supposed to weigh knowledge against profits. All in all, this is an interesting time to be interested in human genetics.