DOCUMENT RESUME

ED 106 305 95 TM 004 365

AUTHOR	Gartner, Alan; Riessman, Frank
TITLE	The Lingering Infatuation with I. Q. COP Bulletin No. 4.
INSTITUTION	City Univ. of New York, N.Y. Queens Coll. New Careers Training Lab.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.
REPORT NO	COP-B-4
PUB DATE	[73]
NOTE	14p.
EDRS PRICE	MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS	Caucasians; Cognitive Ability; Compensatory Education; Cultural Differences; Heredity; Intelligence Differences; *Intelligence Tests; Low Income Groups; *Nature Nurture Controversy; Negroes; *Racial Differences; *Social Differences; *Test Bias; Test Construction

ABSTRACT

Once again intelligence tests are being used as the major basis to establish the genetically determined limitations of minority and economically disadvantaged groups. By reviewing the arguments regarding the I.Q. test and the hereditability of intelligence, the author compares these with two sets of phenomena: the I.Q. test scores and the differentials between blacks and whites, poor and middle class; and secondly, the nature and effect of the compensatory education programs of the 1960's. (DEP)

COP Bulletin 4

THE LINGERING INFATUATION WITH I.Q.

by

Alan Gartner and Frank Riessman

A service provided under a developmental assistance grant from the US Office of Education in support of the Career Opportunities Program to the New Careers Training Laboratory, Queens College, 184 Fifth Avenue, New York City, N.Y. 10010. 212-924-4777.

THE LINGERING INFATUATION WITH I.Q.

Once again intelligence tests are providing the major basis for popular wisdom about education, employment opportunities, and the social class structure. In recent years, Arthur Jensen, first in his 1969 Harvard Education Review article and then in Genetics and Education (1972) and in Educability and Group Differences (1973), Richard Herrnstein in his Atlantic Monthly article (1971) and then in I.Q. in the Meritocracy (1972), William Snockley in various articles and speeches[1], and Christopher Jencks in Inequality: A Reassessment of the Affects of Family and Schools in America (1973), have all accepted the I.Q. scores as the basic measure of cognitive skill, and (except for Jencks) have relied upon these scores to argue the genetic inferiority of those who perform poorly on them. Jensen, in particular, has coupled this argument with the claim that the compensatory education programs of the 1960s have failed, primarily because of their failure to recognize the genetically determined limitations of those (the Black and the poor) for whom they were designed.

We need, in assessing this thesis, to look at two sets of phenomena: the I.Q. test scores and the differentials between whites and Blacks, poor and middle class, and, second, to the nature and effect of the compensatory education programs of the '60s. It is the reading of these two sets of phenomena that has led Jensen and others to reiterate the old hereditarian eugenics conclusion: namely, that as they believe that the differences in white and Black I.Q. test scores (and intelligence in general) are primarily explained as a consequence of hereditary differences, environmental and educational inputs will have little significance on the learning and performance of the Black and the poor.

We will first look at the arguments regarding the I.Q. test and the hereditability of intelligence, then examine issues relating to the programs of the 1960s, and, finally, turn to the public policy consequences.

In looking at the past 20 years of I.Q. test research and criticism, there are three broad questions: How modifiable is the I.Q. test score? What is the evidence from the twin studies regarding heredity and intelligence? And, what is it and of what importance is that measured by the I.Q. tests?

1"Possible Transfer of Metallurgical and Astronomical Approaches to Problem of Environmental Versus Heredity," Science, CLIV (1966); "Negro I.Q. Deficit: Failure of a 'Malicious Coincidence' Model Warrants New Research Proposals," Review of Education Research, XLI (1971); "Models, Mathematics, and the Moral Obligation to Diagnose the Origin of Negro I.Q. Deficits," Review of Education Research, XLI (1971).

