

21A.240
Race and Science
Spring 2004 MIT

PART 2: REFORMULATING RACE: MAKING AND REMAKING THE IDIOMS OF SCIENCE

Lecture 9. April 8

Review of first part of class. What is race?

Scientific American cover.

Alternative Histories and Futures for the Racial Economy of Science

We're beginning the second half of the course now, and we're shifting gears. Let me map out what our questions will be and where we're going. We're moving away from thinking so much about RACE as an OBJECT of scientific scrutiny to thinking about the RACIALIZED *context* and *content* of scientific and technological practices more generally.

In other words, we want to think not just about how SCIENCE shapes RACE — our concern in the first half of the course — but also how RACE can shape SCIENCE. Here's how I put it on the syllabus:

The second portion of this class, "Reformulating Race: Making and Remaking the Idioms of Science," looks more keenly at the place of race in formulating the problems, approaches, and epistemologies animating scientific work more generally, even when it is not centrally about race as such. We try to understand how the practice of science — and the fashioning of technologies — can be racially marked in both oppressive and liberatory ways, by both dominant and marginalized groups. We want to know, for example, how "whiteness" might get written into science, and whether doing science from historically subordinated racial positions might allow us to see science and technology as well as the history of science and technology, differently. We examine these questions with particular attention to North American political contexts and racial formations.

What does all that mean? I think the best way to begin is with history, with

Schiebinger, Londa. 1993. *Who Should Do Science? In Nature's Body: Gender in the Making of Modern Science*. Boston: Beacon Press, pp. 184-200.

Let's start very simply with the title of this chapter: Who should do science?

Schiebinger uses the question to organize two historical inquiries.

1. The first into European debates about "the race of those who invented the sciences."

Humours (p. 186)

Measurement of crania (p. 188): racial science used to make judgments

2. The second into debates about whether white women and black men could be scientists.

Recall the arguments about the role of analogy in science; comparisons between African men and European women

Now, Schiebinger organizes much of her discussion around Martin Bernal's argument in *Black Athena*. What was that?

OK, WHY would "Afroasiatic" contributions to science be neglected?

Rise of racial science retroactively used to determine "race" of ancient Egyptians through craniometry, etc. where these progenitors of science "black or white"?

Schiebinger claims that the main contribution of *Black Athena* has been to question why Europeans were unwilling to grant an African ancestry to Western science. Fine. But what are some problems with Bernal's argument?

His Afrocentrism actually reinscribes Eurocentrism, enfranchising Egyptians (as black) traditions into the lineage leading toward Western science. So both THE WEST/EUROPE and SCIENCE are the ultimate reference points and destiny in this argument. (p. 189)

This brings up problem of what counts as science. Recall Voltaire about whether women had made any contributions to science — which Voltaire called art, and by which he meant such things as "things mechanical, gunpowder, printing, and the clock." He said, "all the arts have been invented by man, not by woman." Aside from being potentially false, this statement rigs the game by positing a narrow definition — only admitting things culturally associated with masculine enterprise as science. It's a circular definition, seen this way.

This connects up with education: "Excluded from centers of learning, women and Africans could say little about their own nature, at least not in the idiom of modern science." (p. 100)

So, the representation issue is actually linked to the question of who could do science, who could count as a scientific knower.

Harding refers to this bundle of assumptions and social effects as a RACIAL ECONOMY:

"By 'racial economy,' I mean those institutions, assumptions, and practices that are responsible for disproportionately distributing along racial lines the benefits of Western sciences to the haves and the bad consequences to the have-nots, thereby enlarging the gap between them. By 'Eurocentrism,' I mean the assumption that Europe functions autonomously from other parts of the world; that Europe is its own origin, final end, and agent, and that Europe and people of European descent in the Americas and elsewhere owe nothing to the rest of the world" (p. 2).

Can someone try to put this into their own words?

Can someone try to rephrase this/bring it into dialogue with Omi and Winant's notion of racial formation?

