

## Book Review

### Race and IQ *Again*

A review of *Race: the Reality of Human Differences* by Vincent Sarich and Frank Miele. Boulder Colorado: Westview Press, 2004.

Mark Nathan Cohen, SUNY University Distinguished Professor of Anthropology, Department of Anthropology, SUNY Plattsburgh, NY 12901, USA. Email: [Mark.cohen@Plattsburgh.edu](mailto:Mark.cohen@Plattsburgh.edu).

The ugly but apparently immortal snake of “scientific” racism--“proof” of Black intellectual inferiority--has reared its head again. The most recent entry is *Race: the Reality of Human Differences* by Vincent Sarich, Emeritus Professor of Anthropology, University of California, Berkeley, and Frank Miele, senior editor with *Skeptic* magazine. The essence of the book is that despite much recent discussion to the contrary, races (the traditional three) are real and distinguished by cognition and morality as well as by physical differences. As usual the Black “race” finishes last. The authors begin by critiquing some pronouncements that have been made by people who oppose the idea of race. They follow with a discussion of the history and anthropology of “race” as a concept. Attempting to bolster the underpinnings of their own arguments they point out that awareness of color differences is as old as civilized art and that imputing inferiority to blacks has a long and history. They argue that “racism” is not a new concept developed from European colonization. (I agree.) But perception of color differences is obvious and by itself unimportant. And what people thought in the past about race is no more relevant to what science knows today than what they thought about the shape of the earth. Moreover, groups everywhere are very aware of self/other and color is an obvious and easy way to make distinctions. Groups are also universally convinced of their own superiority, regardless of their own color or economy. So denigrating statements about “others” hardly mean much.

Most of the book discusses the study of genetic measures used to describe the times and directions of branching of the human family tree. The book then morphs into a discussion of the biological reality of three great “races,” black, white, Asiatic; the reality of biological inequality; and the demonstrable deficiencies of the Black “race.” The deficiencies are discussed in terms of low IQ and a pattern of life histories that purport to describe the deficiencies of Black life and character.

Sarich knows an enormous amount about genetic clocks and has certainly contributed a great deal toward our understanding of the branching of the human

family. We are treated to a great deal of his expertise--some self contradictory, much self aggrandizing--in fact far more than is warranted by the main thrust of the argument. This emphasis is designed, I think, to give an overwhelming scientific veneer to the their real goal, the pseudoscience that follows.

Despite discussing human variation and its infinite branches, the authors continue to assert that there are three great races ignoring the number of populations that don't fit (most) and the existence of gradations (clines) in most variables, which belie their classification. Southern Egyptians are Black but northern Egyptians are white, despite the fact that both are part of a well-established gradient of changing skin color from equator to poles. (I suspect that northern Egyptians of intermediate color, like most populations, are classed as white because they were "civilized" in prehistory.)

They also suggest the various classes of DNA markers correlate markedly with perceived race. It is not surprising that they correlate with particular branches of the family tree but that is not the same as stereotyped "races" as they try to argue. In asserting that physical features match ancestry and DNA patterns the authors apparently ignore the number of separate times that certain physical features have emerged. As they note, what we consider essentially African features, particularly but not solely dark skin, have emerged several times in human evolution, in populations as genetically disparate as Africans, Melanesian, and, I would add, native Central Americans, and possibly some South Asians, each more closely related by DNA to light-skinned populations than to the others. My students commonly mistake one for another because they have been taught to see three races.

Black African populations are treated as a monolith despite the Sarich's own work on genes and times of separation of branches of the human family. By his own calculations, African groups, which branched from one another at the time that one such group gave rise to the rest of the world's populations, should display enormous genetic variation. In fact, despite the obvious potential for gene flow (interbreeding) to create homogeneity among such groups, Africa still entertains a very high degree of genetic variation, by some estimates the highest of any continent. The obvious similarities among Africans, e.g., dark color, are naturally selected genetic adaptations to specific shared aspects of the various African environments--in this case, the intensity of tropical sun and consequent dangers of sunburn and skin cancer to light skinned people. The common exposure to tropical sun imposes a very visible similarity on diverse populations and obscures the greater genetic diversity of Africans, particularly for people accustomed to looking at color as a prime identifier.

A particular case in point is the authors' use of the enormous success of one tribe of Kenyan runners in long-distance events, as evidence of the long whispered superiority of Black athletes. If their interpretation of the genetic meaning of this success is correct (which I doubt), the success of this single group implies enormous, highly specific, local genetic variation. Others have called attention to the "superiority" of a Black "race" in other events involving sprinting and jumping. What is significant is that the properties and body types appropriate to the two sets of

events are completely different as are the bodies of the groups involved in these separate classes of events. The former involves relatively compact bodies, the latter long arms and legs and a small trunk, adapted respectively for relatively dry, and cool climates and relatively high altitudes of East Africa, and the lowland hot and humid tropics of West Africa. The two groups are markedly different, despite a common range of colors.