Modifying I. Q. Scores

A number of experiments have demonstrated quite conclusively that the I. Q. test score is definitely modifiable. The I. Q. scores of many children vary as much as 15 points over the course of their school years, and for one in 10 children, it varies by more than 30 points. Jensen recognizes that "direct coaching" can increase the I. Q. score by about 9-10 points[2] and in his Harvard Education Review article, Jensen notes I. Q. boosts of from 20 to 30 points and "in certain extreme cases as much as 60 to 70 points."[3]

One of the dimensions to be considered in examining the factors which affect I. Q. test scores is the race of the examiner. A number of studies (H. G. Canady, D. O. Price, Ruth Searles, T. F. Pettigrew, and by a Task Force of the American Psychological Association[4]) show that Black subjects performed better on a variety of tests when there was a Black test giver.

A small recent study adds further evidence in the direction of rejecting the assertion made by the proponents of the hereditarian argument that the race of the tester is of no consequence as to the test performance. Alternative forms of intelligence tests were administered to Black and white high school age males. Whites scored higher than Blacks under the manual administration of the test. When an alternative form of the same test was administered by computer, the scores of the whites remained essentially the same. However, "Blacks improved their performance on the computerized test such that there was no discernible differences between the races" (our emphasis). The authors of the study conclude that computerized testing may circumvent problems such as "potential bias upon the part of the tester, both conscious and subconscious, and anxiety [for the Blacks] that may be readily induced where tests are administered by persons representing more advantaged backgrounds."[5]

---

[2]Arthur R. Jensen, Educability and Group Differences (Harper and Row, 1973), p. 127.

[3]Arthur R. Jensen, "Environment, Heredity, and Intelligence," Reprint Series No. 2, compiled for the Harvard Education Review (1969), p. 73.

[4]Cited by Peter Watson, "I. Q.: The Racial Gap," Psychology Today, VI, 4 (Septembe 1972), pp. 48-52; APA Task Force on Employment Testing of Minority Groups, "Job Testing and the Disadvantaged," American Psychologist, XXIV, (1969), pp. 637-650.

[5]Douglas F. Johnson and William J. Michal, "Performance of Blacks and Whites in Computerized Versus Manual Testing Environments," American Psychologist, XXVIII, 8 (August 1973), p. 698.

A key feature in the hereditarian argument (made particularly by Jensen) is the assertion that while lower-SES children did not differ from other children on non-conceptual tasks, they score significantly lower on the higher order conceptual tasks, Level II (LII) tasks, as Jensen labels them. Although he cites Cronbach's work[6], Jensen fails to acknowledge Cronbach's suggestion that "lower class children could equal or overtake middle class children if they were trained in the usefulness of conceptual analysis."[7] A test of Cronbach's suggestion has been carried out. "The results did not support [as Jensen contends] the presence of consistent, significant race differences in LII ability, when SES was adequately controlled."[8] In closing the authors declared,

> a significantly high number of lower class children, who might otherwise be identified as LII deficient on such tasks, are able to reach a middle class level of functioning when trained. The findings support Cronbach's beliefs, and are in opposition to Jensen's theory that I.Q. differences are a function of genetic differences in conceptual ability.[9]

The most important experiment regarding the malleability of the I.Q. test scores was reported upon 20 years ago by Ernest Haggard.[10]

Haggard reasoned that although poor children may have taken many I.Q. tests, they really did not know how to take these tests properly; they lacked meaningful, directed practice. They also lacked motivation, and their relationship to the examiner was typically distant and beset by fears.

Haggard decided to control each of these factors. He gave both poor and middle class children three one-hour training periods in taking I.Q. tests. These practice periods included careful explanation of what was involved in each of the different types of problems found on the I.Q. tests. The explanations were given in words that were familiar to both groups. Haggard also offered special rewards for doing well, and he trained his examiners to be responsive to the deprived children as well as to the middle class youngsters, thus greatly enhancing rapport.

Under these conditions, the I.Q.s of the disadvantaged children improved dramatically--15 to 20 points on the average. This occured over a period of three days. And it occured even on the old I.Q. tests with the middle class biased items.

---

[6]L. Cronbach, "Heredity, Environmental and Educational Policy," Harvard Education Review, XXXIX (1969), pp. 338-347.

[7]Philip J. Scrofani et al., "Conceptual Ability in Black and White Children of Different Social Classes; An Experimental Test of Jensen's Hypothesis," American Journal of Orthopsychiatry, XLIII, 4 (July 1973), p. 542.

[8]Ibid., p. 551.

