

# 9

---

---

## RACIST ARGUMENTS AND IQ

*Stephen Jay Gould*

Louis Agassiz, the greatest biologist of mid-nineteenth-century America, argued that God had created blacks and whites as separate species. The defenders of slavery took much comfort from this assertion, for biblical proscriptions of charity and equality did not lube to extend across a species boundary. What could an abolitionist say? Science had shone its cold and dispassionate light upon the subject; Christian hope and sentimentality could not refute it.

During the Spanish-American War, a great debate raged over whether we had the right to annex the Philippines. Imperialists again took comfort from science, for social Darwinism proclaimed a hierarchy in racial ability. When antiimperialists cited Henry Clay's contention that God would not create a race incapable of self-government, Rev. Josiah Strong answered: "Clay's contention was formed before modern science had shown that races develop in the course of centuries as individuals do in years. and that an underdeveloped race, which is incapable of self-government, is no more of a reflection on the Almighty than is an underdeveloped child, who is incapable of self-government."

From *Natural History Magazine*, May 1974. Copyright © The American Museum of Natural History, 1974. Reprinted by permission.

Notice: This material protected by copyright law.  
Reproduced by permission of the publisher via  
Copyright Clearance Center or UNCW Printing  
Services.

**I c i t e** these examples not merely because they expose science at its most ridiculous, but because they illustrate a far more important point: statements that seem to have the sanction of science have been continually invoked in attempts to equate egalitarianism with sentimental hope and emotional blindness. People who are unaware of this historical pattern tend to accept each recurrence at face value: that is, they assume each such statement arises from the data actually presented rather than from the social conditions that truly inspire it.

We have never, I shall argue, had any hard data on genetically based differences in intelligence among human groups. Speculation, however, has never let data stand in its way; and when men in power need such an assertion to justify their actions, there will always be scientists available to supply it.

The racist arguments of the nineteenth century were primarily based on craniometry, the measurement of human skulls. Today, these contentions stand totally discredited. What craniometry was to the nineteenth century, intelligence testing has been to the twentieth. The victory of the eugenics movement in the Immigration Restriction Act of 1924 signaled its first unfortunate effect—for the severe restrictions upon non-Europeans and upon southern and eastern Europeans gained much support from the results of the first extensive and uniform application of intelligence tests in America—the Army Mental Tests of World War I. These tests were engineered and administered by psychologist Robert M. Yerkes, who concluded that “education alone will not place the negro race [*sic*] on a par with its Caucasian competitors.” It is now clear that Yerkes and his colleagues knew no way to separate genetic from environmental components in postulating causes for different performances on the tests.

The latest episode of this recurring drama began in 1969, when Arthur Jensen published his article entitled, “How Much Can We Boost I.Q. and Scholastic Achievement?” in the *Harvard Educational Review*. Again, the claim was made that new and uncom-

fortable information had come to light, and that science had to speak the truth even if it refuted some cherished notions of a liberal philosophy. But again, I shall argue, Jensen had no new data; and what he did present was flawed beyond repair by inconsistencies in the data themselves and by illogical claims in his presentation.

Jensen assumes that I.Q. tests adequately measure something we may call "intelligence." He attempts to tease apart the genetic and environmental factors causing differences in performance on these tests. He does this by relying upon the one natural experiment we possess: identical twins reared apart—for here the differences can only be environmental. The average difference in I.Q. for such twins is less than the difference for two unrelated individuals raised in similarly varied environments. From the data on twins, he obtains an estimate of the magnitude of environmental influence and estimates the genetic component from the additional differences in I.Q. between unrelated individuals. He concludes that I.Q. has a heritability of about 0.8 (or 80 percent) *within* the population of American and European whites. The average difference between American whites and blacks is 15 I.Q. points (one standard deviation). He asserts that this difference is too big to attribute to environment, given the high heritability of I.Q. Lest anyone think that he writes in the tradition of abstract scholarship, I merely quote the first line of Iris Savage's work: "Compensatory education has been tried, and it apparently has failed.

I believe that this argument can be refuted in a "hierarchical" fashion—that is, we can discredit it at one level and then show that it would fail at a more inclusive level even if we allowed Jensen's argument for the first two levels:

Level 1: The equation of I.Q. with intelligence. Who knows what I.Q. measures? It is a good predictor of success in school, but is such success a result of intelligence, apple polishing, or the assimilation of values that the leaders of society prefer? Some

psychologists get around this argument by defining intelligence as the scores attained on "intelligence" tests. A neat trick. But at this point, the technical definition of intelligence has strayed so far from the vernacular that we no longer can define the issue. But let me allow (although I don't believe it), for the sake of argument, that I.Q. measures some meaningful aspect of intelligence in its vernacular sense.