In any case, the differential success of top athletes (at the *extremes* of the distribution of athletic success) tells us very little about the *average* performance in either group. (And, since sporting ability is almost certainly more complex genetically than color distinctions, it would seem that if “races” are described we ought to define one race of super-athletes and one of the rest of us, a classification that would of course cross color lines.) Even if there were specific African-related success in sports, it would hardly prove that there was an opposite or compensatory pattern to IQ as the authors imply. The two qualities aren’t necessarily in competition with one another, and any perceived superiority of people of African origin at the extreme of athletic competition doesn’t begin to match the enormous difference in *average* IQ, which these authors postulate.

In asserting that “races” exist, the authors conveniently ignore significant parts of the definition of supposed “races.” They claim that those who deny the existence of races refuse to provide a precise definition of the “race” concept with which they can argue. In fact that definition has been stated repeatedly and ignored by these authors. Among other characteristics, “races” imply large bundles of co-varying, co-bounded factors with sharp boundaries. If such bundles of traits existed, racial stereotypes would be possible. (“If I know someone’s color, I can easily predict the rest.”) But for the most part such bundles don’t exist. That definition of “races” by bounded clusters or traits is very hard to defend indeed, unless one simply postulates group characteristics without measure or even careful observation, as these authors seem to do.

It is precisely the fact that most “racial” features do *not* line up that makes it possible to define the alternate classifications of people they so quickly dismiss. The authors point to what they consider absurd alternate classifications of the family tree (Norwegians with Nigerians or Chinese with Cherokee) based on individual genetic criteria. But, despite their effort at *reductio ad absurdum*, one does in fact get different but quite reasonable classifications based on various different traits. Color, nose-shape, lip form, blood types, hemoglobin variants, hair color; hair form, genes that protect against specific diseases, not to mention many others, do not have common distributions. Each defines a different segment of the human population. They do not correlate as packages that can be stereotyped. For example, despite “common knowledge” the distribution of the sickle trait gene is not confined to a Black Africans (or other black populations) but crosses color lines to affect people of many different skin shades on both sides of the Mediterranean.

For those who insist on a three-race model, the boundaries of each “race” can change with politics, often with little regard to actual measured color. “White”

includes different people at different times.

Leaving the book aside for a moment, the most useful description of human variation follows not groups at all, but important individual variables. Classification should follow each variable as it is useful to a particular discussion without assuming automatically that it correlates with any other or defines a group of people. (This presumption of “racial” categories is a major flaw in the emerging field of “racial” medicine, which should actually be oriented to these variations. Does the existence of Tay Sachs genes in two populations, Ashkenazi Jews and French Canadians (both of course “whites,” at least now--Jews until recently were not) mean that they are closely related or demonstrate other conspicuous genetic similarities? Probably not. But it does mean that they share an important and dangerous gene of which doctors must be cognizant. Two of the most genetically *different* of human populations, Africans and Melanesians have dark skin, which minimizes vitamin D production in the skin even as it protects from sun damage. The two groups have the same potential problem (rickets or vitamin D deficiency) when they move too far into northern climates and work indoors in urban settings. Culturally assigned “race” doesn’t predict rickets or sunburn; actual measured color does.

When Sarich and Miele leave the familiar discussion of genes their ignorance is astonishing. They know nothing about issues surrounding the meaning, determinants, or measure of intelligence or IQ; nothing about social structures and socio-political environments; and nothing about the African populations they disdain.

Although they never discuss it in any detail, the authors lean heavily on J. P. Rushton’s highly questionable and badly biased “life history” work. Rushton’s work is based on the abuse of the biological principle, r and K selection. The theory suggests that populations in different environments have different reproductive and survival strategies. r-selected species have supposedly evolved strategies of quick reproduction and large families, low quality individuals, high infant mortality, little investment in children, opportunistic exploitation of environments, and dispersing colonization. K-selected populations display the opposite characteristics: slow reproduction of high quality individuals and relative population stability. But Rushton actually turns the ecological implication of these terms on its head. Most ecologists attribute r-selection to unstable and threatening environments such as those of the far north where odds of survival are poor even for high quality offspring, so organisms can only disperse their offspring and “hope.” K selection is appropriate to more stable environments in which a few high quality offspring can be counted on to survive, typically in the tropics. Rushton argues to the contrary that r-selection typifies equatorial regions, yet two of the most K-selected species known, gorillas and people, are in fact tropical African in origin. Rushton’s use of the terms seems more designed to denigrate Black Africans than to pursue serious science.