[9]Ibid., pp. 552, f.

[10]Ernest A. Haggard, "Social Status and Intelligence," Genetic Psychology Monographs, XLIX (1954), pp. 141-186.

It is noteworthy that the middle class youngsters improved far less than the deprived youngsters in the Haggard experiment. This is because they were already working nearer their capacity and the new environmental input--that is, the equalization of the test environment, did not lead to the expansion of the gap between the two groups; rather, it led to the sharp reduction of the difference.

If motivated practice on only three days can make such a difference in performance on the I.Q. test, one can only imagine what a changed difference in environment on a larger scale would mean for reducing traditional class and ethnic differences. Furthermore, one must question a bit the high level importance of something that can be affected with so little effort!

The Twin Data Reviewed

A basic proposition in the thesis put forth by Herrnstein, Jensen, and Shockley is that much of the intelligence is determined on a hereditary basis (up to 80%) and it is argued, therefore, that it cannot easily be reversed; that is, differences between poor and rich, Black and white, will not be overcome by improving the environment of the have-nots.

The hereditary argument greatly depends on four twin studies. These investigations attempt to show that identical twins reared apart in different environments have highly similar I.Q.s because of their identical hereditary structure. Concommitantly, it is argued that the greater similarities of I.Q. scores among monzygotic (MZ or "identical") twins than among dizygotic (DZ or "fraternal") twins, when both are raised in the same environment, proves the genetic hypothesis.

Central to the power of the studies of the MZ ("identical") twins reared apart, of course, is the nature of the differing environments. If the environments were not significantly differenct, then the relative power of environment and heredity would not be determinable. Leon Kamin, Chairman of the Psychology Department, Princeton University, has shown that the studies of separated twins offer quite insufficient evidence for arguing the primacy of heredity. The most important of the twin studies --those by Sir Cyril Curt--turn out to be problematic in several ways, the most important of which is that the separation of the twins was never under experimental control so that degrees of environmental differences are not as purported.[11]

[11]Leon Kamin, "Heredity, Intelligence, Politics, and Psychology," A Paper at the Annual Meeting, Eastern Psychological Association, Spring 1973.

> Fourty-one percent of the twin pairs grew up in homes that were highly similar socioeconomically; only 26 percent (12 twin pairs) were sent to families markedly different in social class. In nine of these 12 pairs, the twin who lived in the upper middle class home had a higher I.Q. than the twin adopted by the working class home.[12]

In the second largest of the twin studies, that by Shields,

> In 27 cases, the two separated twins were reared in related branches of the parents' families; only in 13 cases were the twins reared in unrelated families. The twins reared in related families resembled one another more closely, to a statistically significant degree. That is scarcely evidence for an overwhelming genetic determination of I.Q. test scores.[13]

In sum, in 41 percent of Burt's studies and in 27 of 40 cases in Shields' study, there was not significent difference between the homes in which the separated twins were reared. Thus, the central experimental condition which had to be met to give power to the studies, the differing environments in which the separated twins were raised, was not met in half the pairs. Furthermore, where the environments differed, the twin in the home with higher income did better on I.Q. tests, lending support to an environmental not hereditary explanation. And, comparing pairs of twins, those in more similar homes had scores more alike than those in less similar homes, again lending support to the environmental thesis, not the hereditarian.

Kamin further points out that Burt's data is dangerously dependent on teachers' subjective assessments of the pupils' intelligence.[14]

After citing numerous shifts in Burt's data from paper to paper, Kamin concludes, "The numbers left behind by Professor Burt are simply not worthy of serious scientific attention."[15, 16]

---

[12]Jerome Kagan, "The I.Q. Puzzle: What Are We Measuring?," Inequality in Education, XIV (July 1973), p. 9.

[13]Kamin, op cit., p. 12.

[14]Ibid.

[15]Kamin, op cit., p. 11.

