

Educability and Group Differences by Arthur R. Jensen

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## Book Reviews

as well as the children from the middle-class white families who are now in the minority in urban schools.

A little more than fifty years ago, James Harvey Robinson indicated that what we need is education, but education of so different a nature as to deserve an entirely different name. Testing the Teacher is a forceful plea for change, but we shall need more help than this book offers in deciding what the change should be and how it can be effected.

Jensen, Arthur R. Educability and Group Differences. New York: Harper and Row, 1973. 407 + viii pp. \$10.00.

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The major problem confronting American education today is the fact that black students, the nation's largest and most visible minority, score on the average about one standard deviation below whites on tests of intelligence and scholastic achievement. This large racial difference in academic performance is found at all grade levels in both rural and urban areas of all regions of the country, and it has proved intractable in the fact of valiant ameliorative efforts.

When Arthur Jensen suggested in his provocative 1969 Harvard Education Review article that this racial difference may be due in part to genetic factors a storm of controversy was unleashed that is symptomatic of the social importance of the problem. (Elsewhere Jensen has referenced 117 critiques and comments on his article.) Although the original article was not concerned primarily with race, the subsequent discussion focused mainly on the degree to which genetic factors are responsible for observed racial differences in intelligence, and there thus seems to be a consensus that this is a question of fact that is basic to further analysis of the problem. True, some of Jensen's critics proclaimed that the question either should not or could not be answered, but such sophism only intensified the desire for an answer among the more objective and intellectually curious observers.

Jensen wrote responses to many of the critiques and in the process seems to have explored the question of racial differences in intelligence more thoroughly than anyone else had done up to this time. Educability and Group Differences reports his analysis of the relative importance of genetic and environmental factors as causes of the intelligence difference between Negroes and whites in the United States. The title appears to be a euphemism for

"racial differences in intelligence," and sales might have been better if he had called it this.

Jensen's guarded statement on race differences in the 1969 article seemed too small a spark to have ignited such a large fire; however, he is now willing to take a firmer stand. At the end of the book Jensen phrases his conclusion as follows:

In view of all the most relevant evidence which I have examined, the most tenable hypothesis, in my judgement, is that genetic, as well as environmental, differences are involved in the average disparity between American Negroes and whites in intelligence and educability, as here defined. All the major facts would seem to be comprehended quite well by the hypothesis that something between one-half and three-fourths of the average IQ difference between American Negroes and whites is attributable to genetic factors, and the remainder to environmental factors and their interaction with the genetic differences [p. 363].

The book is a polemic against Jensen's critics, whom he dubs environmentalists, but the style is that of a scholarly and dispassionate analysis of the evidence without a hint of ad hominem criticism. The reader gains the strong impression that the environmentalists lose only because the facts are against them and not because the deck has been tampered with in any way. By an impressive mastery of the literature and the ability to state complex issues simply, Jensen seems to have preempted all the logical arguments, much as he did in the 1969 article, leaving those who would disagree only with the uncomfortable choice between equal scholarship and calumnious hyperbole. This time let us hope they choose the former.

In only a few instances does Jensen seem to set up a straw man as when he defines the environmentalist position as claiming that absolutely no genetic factors are involved in the racial difference in intelligence, while the genetic position does not exclude environmental factors. Since it is improbable that any two naturally occurring populations are precisely equal in the genetic factors that produce most of the variance in intelligence, he is in effect saying, "heads I win, tails you lose, if it stands on edge you have a point." Most neutral observers, I believe, would score anything less than, say, one-fourth the difference being genetic as a clear victory for proponents of the environment.

Jensen explains that most scientific knowledge comes not from a single critical study, but from a convergence of different lines of evidence. Thus, he discusses two main types of evidence for the genetic origin of Negro-white differences in intelligence: a) observations that are difficult to explain on an environmental basis,

and b) observations that cast doubt on the major environmental explanations for the group differences. No one piece of evidence is decisive, but the collection makes a strong circumstantial case. Many of the arguments are too complex to be summarized briefly, but some of the more self-evident exhibits will illustrate the type of case Jensen rests before the jury.