Using a number of variables that are neither objectively measured or carefully defined Rushton says that (r-selected) Africans are oversexed, promiscuous and over fertile; have earlier menarche; have more marked female sexual indicators, breasts and buttocks; and, at least by implication of r-selection have large families and high

infant mortality; are more aggressive, and impulsive, have slower decision times; are selfish, immoral, criminally inclined; display limited abilities; have poor mental health; show little altruism; lack morality or social control--all as opposed to whites or Asians. These comparisons are simply presumed in accordance with criteria exemplified by carefully selected behaviors evaluated without precision but with clear bias. The results come out matching Rushton's bias with astonishing regularity.

In fact, it is abundantly clear that given the history of slavery, far more Black women have been raped by White men than the other way around. It is by and large "primitive" (i.e. non Western) cultures in Africa and elsewhere that "altruistically" guarantee people the right to eat. No individual in such society goes hungry if food is available--an "altruistic" claim that we can't make. It is Europeans in the 17th-19th centuries, not Africans populations, who have displayed the highest rates of infant mortality (without even counting infants deposited in poor houses where the vast majority died as children rather than being adopted by families as is common among both African and Black American populations). It is certainly not Africans who have made war on, colonized, enslaved or exploited almost everyone else. But those small moral/violent lapses on our part are conveniently overlooked.

Many of the world's populations actively disdain American's reliance on quick decisions and consider them to reflect shallow minds incapable of serious deliberation.

Promiscuity is rapidly increasing for all Americans, or was until AIDS. It is a cultural variable. Differential crime rates in the United States, given known environmental variables and our notions of punishable crimes (e.g. crack vs. powdered cocaine; petty theft vs. corporate embezzling) would not seem to mean much. In fact there is something in the American environment or the American genes that produces violent crime rates that are very high by world standards, regardless of "race."

There is little if any evidence that Black Africans are inherently more fertile than other groups. Large breasts and buttocks are evolved strategies for women in the tropics who must store fat but can't store it as a subcutaneous blanket under the skin where it acts as insulation preventing heat dissipation. In any case, many or most societies don't consider breasts sexual at all, or don't consider large size particularly attractive. These are cultural values. Age at menarche reflects fat accumulation, and has dropped significantly among Westernized populations in the last centuries as diets became richer. It is below those of Africans and other populations not consuming a Western diet. Fertility is not known to be associated with "race" but woman's health and nutrition--and by her choices. Poor families of any "race" without savings or Social Security quite rationally want large families for economic security.

The most significant "investment" in children is breast-feeding, which is very costly to maternal nutrition. In the last century, breast-feeding has been much more common in Africa and other Third World countries than in the West--until we taught (and occasionally tricked) Africans to stop. Breast-feeding is also nature's best contraceptive, so that women who do it are less fertile than women who don't. Some

White North American populations, healthy and well nourished, not breast feeding and making every effort to maximize a woman's fertility, display the highest rates of fertility known-- hardly fitting the racist stereotypes.

Sarich and Miele's discussion of IQ uses two controversial but respectable concepts. The first is "g" or "general intelligence" a statistical amalgam of various test scores thought by some to be the essential core of all intelligence for which a large genetic component is assumed. Whether the statistical amalgam represents a real entity or a mere calculation is heavily debated. Many psychometricians recognize multiple separate categories of intelligence. But there are other problems. Since it is based on standard European or American tests, the content of g is heavily culture bound. I doubt that the same amalgam can simply be transferred to members of other cultures who have adapted to different problems, perceptions, and patterns of learning than we are. Moreover the core value of the amalgam is vocabulary. One can argue that, given equal exposure to words, the size of an individual's vocabulary reflects the individual's cognitive skills. But it seems obvious that individuals' exposure to words is so uneven, that this value probably is primarily learned, not genetic. And if that is the case, the proposed meaning of g itself as genetically determined is questionable.

Second, like many of the proponents of largely genetic determination of IQ, the authors badly abuse the concept of "heritability" generally assumed to reflect the importance of genetic transmission in determining variation in IQ. Heritability is usually measured by concordance between parents and children, or between identical and fraternal twins. Most estimates suggest high heritability of intelligence--accounting for 40-60% (and sometimes, tacitly, 100%) of the variance in intelligence in a population, supposedly indicating a large genetic component. But there are at least two problems with this formulation. Many things that display high concordance among members of a family--such as obesity and intelligence--certainly contain a high degree of shared environment whether or not any genes are involved. So concordance and therefore heritability commonly overstate the importance of genes.