[16]Basic to the hereditarian argument is the finding that the scores of MZ ("identical") twins reared together are more alike than that of DZ ("fraternal") twins reared in the same environment. This, so the argument goes, is due to the greater genetic similarity of the MZ twins. However, a study comparing 90 pairs of MZ twins and 74 pairs of DZ twins, found that MZ twins, especially females, were "more similar in behaviors that are likely to be the results of similar experience, not heredity. For example, identical twins were more likely than DZ twins to study and do their homework together, to have the same set of very close friends, and to have similar food preferences." The author concluded, "There is a difference in the overall environment of the two types of twins which will, in turn, influence the intrapair differences... . It seems evident that the assumption of a common environment for monzygotic and dizygotic twins is doubtful validity..." R.T. Smith, "A Comparison of Socioenvironmental Factors in Monzygotic and Dizygotic Twins, Testing an Assumption," in S.G. Vandenberg, Methods and Goals in Human Behavior Genetics, pp. 45-61, cited in Ibid.

What Do I. Q. Tests Measure?

To this point, we have not questioned the I. Q. test itself, or addressed the question of that which it purports to measure. We will now turn to these matters. Although they do not argue that educability is synonomous with educability, the hereditarians do use the I. Q. test as a predictor of educability. And there is every reason to do so. "Terman restricted his choice [of test items] to items from the school curriculum. . . ."[17] The makers of the intelligence test made "school progress...the criterion against which the value of the intelligence test would be judged."[18] Having thus intermixed in the composition of the test items of achievement, it was no surprise to find a high correlation between school achievement and what was labelled as genetically determined intelligence. Indeed, those parts of the test most achievement and knowledge oriented correlate most highly with total I. Q.

Whatever it is that the I. Q. tests measure, it is not self-evident that these are qualities to be highly valued or sought. I. Q. tests results typically do not correlate well with creative thinking.[19] Rather, as Erich Fromm long ago pointed out,[20] they test quick mental adaptability and might better be termed "mental adjustment" tests. They typically measure an individual's ability to do brief exercises in which he/she has no intrinsic interest or involvement, they require speed and rapid shifting. By contrast, many of the problems that individuals are expected to solve in real life require much time, concentration and involvement. This type of task is excluded from I. Q. tests. The I. Q. test measures final answers, not the processes used in reaching the answers. And, as noted before, the I. Q. is constructed so as to correlate highly with traditional school subjects and success in that special arena does not necessarily correlate with aspects of life experience, particularly among the poor and the minorities.[21]

---

[17]John Garcia, "I. Q.: The Conspiracy," Psychology Today, IV, 4 (September 1972), p. 42.

[18]Kagan, op cit., p. 6.

[19]On the basis of a review of over 38 studies, Wallach stated that we may conclude that "intelligence test scores and grades on standard academic matter are not effective signs as to who will manifest the strongest creative attainments in nonacademic contests." Michael A. Wallach, The Intelligence-Creativity Distinction (General Learning Press, 1971).

[20]Erick Fromm, Man for Himself (New York: Holt, Reinhart and Winston, 1947), p. 75

[21]Frank Riessman, The Culturally Deprived Child (New York: Harper and Row, 1962), pp. 54, f.

Developed to predict school success, I.Q. tests do that relatively well.[22] But since the traditional school learning context is recognized now to be so desperately lacking in either joy or opportunity, the validity of a predictive measure based on the same restrictive and selective values that characterize the school should be looked at in a new light. Indeed, one might almost be moved to suggest that lack of success on such tests might even be seen as a sign of superior qualities! In any case, there seems to be little if any reason to impute to those who perform poorly on the tests, inadequate heredity.

The Data Summarized: A Syllogism

If I.Q. test scores among Blacks (and others) can be raised through various devices including coaching, training, changing the color of the testers, changing the testing environment, rewording the language of the test, and, most important of all, by a combination of these, then the immutability and power of the I.Q. test score is in question.

If the twin studies are questioned both in terms of the real difference in the environments of the separated MZ twins and as to the nature of environmental similarity of MZ as compared with DZ twins raised in the same home, then the power of the hereditary argument is seriously in doubt.

If I.Q. test scores correlate ill with measures of creativity and correlate well only with school success because the test in its design was set up to do so, then the importance and relevance of the I.Q. test, particularly in an emerging service society, (see below), is dubious.

