


# Rethinking "Race"

by Randolph Fillmore

(Posted March 23, 1998  Issue 27)

---

## **Abstract**

*The concept of race is regularly used as a descriptor by both scientists and science journalists. It is so deeply ingrained in human consciousness that to uproot it would require a fundamental shift in thinking. Nevertheless, many biologists, anthropologists, and other scientists have long been challenging the scientific validity of this concept, arguing that it is an artificial social construct. The author describes the current debate, and asks whether and how science journalists should take part in it.*

---

Many scientists are campaigning against race. Not against racism, but against the concept of race. They say that the concept of race, created in the colonial era and used to defend slavery, is not a biologically accurate way to explain human variation. It's wrong, they say, and should be scrapped.

Here's what the anti-race camp says. At the 1995 annual meeting of the [American Association for the Advancement of Science](#) (AAAS), University of Michigan anthropologist C. Loring Brace and others asked, "Is race a legitimate concept for science?" [1] Brace and associates found the concept of race "no longer provided scientifically valid distinctions." More recently, at the 1998 AAAS, in a session on the race concept, Central Michigan University anthropologist Leonard Lieberman said that most introductory physical anthropology textbooks now say race is "devoid of utility." [2]

In an article published in the September 15, 1996 [American Journal of Epidemiology](#), three Johns Hopkins researchers encouraged epidemiologists and clinical researchers to not use race as a demographic research category. "Race is widely used in biomedical research, often without any explicit indication of the theoretical construct that its use implies," they argued. [3]

In September 1997, the [American Anthropological Association](#) (AAA) issued a [statement](#) calling for the U.S. government to "phase out" the term *race* from federal data. [4] The reason: the concept has no scientific justification in human biology, said the AAA. Their statement was a response to the U.S. Office of Management and Budget (OMB) directive #15, which designates race and ethnic categories for census data. The AAA says that OMB 15 inaccurately views race and ethnicity as "distinct phenomena" and that the race concept "homogenizes widely varying individuals into limited categories."

Should science journalists - links between scientific minds and public minds, professional wielders of the scientific lexicon - get actively involved in the campaign against race?

The argument for involvement says that science journalists have an obligation to present valid, scientific explanations. It's a responsibility that should include presenting scientific models for human diversity. In their role as public educators, science journalists could - and should - shed light on what can and cannot be expected from data about human health or behavior generated from, or relying upon, the race concept.

The argument for not joining might be summed up in arguments about objectivity and that journalists are not charged with the responsibility of correcting scientists, just reporting on the information they generate. Once more, not all scientists agree with the no-such-thing-as-race position.

Some journalists have explored the race concept. In 1991, I met James O'Byrne of the New Orleans *Times-Picayune* when he was in the process of writing a series entitled "The Myth of Race." O'Byrne spoke at length about the resistance - in and out of the newsroom - to the idea that the race concept was not accurate. The series was a hard sell in Louisiana where, until the 1980s, anyone with 1/32 of "black blood" was considered legally black.

In scientific circles, questioning the race concept goes back decades. Anthropologist Ashley Montagu's suggestion for doing away with the race concept [5] fell on deaf ears in 1942. According to Brace, race was one of the "three pillars" on which anthropology was built. The pillar did not begin to wobble until the 1970s.

Today, anthropologists such as Brace and Lieberman say that race is a dysfunctional paradigm that hinders scientific truth about human physical diversity. Lieberman says the race concept is based on "imaginary clusters of traits." [6] He points out that there is as much variation within the perceived races as between them. He says we should follow the advice of biologist Frank Livingstone who, in 1962, said "There are no races, only clines." [7]

Since the 1960s, biologists have used the term *cline* as a theoretical construct to understand and explain how observable physical features - phenotypes - vary from gene pool to gene pool along geographical gradients. Cline, they say, explains how phenotypes such as skin color, eye shape, and hair texture change from population to population as the observer travels slowly from Stockholm to Nairobi.

Although phenotypes in the premodern world were more geographically bound than they are today, Brace says that "race is not geographical." [8] What he means is that people take their genes and their cultural preferences and tendencies with them. One portable tendency is to marry someone similar to ourselves. Sociologists call this tendency *homogamy*. It is through the practice of homogamy that similar phenotypic traits are replicated by "cultural selection."

While Lieberman prefers the concept of cline over race, he says that we cannot use it to replace race.

Cline is not an equivalent substitute for race . . . it is a completely different concept," Lieberman says. "Cline . . . invalidates race by making possible the recognition that characteristics are distributed in gradients discordantly crossing populations and their boundary lines. Cline is closely linked to the principles of evolutionary biology, such as natural selection, gene flow, and genetic drift. [9]

In other words, people from diverse gene pools can and do mix their genes, obscuring the most familiar markers for race by blending them into a human mosaic of eye shapes, skin shades, nose shapes, and hair types.