Differential sibling regression is difficult, although not impossible, to explain on an environmental basis. If Negro and white children are matched on IQ their siblings IQ scores show regression about half way to the mean for their respective race (p. 118) as would be expected if the racial difference is genetic.

The racial difference is larger than would be expected on an environmental basis. The standard deviation of between-family environmental effects on intelligence is estimated as 3.35 IQ points from the 122 sets of identical twins reared apart from whom intelligence scores are available, and the typical racial difference of 15 points is an improbable 4.5 times this value (p. 167).

Perceptual and motor abilities that are highly heritable and uncorrelated with intelligence show racial differences that are apparently genetic in origin. For example, pursuit rotor learning has little correlation with intelligence, and it has high heritability when performed with the preferred hand and low heritability when performed with the non-preferred hand. Preferred hand pursuit rotor learning shows a large racial difference (whites higher) while non-preferred-hand learning shows no racial difference (p. 327).

Environmentalists have often pointed to the large socioeconomic differences between races as a plausible explanation for the differences in ability. Yet "the mean score of the lowest SES white group exceeds the mean IQ of the highest SES Negro group" in large samples such as the Coleman report (p. 240). American Indians are about as far below blacks in SES as blacks are below whites, yet Indian children score above blacks on both verbal and non-verbal intelligence tests (p. 244). A study conducted by Jensen found that children of Mexican-American migrant farm workers in a California community came mainly from bilingual homes of considerably lower average SES than Negro children in the same community, yet they scored higher than the Negroes on tests of verbal and non-verbal ability (p. 250).

Cultural bias in the tests is dismissed as a plausable explanation for racial differences, since the Negro-white difference is larger on relatively culture-fair, non-verbal tests, such as Raven's Progressive Matrices, than on more culture-loaded scholastic achievement tests (p. 258).

Similarly black-white language differences are not a plausible rival explanation because the racial difference is greater on non-verbal than on verbal tests; translating the Stanford Binet into Negro dialect does not improve performance of Negro children (p. 280); and congenitally deaf children, who presumably have a severe language handicap, do not show impaired performance on non-verbal tests (p. 285).

Lower motivation of blacks is not a likely explanation, since a study conducted by Jensen and associates found slightly higher scores for Negroes than whites on non-cognitive, motivation-sensitive tests (such as making X's) in the same testing session in which the usual verbal and non-verbal IQ differences were observed (p. 271). Other studies by Jensen and associates have found that free-recall of uncategorized lists shows little correlation with IQ and also no significant racial differences. However, free-recall of categorized lists correlates substantially with IQ and shows an appreciable racial difference (p. 273). Since the testing situation is identical for these two tasks, Jensen attributes the differential performance between races to the greater cognitive content of the categorized list.

The controversy surrounding Jensen's writings suggests that there are a number of vocal critics who are violently opposed to any genetic explanation of racial differences in intelligence and who are also somewhat hostile to Jensen personally as one of the more able representatives of the genetic view. This book seems to make a strong case against the environmentalist position, but it also leaves Jensen in a more exposed and vulnerable position before his critics. He has staked his case entirely and irrevocably on evidence, and he has meticulously organized and cited the evidence that he considers crucial. Thus, the task is clear for the Society for the Psychological Study of Social Issues (SPSSI) and others who have Jensen on their list of enemies. Disprove Jensen's evidence. Do not attack Jensen, he is too strong; instead discover the flaws in his data. The monolithic internal consistency of the facts Jensen arrays might be more apparent than real, since some of his facts are based on small samples, some on studies containing methodological flaws, and others on studies that were conducted by Jensen himself. Checking out the more critical lines of evidence should not be difficult. Almost every urban school system has data in its files adequate to test Jensen's assertions about differential sibling regression. Many school systems could readily check the relative intelligence and socioeconomic scores of Negroes and bilingual Mexican-Americans or Indians. Any graduate class in learning could repeat Jensen's free-recall experiments. If several replications of these studies come out right, Jensen will be on the ropes. On the other hand, if Jensen is confirmed, we will be close to a final answer to this troublesome question, and educational psychologists can devote their energies to the even more troublesome issue of what to do about it. Jensen's two-page discussion of this latter issue leaves a great deal of work to be done.