"we argue that racial formation is a process of historically situated projects in which human bodies and social structures are represented and organized." (p. 56). "from a racial formation perspective, race is a matter of both social structure and cultural representation" (p. 56). Racial formations are made of racial projects. A racial project is "simultaneously an interpretation, representation, or explanation of racial dynamics, and an effort to reorganize and redistribute resources along particular racial lines" (p. 56).

OK, So Schiebinger writes that "Excluded from centers of learning, women and Africans could say little about their own nature, at least not in the idiom of modern science" (p. 100) — this phrase "the idiom of modern science" connects us directly to:

Stepan, Nancy Leys and Sander L. Gilman. 1993. Appropriating the Idioms of Science: The Rejection of Scientific Racism. In *The "Racial" Economy of Science: Toward a Democratic Future*, Sandra Harding, ed. Bloomington: Indiana University Press, pp. 170-193.

"Since racial science was invariably a science of inequality, produced by European men in an age of widespread racism, to a large (but not predetermined) extent, the scientists' own racial identities and identifications prevented them from asking critical questions about their own science — its assumptions, methods and content" (p. 171).

"One place one encounters a 'critical tradition' in relation to scientific racism is in the writings of those stereotyped by the sciences of the day" (p. 171).

e.g. Antenor Fermin

"How could science be used to transform the racial valuations built into discussions of human variation? Can we discern in the writings of minorities a variety of different tactics, and if so what were they?" (p. 172).

What is scientific resistance and what forms did it take in response to scientific racism?

APPROPRIATING the IDIOMS

"Exclusion from the academy meant exclusion from the authoritative use of the idioms of science. Whenever racial minorities and women wrote critically about the sciences of themselves, their writing ran the risk of being ignored or dismissed because it came from 'outside' professional science, and was therefore by definition 'unscientific.' ... For the African-American or Jew writing as a scientist, or from within science, the writer's own status as objective observer was at stake. The problem of both using science as a language of self-assertion and identity, while exposing its essential political character in relation to racial claims, was rarely addressed by resisting groups because rarely recognized" (p. 178).

1. internalization of scientific idiom (p. 179) self-hatred, and sometimes deflections of stereotypes onto others within one's stigmatized group (e.g. women)(note that race and gender are difficult to separate!)
2. transvaluation (reverse stereotyping) (p. 181)
3. recontextualization (p. 183): questioning data to produce new facts, questioning contexts of explanations for facts (e.g. Kelly Miller's analysis of Hoffman's work on *Race Traits and Tendencies of the American Negro*, also Du Bois' work on health) and *universalizing* traits thought specific to one group (Dr. Martin Delany's claim in 1879 *Principia of Ethnology* that "The color of the blackest African is produced by identically the same essential coloring matter that gives the 'rose cheeks and ruby lips' to the fairest and most delicate beautiful white lady" Today, this would be phrased as: we all have melanocytes, they just have different degrees of activity. Skin color is something that unites, not divides us.)

So, three strategies:

1. question the facts, generate new facts on which different claims could be made.
2. question the explanation of the facts e.g. on Negro health (not innately fragile, but socially compromised: Du Bois' *The Health and Physique of the Negro American*) (p. 184)
3. universalization; a trait assigned to one race and held as negative gets applied to all humans and made positive (Delany's work)
4. alternative ideology not made by "appropriation and reassemblage of elements of the existing science, but by positing a radically different world view, with different perceptions of reality, goals, and points of reference" (p. 185).

So, racially stigmatized people knew that science was political.

This is the idea of an ALTERNATIVE SCIENCE.

So, go back to Omi and Winant's idea of Racial Formation, a social organization that allocates different privileges to different sorts of persons, imagined as having essential difference (also a RACIAL ECONOMY). Our question now becomes how racial formations themselves shape science — we've already seen this IMPLICITLY with all the stuff we've looked at so far — but we want to see how far we can theorize these influences.

We want to think about how RACE can shape SCIENCE, and not just how SCIENCE shapes RACE.