If all three of these sets of phenomena are so, then it would seem best to conclude that

1. I.Q. test scores are far too variable and affected by far too many factors to reach any conclusions based upon these scores.
2. The weaknesses of the data in the twin studies simply do not allow one to reach any firm conclusions as to the heritability of intelligence. (Furthermore, as they were performed on white twins, their applicabilty to other populations cannot be assumed.)
3. The high correlation between school performance and I.Q. test is a result of the I.Q. test design. The failure of the test scores to correlate highly with other types of learning is a fatal flaw.[23]

---

[22]Many persons have made the point in noting the correlation which exists between I.Q test scores and social class, that this reflects the fact that it is largely white, urban, middle class persons who make up the tests, share experiences, share a semantic network and institutional privileges. Deutsch uses the term "cognitive socialization" to describe the test-taking technique, lower anxiety in the testing situation, and greater capability of decoding the specific verbal and written instructions regarding the test on the part of the white, urban, middle class subjects. He observes that, "There is no reason to support that any of these factors is central to intellectual ability." Martin Deutsch, "Heredity and Intelligence," A Paper at the Social Policy Conference on I.Q., New York City, May 1973.

[23]Kagan reaches much the same conclusions: (1) The I.Q. is a culturally based instrument; (2) the similar I.Q. scores of genetically related people can be simulated in genetically unrelated people who live in similar environments; and, (3) the probable correlation between heredity and environment is ignored in current interpretations of the heritability ratio. Kagan, op cit., p. 11.

The Failure of Compensatory Education

This brings us to the second major plank in the hereditarian thesis. The proponents believe that there was a major effort made to improve the environment of the poor and to reduce the differences between rich and poor, Black and white, during the last decade. There is little question that a great deal of money was spent in these areas, although as Michael Harrington[24] notes, "The Sixties did not 'throw money' at problem --nor innovate recklessly." Citing Moynihan,[25] Harrington reminds us that, "the soc reforms of the mid-decade had been oversold, and, with the coming of the war, underfinanced to the degree that seeming failure could be ascribed almost to intent."[26]

On the whole, the efforts were not successful, but these efforts have to be examined very carefully before one jumps to the conclusion that environmental stimulation and opportunity are doomed to failure. There are two points about the failures of the '60s in the educational field that need to be made: the first is that the basic compensatory approach which guided much of the large scale efforts of the '60s carried with it an implicit message that almost guaranteed failure. The message, in a sense, said to the child, you are inadequate, you must shape up, I will give you the extra help to make you like me. The compensatory argument, in essence, leads from weakness, emphasizes deficiencies and deficits, rather than strengths and positives.

The compensatory thesis expects less from the child implicitly and gets less explicitly There have been numerous powerful criticisms of the whole compensatory programming with its emphasis on deficits, its attempts to make the child of the poor adapt to midd class models, etc. One of the best is to be found in Mario Fantini and Gerald Weinstein, The Disadvantaged Child: Challenges to Education (Harper and Row, 1970).

Our second point in reevaluating the educational programming of the '60s relates to the fact that there are numerous experiments and demonstrations that clearly indicate definite improvement in the learning of poor children, but for the most part these demonstrations were based not on the compensatory thesis but upon the strengths and positive potential of the children. For example, one of the most important demonstrates that where disadvantaged children teach other children, the disadvantaged youngsters improve markably in their learning no matter how measured. The experiments on youth tutoring youth, and children teaching children, have indicated decisive improvements in the learning of disadvantaged children, in some cases as much as three years improvement in six months on standard reading achievement tests.[27]

---

[24]Michael Harrington, "The Left Wing of Racialism," Newsletter of the Democratic Le March 1973, p. 5.

[25]Daniel Patrick Moynihan, Politics of the Guaranteed Annual Income (New York: Random House, 1972).

[26]Harrington, loc cit.

[27]Alan Gartner, Mary Conway Kohler, and Frank Riessman, Children Teach Children: Learning by Teaching (New York: Harper and Row, 1971).