While this argument makes sense to many, with the race concept so deeply entrenched in language and social reality, with or without the help of the science media, will it likely be eliminated by two dozen anthropologists and biologists? Not without a serious Kuhnian paradigm shift, complete with a process Thomas Kuhn calls *redubbing*. [10]

In 1970, Kuhn suggested in *The Structure of Scientific Revolutions* that a paradigm is prerequisite to perception. Kuhn said that once a paradigm is constructed, anomalies, or "minor breakdowns" of the paradigm, create tension in the model. "As time goes by and new demands are made on the lexicon, conditions may be encountered that defy description," Kuhn said. [11] Ironically, anomalies appear only against a backdrop provided by the paradigm when the anomalies fail to fit the paradigm's limits and structure. Kuhn said a conceptual paradigm shift can be expected when anomalies become incommensurate with the concept.

In Kuhnian terms, what Brace and Lieberman are saying is that the concept of race - an ideological (not biological) artifact of the prescientific world - has become incommensurate with what we know about the

genetic determinants of human variation. Race now defies scientific description and makes demands on the scientific lexicon.

So one would expect a paradigm shift and redubbing, right? Maybe not. It appears that not many people - even those who work at the OMB - know about, or care about, the anomalies to race. For this reason, race will be hard to discredit and harder to "redub." Belief in the race concept may be unshakable if for no other reason than there is not a suitable replacement with which to redub.

Listening to the argument in 1989, Curt Suplee of the *Washington Post* suggested that the no-such-thing-as-race idea will never fly unless race is replaced by another concept. Cline won't do it, he has told me.

Although race now defies valid scientific description, only a small cadre of biologists and anthropologists are making demands on the lexicon of our beliefs. Their collective voices have created neither a well-recognized incommensurableness, nor a crying need for redubbing race because, as Suplee speculated in 1989, O'Byrne discovered in 1991, and Brace pointed out in 1998, race is "purely a social construct."

Hold on. If race is a social construct, why is it used as an independent variable and demographic factor in epidemiological and clinical research? Three Johns Hopkins researchers have asked the same question. Muntaner, Nieto, and Ocampo argue that for African-Americans negative health outcomes are more likely the result of socioeconomic factors than race, and that socioeconomic factors and social discrimination create many of the biomedical realities often regarded as fact by clinicians. These "facts" range from the idea that African-Americans naturally have lower hemoglobin counts than whites, that blacks are physiologically at greater risk for hypertension, and that prevalence of low birth weight among blacks is "normal." [12]

Okay, eliminating the concept of race may make for better science, but what are the social implications? At the 1995 AAAS meeting, the University of Pennsylvania's Sol Katz asked, "If the concept of race is no longer biologically tenable, does this have an impact in the social sphere? What about the impact on affirmative action, on the census?" [13]

Where do we go from here? If race is not a legitimate concept for science, can it be a legitimate concept for science journalists? Are we writing fiction rather than fact when science journalism deals with race and biomedical research? Brace echoed Katz's 1995 concern at the 1998 AAAS when he said that that whatever the biological flaws of the race concept, it continues to have a social reality and its treatment has had "a profound impact" on the lives of Americans. [14] Are we prepared to accept whatever equally profound social impact questioning the concept may create?

*Randolph Fillmore is a freelance medical technical writer and science journalist who has written for Faulkner and Gray, Prudential Health Care, The Stars and Stripes, and The Baltimore Sun; he is also a part-time instructor in anthropology and sociology.*

---

*Send us your comments and ideas for future articles.*



**Feedback**

---

### ***Endlinks***

[American Anthropological Association - Minority Issues](#) - reports and information from the AAA Department of Minority Affairs. Links to the [AAA Response to OMB Directive 15: Race and Ethnic Standards for Federal Statistics and Administrative Reporting](#); the [AAA Draft Official Statement on "Race"](#); the [AAA Statement on "Race" and "Intelligence"](#); and more.

[One Hundred and Fifty Years of Racial Thinking in American Science](#) - synopsis of the symposium presented at the [American Association for the Advancement of Science](#) 1998 Annual Meeting, organized by C. Loring Brace, with speakers Brace and Leonard Lieberman.

[Changing Views Towards the Concept of Race in American Science](#) - brief synopsis of Leonard Lieberman's paper presented at the AAAS 1998 Annual Meeting; also includes contact information and a paragraph on Lieberman's work. See also [Faculty Experts on Race](#), Lieberman among them, at the University of Central Michigan.

[University of Michigan Museum of Anthropology](#) - sections include Ethnology; North America; Great Lakes; Physical; Ethnobotany; and Special Exhibits. C. Loring Brace is curator for physical anthropology.

---

### ***Previous Press Box Articles***

- ▶ [Pause for Reflection](#)  
by Bernard Dixon (Posted March 6, 1998 ☞ Issue 26)
- ▶ [Changing Course](#)  
by Jim Kling (Posted January 30, 1998 ☞ Issue 24)
- ▶ [Dr. Reporter?](#)  
by Dean A. Haycock (Posted January 9, 1997 ☞ Issue 23)
- ▶ [Celluloid Genetics](#)  
by Jim Kling (Posted December 19, 1997 ☞ Issue 22)
- ▶ [Push, Push](#)  
by Herb Brody (Posted December 5, 1997 ☞ Issue 21)
- ▶ [Online Hangouts for Science Writers](#)  
by Dean A. Haycock (Posted November 14, 1997 ☞ Issue 20)
- ▶ [Driven to Abstraction](#)  
by Phillip F. Schewe (Posted October 17, 1997 ☞ Issue 18)

[more](#)