

## ***Inadequate Evidence and Illogical Conclusions***

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*Professor Kagan is critical of the logic of Dr. Jensen's article and presents evidence that any IQ data collected in the standardized manner may not reflect the actual potential of lower class children. In Kagan's opinion, Jensen's major fallacies are (1) his inappropriate generalization from within-family IQ differences to an argument that separate racial gene pools are necessarily different and (2) his conclusion that IQ differences are genetically determined, although he glosses over evidence of strong environmental influences on tested IQ—even between identical twins. Kagan cites new studies which suggest that part of the perceived intellectual inadequacy of lower class children may derive from a style of mother-child interaction that gives the lower class child less intense exposure to maternal intervention. Finally, Kagan argues, present compensatory education programs have been neither adequately developed nor evaluated. We cannot, therefore, use current evaluations of them to dismiss all possible compensatory programs.*

Arthur Jensen's essay on IQ, scholastic achievement, and heredity contains a pair of partially correct empirical generalizations wedded to a logically incorrect conclusion. Professor Jensen notes first that scores on a standard intelligence test are more similar for people with similar genetic constitutions. The more closely related two people are, the more similar their IQ scores, suggesting that there is a genetic contribution to intelligence test performance. The second fact is that black children generally obtain lower IQ scores than whites. Unfortunately, Jensen combines the two facts to draw the logically faulted conclusion that there are genetic determinants behind the lower IQ scores of black children. The error in his logic can be illustrated easily, using stature as an example. There is no doubt that stature

is inherited. Height is controlled by genetic factors. The more closely related two people are, the more similar their height. It is also true that Indian children living in the rural areas of most Central or South American countries are significantly shorter than the Indian children living in the urban areas of those countries. Jensen's logic would suggest that the shorter stature of the rural children is due to a different genetic constitution. However, the data indicate otherwise. The shorter heights of the rural children do not seem to be due to heredity but to disease and environmental malnutrition. The heights of children in many areas of the world, including the United States, have increased considerably during the past twenty years due to better nutrition and immunization against disease, not as a result of changes in genetic structure. Yet a person's height is still subject to genetic control. The essential error in Jensen's argument is the conclusion that if a trait is under genetic control, differences between two populations on that trait must be due to genetic factors. This is the heart of Jensen's position, and it is not persuasive.

Professor I. I. Gottesman, a leading behavioral geneticist, also questions the validity of Jensen's ideas. He notes that, ". . . even when gene pools are known to be matched, appreciable differences in mean IQ can be observed that could only have been associated with environmental differences." In a study of 38 pairs of identical twins reared in *different environments*, the average difference in IQ for these identical twins was 14 points, and at least one quarter of the identical pairs of twins reared in different environments had differences in IQ score *that were larger than 16 points*. This difference is larger than the average difference between black and white populations. Gottesman concludes, "The differences observed so far between whites and Negroes can hardly be accepted as sufficient evidence that with respect to intelligence the Negro American is genetically less endowed."

Let us consider some additional empirical evidence that casts doubt on the validity of Jensen's position. Longitudinal studies being conducted in our laboratory reveal that lower class white children perform less well than middle class children on tests related to those used in intelligence tests. These class differences with white populations occur as early as one to two years of age. Detailed observations of the mother-child interaction in the homes of these children indicate that the lower class children do not experience the quality of parent-child interaction that occurs in the middle class homes. Specifically, the lower class mothers spend less time in face to face mutual vocalization and smiling with their infants; they do not reward the child's maturational progress, and they do not enter into

long periods of play with the child. Our theory of mental development suggests that specific absence of these experiences will retard mental growth and will lead to lower intelligence test scores. The most likely determinants of the black child's lower IQ score are his experiences during the first five years of life. These experiences lead the young black child to do poorly on IQ tests in part because he does not appreciate the nature of a problem.

A recent study of urban black children showed that the IQ distribution had two peaks. There was a large proportion of children with IQ scores around 60 and a much larger group whose distribution was normal and similar to that of white populations. The examiners felt that the very low IQ scores were a product of failure to understand the problem; failure to know what to do; failure to appreciate a test was being administered. This argument finds support in a recent study by Dr. Francis Palmer of the City University of New York. Dr. Palmer administered mental tests to middle and lower class black children from Harlem. However, each examiner was instructed not to begin any testing with any child until she felt that the child was completely relaxed, and understood what was required of him. Many children had five, six and even seven hours of rapport sessions with the examiner before any questions were administered. Few psychological studies have ever devoted this much care to establishing rapport with the child. Dr. Palmer found very few significant differences in mental ability between the lower and middle class populations. This is one of the first times such a finding has been reported and it seems due, in part, to the great care taken to insure that the child comprehended the nature of the test questions and felt at ease with the examiner.

We can quickly dismiss Jensen's suggestion that compensatory education is not likely to help black children. The value of Head Start or similar remedial programs has not yet been adequately assessed. It is not reasonable to assume that compensatory education has failed merely because eight weeks of a Head Start program organized on a crash basis failed to produce stable increases in IQ score. The flaws in this logic are overwhelming. It would be nonsense to assume that feeding animal protein to a seriously malnourished child for three days would lead to a permanent increase in his weight and height, if after 72 hours of steak and eggs he was sent back to his malnourished environment. It *may be* that compensatory education is of little value, but this idea has not been tested in any adequate way up to now.

Finally, it is important to realize that the genetic constitution of a population does not produce a specific level of mental ability; rather it sets a range of mental

ability. Thus genetic factors are likely to be most predictive of proficiency in mental talents that are extremely difficult to attain, such as creative genius in mathematics or music, not relatively easy skills. Learning to read, write or add are easy skills, well within the competence of all children who do not have serious brain damage. Therefore, it is erroneous to suggest that genetic differences between human populations could be responsible for failure to master school related tasks. Ninety out of every 100 children, black, yellow or white, are capable of adequate mastery of the intellectual requirements of our schools. Let us concentrate on the conditions that will allow this latent competence to be actualized with maximal ease.

## References

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