Other efforts have produced demonstrable gains in the learning of poor and Black children. For example, Martin Deutsch has successfully demonstrated that stimulus enrichment for disadvantaged children in the early years has a striking effect on their cognitive development, later learning, I.Q., even when they return to the standard school setting.[28] Alan Gartner has cited a good number of studies where the utilization of paraprofessionals in schools has led to definite improvements in learning, reading scores, etc., on the part of children.[29] Kenneth Clark cites a number of studies that have decisively improved achievement scores of children.[30] And there are countless experiments showing that the I.Q. can be dramatically improved in a very short period of time, in some cases as little as three to five days.[31] The Urban League's Street Academy approach appears to have been highly effective with disadvantaged youngsters.

Most of these experiments and demonstrations emphasize the positives, the strengths, the potential, the special unique contributions of the children of the poor, and the experiments build on these strengths rather than emphasizing deficits which characterize the compensatory effort.

The major problem confronting us then, today, is to analyze why these and similar successful experimental results have not been carried over into deep institutional change, and how this is to be done. This is the problem of educational management that confronts us in the '70s. It will require a public policy that continues to provide funding, not only of positive experiments, but the ways in which to introduce them into large scale systems, for permanent, enduring change, rather than the cynical defeatism which characterizes the new hereditarians and their supporters who would reduce the funding for equality, and would rather blame the victim for their inadequate schooling.

One last point here: whether or not one accepts our interpretation for the educational failures of the past decade, there is no reason at all to accept the hereditarian I.Q. argument that there are innate differences preventing Blacks and poor children from learning. The evidence indicates overwhelmingly that we really do not know the ways in which heredity affects cognitive performance, how much it does it, and how much modifiability is possible, and how much of the difference found between individuals and groups is due to environmental factors.

---

[28]Marshall A. Smith and Joan S. Bissell, "Report Analysis: The Impact of Head Start," Harvard Education Review, 40 (February 1970), pp. 51-104.

[29]Alan Gartner, Paraprofessionals and Their Performance: A Survey of Education, Health and Social Service Programs (New York: Praeger Publishers, 1971). Additional data on the effect of paraprofessions upon children's learning have been collected as part of the Career Opportunities Program. See William Smith, "Career Opportunities Program: A Progress Report on a Mid-Range Demonstration," A Paper in the COP Bulletin series distributed by the New Careers Training Laboratory, Queens College, New York, N.Y.

[30]Kenneth B. Clark, A Possible Reality (New York: Emerson Hall Publishers Inc., 1972)

[31]Haggard, op cit.

The most important fact is that we do not know. And the use of extremely soft data loaded with experimental errors as a basis for setting up presumed hereditary differences in total cognitive functioning is extremely misleading, and in the last analysis, unjust.

Public Policy Consequences

It's not sufficient to respond to the hereditarian argument from the point of view of the data and the case made for the heritability of I.Q., for the proponents argue for the public policy consequences of their findings. One must, then, look both to the issues of these data, as we have above, and, as well, to the public policy issues involved.

The fact that this age old hereditarian argument resonates at the present time is significant in itself. Its significance is very much related to the presumed failure of the '60s and the current backlash against social expenditures for the poor. This new group of hereditarians, while not presenting new evidence on I.Q. data, have reworked some of the well known traditional experiments (experiments which are based upon very soft data, indeed) into their current hereditarian argument that is utilized to buttress a public policy that calls for the diminution of governmental aid for the improvement of the schooling of the poor and the minorities. And, not so incidentally, to reinforce the notion that middle class individuals are doing well in the world because of an innate intelligence that has led to their school and societal economic progress. This is not a new function for the I.Q. tests. In the last 50 years, they have been used consistently to reinforce public policy directed toward limiting the opportunities of immigrants, Blacks, other third world people and so on. Indeed, at an earlier era, they served to limit the opportunities of groups, some of whose members today proclaim their infallibility.

Writing in 1917, Lewis Terman, who in the previous year introduced the Stanford-Benet tests to the United States, said, "if we would preserve our state for a class of people worthy to possess it, we must prevent, as far as possible, the propagation of mental degenerates..., the increasing spawn of degeneracy."[32] Reporting on a study he conducted for the U.S. Public Health Service based upon applying the new mental tests to arriving European immigrants on Ellis Island in 1912, Henry Goddard, another one of the major importers of the tests, found that 83 percent of Jews, 90 percent of Hungarians, 79 percent of Italians and 87 percent of Russians were "feeble minded."[33] Five years later, Goddard was able to report that the use of mental tests "for the detection of feeble minded aliens" had vastly increased the number of aliens deported.[34]

---

[32] L. M. Terman, "Feeble Minded Children in the Public Schools of California," School and Society, V (1917), p. 167, cited in Leon J. Kamin, op cit.