More important the genetic component of variance in IQ is the reciprocal of the environmental component. The larger the difference in environments, the less the component determined by genes will appear. Similarities among identical twins in IQ, even when separated at birth, are thought to indicate high heritability--but such twins are rarely separated very far or into very different circumstances. If there are significant differences in fostered environment--one is neglected; is less well nourished; gets more diseases; is damaged accidentally or by abuse; or even conditioned to distrust the tests and the society they represent--the concordance and the genetic component essentially disappear. The example shows that differences in measured intelligence don't require any genetic differences at all. Intermediate levels of environmental difference would produce intermediate estimates of heritability. Heritability is population and situation specific and cannot be assumed to be a general property of IQ. One cannot translate measures of heritability from situation to situation, let alone from "race" to "race" or continent to continent. The whole idea that there is any intrinsic heritability to IQ is simply false.

It is in its actual estimate of sub-Saharan African/ Black American IQ that the book reaches its preposterous nadir: a flat assertion, that the [genetically fixed] *average* IQ of Sub-Saharan Africa is 70 (against a European-normed mean IQ of 100). It is interesting and informative that the an IQ of 70 is very like the estimate for Ashkenazi Jewish--now considered to have very high average IQ's--offered 75 years ago as proof that Jews were unworthy of citizenship. If we are to believe the tests and the asserted genetic determination of IQ, Jews have evolved to be smart very fast! There has of course been no time for such genetic evolution. Either environments, not genes, have changed remarkably (they have, of course) or IQ tests, as often used, aren't competent to measure of innate intelligence. (They aren't.)

The estimates of African IQ are credited to J. P. Rushton and Arthur Jensen and actually involve the collected work of others. Sarich and Miele describe the relevant tests as paper and pencil tests, (which can hardly test genetically evolved intelligence since skills associated with literacy have appeared--and possibly been selected--so recently in human history. Relevant genes, if any, would have been selected for facility in solving non-literate problems.

The authors do not discuss whether tests have been standardized for the populations in question (as they must be to mean anything) or whether the tests use cultural variables relevant to the populations in question. Not only are test questions utilizing Western cultural items and vocabulary unfair, so are those that use Western ways of thinking, Western values, Western selective perceptions of reality, or Western modes of representing objects. Even seemingly culture-neutral non-verbal tests involving manipulation of geometric objects rely on skills that American children practice but many others do not. Unless Westernized, African children may never have seen regular polygons. The tests must to be sensitive to the situations in which people lives. What skills are necessary; what barriers are there to education or access to Western styles of life; and what barriers limit willingness to embrace those styles. Sarich and Miele do not discuss whether the tests have been translated into the myriad African languages necessary to fair testing (which hardly seems possible) or whether, as seems much more likely, it is presumed that all people can and should be tested in English or French.

These authors themselves suggest that 70 is borderline educable retardation. Colleagues in psychology suggest that the figure approaches that of mental retardation or even developmental disability implying that a very substantial proportion of Africans (almost half) are retarded. They consider the estimate preposterous, because it would produce a barely functional society that would have essentially no capacity for abstract reasoning--hardly a prescription for societies with the rich and vibrant artistic, symbolic and spiritual lives evident in the cultures involved.

The book in fact demonstrates no relationship whatsoever between genes and intelligence. (There is in fact little if any causal relationship well established.) Yet the authors tacitly assume overwhelming genetic control of intelligence, an assumption which very few people on any side in the IQ debate would accept

The authors simply postulate without evidence that brain size correlates with intelligence in modern populations, despite common statements to the contrary, on the basis that such a correlation clearly does exist in a very crude way in the sequence of our prehistoric ancestors. But the two points are not comparable. Different contemporary brain sizes reflect variance *within* a population; prehistoric samples are about changes *across populations* over very large amounts of time during which almost nothing is known about variance within populations.

The correlation of “race” and measured IQ with individual or international wealth and success that they note is probably correct-- but is hardly indicative of the direction of cause. Given what we know of the effects of poverty and social environments on IQ, the causality they imply is very probably backward.

I picked up the book genuinely interested in what evidence a man of the Sarich’ stature might bring to the debate, and how it might change my own perception of the subject. I was frankly concerned that the authors might provide evidence that would seriously challenge my own beliefs about both race and IQ. But by the end I was laughing at the ineptitude of the argument. I find it astonishing and appalling that such an inherently silly book has gotten the positive attention it has; and I am very bitter that such a poor effort would again raise the racist specter of Black inferiority. And judging by some popular reviews it has done just that.

**Mark Nathan Cohen** is author of *Culture of Intolerance* (1998) and *An anthropologist looks at race and IQ*. In Jefferson Fish (Ed.). *Race and Intelligence*. Mahwah NJ: Lawrence Erlbaum Associates.