And in lots of different ways! For ill or good. What does the history of science look like if we think, for example, about African and African-American contributions to knowledge? What does science look like when we compare it with Native American knowledge systems — particularly with regard to environmentalism. What do scientists look like when we think about stereotypes of Asian-Americans as good at math and physics?

These are tremendously complicated questions. There are a few different ways we can phrase the question

1. CRITIQUE OF UNDERREPRESENTATION: people who have been racially subordinated have been and are still largely excluded from the practices of science, which happens to be a highly authoritative way of knowing with a great deal of social power. This critique questions the REPRESENTATION of different kinds of people in science.
2. CRITIQUE OF RACIAL "BIAS": the fallout of the under-representation of people from racially subordinated locations has been BIAS in the choice and definition of problems. Sociology of African-American communities would look different if done by people who were participating in those communities; racial science might look different — and, in fact, think about how BOAS saw race in the US from his vantage point.
3. CRITIQUE OF VIEWS OF NATURE IN WESTERN SCIENCE: modern Western scientific traditions, which have crucially taken shape amidst racist racial formations, have taken on board visions of "nature" that are racially charged and that have effects on how humans and nonhumans are understood. Africa, called the "dark" continent by colonial powers, has been stereotyped as "wild"

"Africanized bees"

Harding (pp. 4, 10)

4. ALTERNATIVE SCIENCES/HISTORY: Closely linked to previous critique is the notion that there are "alternative sciences," a claim we'll want to examine in more depth.

An African American Science

George Washington Carver: "the content of his scientific research was deeply infused with his concerns for poor farmers in the south, particularly African-Americans, who still labored under King Cotton and the legacy of slavery" (p. 45) reconstructing content: Carver developed products for the peanut and potato. invented dehydrate peanut products.

Hess writes about RECONSTRUCTION

And WHOSE knowledge practices should count as "science" to begin with? Racism has carefully excised some practices from being *considered* science at all. Just as midwifery, practiced predominantly by women, was carefully excluded from the SCIENCE of MEDICINE with the rise of OBSTETRICS as a male enterprise (facilitated by commitments to detached, dispassionate, disembodied, objective knowing and technological mediation— all characteristics assigned both to elite masculinity and science), so some knowledge practices, because they have been associated with racially subordinated groups, have been disqualified as science. We're going to look at claims like these in the weeks to come.

Not being aware of these is a sign of what Harding would call Eurocentric Scientific Illiteracy.

These are complicated questions — look at syllabus.

How should we think about these questions. David Hess gives us some pointers; think about his notion of TECHNOTOTEMS.

Hess, David. 1995. The Cultural Construction of Science and Technology. In *Science and Technology in a Multicultural World: The Cultural Politics of Facts and Artifacts*. New York: Columbia University Press, pp. 18-53.

We can look at METAPHORS, for example
(the role of analogy in science: whose analogies?)

Hess discusses a lot, from statistics to cell biology. Let's look at Haraway for case study...

Haraway, Donna. 1989. Apes in Eden, Apes in Space: Mothering as a Scientist for National Geographic. In *Primate Visions*. New York: Routledge, pp. 133-156.

Nature parks. Whose nature is this?

Haraway gives us an extended bit of the history of primatology and seeks to alert us to the racial imaginary animating such practices as white Western women showing up in the "wilds of Tanzania" to do science on nonhuman primates.

She starts with this very nice Gulf Oil ad, metonymic of the logics she seeks to unpack.

She argues that primatology has operated according to a "triple code" of gender, science, and race. What does she mean? How do these work in what Haraway calls the *National Geographic* system of primatology?

"when may (white) women represent (species) man? (p. 135).

how does whiteness work in the stories of Jane Goodall, et al.?

KEY: "White cannot be said out loud or it loses its crucial position as a precondition of vision and becomes the object of scrutiny" (p. 152).

Africa coded as ape, giving redeeming touch. African people coded as not part of the human world into which lone white women primatologist travels. She is "alone."