[33] H. H. Goddard, "The Benet Tests in Relation to Immigrants," Journal of Psychoasthenics, XVIII (1913), p. 107, cited in Ibid.

[34] HH. H. Goddard. "Mental Tests and the Immigrant," Journal of Delinquency, II (1917) pp. 243-277, cited in Ibid.

Of course, today it is the intelligence of Blacks that is at question. The early developers of mental testing had their say here, too. "[We] are incorporating the negro (sic) into our racial stock, while all of Europe is comparatively free from this taint. . . . The steps that should be taken must, of course, be dictated by science and not by political expediency. . . . The really important steps are those looking toward the prevention of the continued propagation of defective strains in the present population."[35, 36]

Only Shockley proposes restrictions upon repr . Jensen (echoed by Herrnstein) appears more benign. They never express su for limiting Black population. Rather, they are concerned with the effect of the false, in their belief, environmentalist argument upon Black psyches.

Jensen notes that or Blacks to believe their problems are caused by racial discrimination, past and present,

> could generate a kind of racial paranoia, a belief that mysterious, hostile forces are operating to cause inequities in education and occupational performance, <u>despite all apparent efforts to eliminate prejudice and discrimination</u>--a fertile ground for the generation of frustrations, suspicions and hate.[37] (Our emphasis.)

Besides expressing amazement at Jensen's belief that "all apprent efforts are being undertaken to eliminate prejudice and discrimination," one must note that the statement is an almost classic illustration of what William Ryan has brilliantly labelled as "blaming the victim."[38] For Blacks to recognize the pervasive and continuing discrimination and prejudice in their lives is labelled as paranoid and is then alleged to lead them to behave in undesireable ways. Of course, for Blacks to accept the hereditarian position that their fate is largely genetically determined is counsel to passivity, for what would be the sense of the struggle if one's success in the society is already predetermined and unmodifiable. Thus, the public policy consequences of the hereditarians' argument is a reactionary's double delight--a cutback of "the massive expenditures [made on] misguided, irrelevant and ineffective remedies"[39], and passive acceptance upon the part of Blacks of their fate.

---

[35]C. C. Brigham, <u>A Study of American Intelligence</u> (Princeton: Princeton University Press 1923), cited in <u>Ibid</u>.

[36]Discussing the author of these words, Leon J. Kamin notes, "With this contribution behind him, [C. C.] Brigham moved on to the secretaryship of the College Entrance Examination Board, where he devised and developed the Scholastic Aptitude Test; and at leng to the secretaryship of the American Psychological Association."

[37]Jensen, <u>op cit</u>, p. 21.

[38]William Ryan, <u>Blaming the Victim</u> (New York: Pantheon, 1971).

[39]Jensen, <u>op cit</u>., p. 21.

We look to a different strategy. We believe that little has been done to affect the environment to the extent appropriate to the magnitude of the problem, and that which has been done misfocused in a "compensatory" formulation. And, we see nothing in the very weak data of the hereditarians that is compelling. Thus, until we have tested fully the limits of the environmental approach, there is no reason to adopt the cynical and status quo maintaining hereditarian dogma.

Conclusion

In the last analysis, the debate about the role of heredity and environment in relation to Black/white difference on I.Q. scores, is both abstract and absurd. In the abstract we certainly can agree that both heredity and environment affect I.Q. scores, creativit intelligence, cognitive functioning, as well as height, physical structure, and the like But in the specific, the hereditary factors only can appear to the extent that the enviro ment brings them out, so to speak. For example, there is no questio that heredity and environment both affect differences in height, between individuals and groups. So, in general, Swedes are taller than Japanese. But if the nutritional environment or any other environmental feature is available in only limited fashion to the Swedes, their hereditary superiority will not appear; they may be dwarfed in relation to the Japanese, assuming the latter have a fairly optimal environment with regard to nutrition, exercise, stimulation, sunlight, and a whole series of other environmental inputs. Similarly, the hereditary cognitive potential of Blacks can only be shown, if their environment for this particular characteristic is at least minimal, and preferrably optimal. There is little question that the environmental preparation for I.Q. score functioning, whatever that may mean with regard to real intelligence, creativity, cognitive skill and the like, has clearly been deficient for large numbers of American Blacks. Hence, the hereditary potential with regard to this kind of functioning doesn't appear. They, like the example of the Swedes, are functioning far beneath their hereditary potential.