**Level 2: The heritability of I.Q.** Here again, we encounter a confusion between vernacular and technical meanings of the same word. "Inherited," to a layman, means "fixed," "inexorable," or "unchangeable." To a geneticist, "inherited" refers to an estimate of similarity between related individuals based on genes held in common. It carries no implication of inevitability or of immutable entities beyond the reach of environmental influence. Eyeglasses correct a variety of inherited problems in vision; insulin can check diabetes.

Jensen insists that I.Q. is 80 percent heritable. Princeton psychologist Leon J. Kamin has recently done the dog-work of meticulously checking through details of the twin studies that form the basis of this estimate. He has found an astonishing number of inconsistencies and downright inaccuracies. For example, the late Sir Cyril Burt, who generated the largest body of data on identical twins reared apart, pursued his studies of intelligence for more than forty years. Although he increased his sample sizes in a variety of "improved" versions, some of his correlation coefficients remain unchanged to the third decimal place—a statistically impossible situation. Other studies did not standardize properly for age and sex. Since I.Q. varies with these properties, an improper correction may produce higher values between twins not because they hold genes for intelligence in common, but simply because they share the same sex and age. The data are so flawed that no valid estimate for the heritability of I.Q. can be drawn at all. But let me assume (although no data support it),

for the sake of argument, that the heritability of I.Q. is as high as 0.8.

Level 3: The confusion of within and between-group variation. Jensen draws a causal connection between his two major assertions—that the within-group heritability of I.Q. is 0.8 for American whites, and that the mean difference in I.Q. between American blacks and whites is 15 points. It assumes that the black \* deficit is largely genetic in origin because I.Q. is so highly heritable. This is a *non sequitur* of the worst possible kind - for there is no necessary relationship between heritability within a group and differences in mean values of two separate groups.

A simple example will suffice to illustrate this flaw in Jensen's argument. Height has a much higher heritability within groups than anyone has ever claimed for I.Q. Suppose that height has a mean value of five feet two inches and a heritability of 0.9 (a realistic value) within a group of nutritionally deprived Indian farmers. This high heritability simply means that short farmers will tend to have short offspring, and tall farmers tall offspring. It says nothing whatever against the notion that proper nutrition could raise the mean height to six feet (taller than average white Americans). It only means that, in this improved status, farmers shorter than average (they may now be five feet ten inches) would still tend to have shorter than average children.

I do not claim that intelligence, however defined, has no genetic basis—I regard it as trivially true, uninteresting, and unimportant that it does. The expression of any trait represents a complex interaction of heredity and environment. Our job is simply to provide the best environmental situation for the realization of valued potential in all individuals. I merely point out that a specific claim purporting to demonstrate a mean genetic deficiency in the intelligence of American blacks rests upon no new facts whatever and can cite no valid data in its support. It is just

as likely that blacks have a generic advantage over whites. And, either way, it doesn't matter a damn. An individual can't be judged by his group mean.

It current biological determinism in the study of human intelligence rests upon no new facts (actually, no facts at all), then why has it arisen from so many quarters of late? The answer must be social and political—and the sooner we realize how much of science is so influenced, the sooner we will demythologize it as an inexorable "truth-making machine. Why now? The 1960s were good years for liberalism; a fair amount of money was spent on poverty programs and relatively little happened. Enter new leaders and new priorities. Why didn't the earlier programs work? Two possibilities are open: (1) we didn't spend enough money, we didn't make sufficiently creative efforts, or (2) it makes any established leader jittery we cannot solve these problems without a fundamental social and economic transformation of society; or (2) the programs failed because their recipients are inherently what they are—blaming the victim. Now, which alternative will be chosen by men in power in an age of retrenchment?

I have shown, I hope, that biological determinism is not simply an amusing matter for clever cocktail party comments about the human animal. It is a general notion with important philosophical implications and important political consequences. As John Stuart Mill wrote, in a statement that should be the motto of the opposition: "Of all the vulgar modes of escaping from the consideration of the effect of social and moral influences upon the conduct, the most vulgar is that of attributing the diversities of conduct and character to inherent natural differences."