An abstract analysis, based upon studies of identical twins, really has no bearing on the concrete issue of Black/white differences in cognitive functioning. In other words there is no question that both hereditary and environment play a role in all kinds of traits, including cognitive ones; but the hereditary factors will not be demonstrated, unless there is sufficient environmental stimulation and preparation to bring them out, to elicit them. Jensen's hereditary environment analysis, based in essence on the very limited twin data, has really no significance in assisting us to understand Black/white differences in cognitive performance in the American environment, where Blacks have clearly suffered deep discrimination, which has powerfully affected their environment. This is not to say, to be sure, that Blacks are functioning at a less efficient mental level in the United States, but rather, that on indices, such as I.Q. tests with all their limitations, deep middle class bias, rooted in environmental experiences that have been far less available to Blacks, there is every reason to expect that there will be the perceived differences. We believe that Blacks have highly developed cognitive and verbal ability which do not generally show on the usual instruments (particularly the I.Q.) used at the present time in the United States, nor for that matter, have there been developed instruments which would show the tremendous feeling for language that is demonstrated in Black speech, particularly its integration of the verbal and nonverbal. No test, to our knowledge, however, measures anything like this dimension, which has been environmentally stimulated, and is related to a long standing cultural heritage.

Herrnstein believes that increased environmental opportunity will increase hereditary-based I.Q. differences, and put Blacks at a further disadvantage. He is, of course, assuming that the observed differences in the present I.Q. scores are due predominantly to heredity, rather than to the tremendous environmental differences. Our view is that if environmental opportunity were equal, there would be a great catching up on performance in all kinds of areas by people who have insufficient prior environmental experience. Thus, it is no accident, that in the Haggard study, the increases in intelligence test performance for the disadvantaged youngsters is considerably greater than that of the middle class, the latter having had sufficient environmental stimulation so that they were functioning nearer to their capacities.

What Herrnstein, Jensen, and Shockley do is to apply the highly questionable twin data to make the case that heredity is relevant to intelligence test performance; they then look at the observed differentials between Blacks and whites, and argue that these differences must in large part be due to heredity, failing to recognize that the environment clearly has not been equal for both, the Blacks and the whites. This methodical maneuver is at the heart of their analysis, and enables them to draw erroneous conclusions.

A Postscript

It is noteworthy that the I.Q. test grew up simultaneously with the expansion of public schooling and industrial society. The tests, the traditional schools, the factory are of a piece. The emphasis upon brief and quick tasks, the lack of concern with the process, the restriction to traditional school curriculum items, the lack of correlation with creativity, all make the I.Q. tests of increasingly dubious value. They served to establish hierarchy and to perpetuate selecting out procedures; in short, to maintain the status quo.[40]

In a developing service society,[41] in open classrooms featuring experiential learning, a new measure of achievement and potential (or more likely, a variety of measures, perhaps include the potential for "viscereal learning"[42]) is called for.

---

[40]Samuel Bowles and Herbert Gintis, "I.Q. in the U.S. Class Structure," Social Policy III, 4 & 5 (November/December 1972, and January/February 1973), pp. 65-96.

[41]See Daniel Bell, The Post-Industrial Society (New York: Basic Books, 1973); Alan Gartner and Frank Riessman, "Learning and the Emerging Service Society," National Elementary School Principal (1973), and the authors' forthcoming The Service Society to be published in 1974 by Harper and Row.

[42]Gerald Jonas, Viscereal Learning: Toward a Science of Self-Control (New York: The Viking Press, 1973), p. 135.

This article is based upon a review of Educability and Group Differences to appear in Change (January 1974).