12.
Race and IQ: Jensen's Case Refuted

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Professor Jensen almost singlehandedly shocked social scientists out of their dogmatic slumbers and forced them to adopt a scientific approach to racial and group IQ differences. Others will detail his positive contribution. Mine is the ungracious task of giving reasons for rejecting one of his conclusions. Speaking of the fifteen-point IQ gap that separates black and white school children in America, Jensen asserts: '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…is attributable to genetic factors.'[1] In other words, if the environments of black and white were rendered equivalent, the mean IQ of whites would still be approximately ten points above that of blacks.

In rebuttal I will attempt the following: a summary of Jensen's main line of argument about the racial IQ gap; a summary of what I call the direct evidence on race and IQ; and an analysis of a new body of evidence, the product of the last few years, that refutes the basic assumptions on which Jensen's argument rests.

THE TWO-STEP CASE

Jensen makes his case in two steps and after describing them separately, we will see how they relate to one another. First, he argues that genetic differences between individuals account for about 80 per cent of IQ variance within white America and environmental differences for only 20 per cent, which can be represented by saying that he endorses an h^2 (heritability for IQ) estimate of 80. As for black Americans, he asserts that more evidence is needed but anticipates a similar figure.[2] Next he attempts to falsify literally every environmental hypothesis that has been suggested to explain the racial IQ gap. These range from claims that the content, language, or administration of the tests themselves are at fault to claims that blacks suffer from lower motivation, self-esteem, teacher expectations, and verbal stimulation; they range from emphasis on the black prenatal environment to emphasis on poor nutrition, poverty, and lower socioeconomic status in general. He places particular stress on the failure of compensatory education and environmental enrichment to effect significant IQ gains, save where the environmental differences between the children's initial

and final situations are so extreme as to bear no real resemblance to racial differences.[3] The result is something of a massacre, with Jensen showing that the most cherished environmental hypotheses have been sheer speculation without a single piece of coherent research in their favour. For this alone, all seekers of the truth are greatly in his debt.

The two steps of Jensen's case lend one another a logical force that each lacks in isolation. Usually he begins with his high h^2 estimates because after all, an estimate of .80 means environmental factors play a limited role in explaining IQ differences within the black community. Assume that blacks in general suffer from an environmental handicap so potent as to reduce their mean IQ by fifteen points. Now if that environmental handicap affects some blacks more than others, its very potency would guarantee that it would account for much of the IQ differences within the black community. Therefore, we are forced to conclude that it affects every black to almost the same degree. But how probable is this? For example, take racism as the most likely factor that depresses black IQ below white. Racism may well handicap blacks through low motivation, unfavourable self-image, emasculation of the male, the welfare mother home. But certainly some blacks have drive, self-confidence, a stable home, so how can anyone argue that such factors affect blacks to almost the same degree? Unable to find a factor he can specify without embarrassment, the environmentalist is driven to assume a mysterious factor *X,* a sort of blindfold with no name, that must handicap every black and leave every white unscathed.[4].

At other times Jensen begins with the list of hypotheses environmentalists themselves have put forward to explain the racial IQ gap, more prosaic factors such as income and socio-economic status. When they do this, the environmentalists are in effect conceding that the same factors which differentiate individuals within each racial group are also the principal factors which engender the IQ gap between the races.This means we can treat blacks as if they were a subgroup of the white population, a group of whites who happen to have a mean IQ fifteen points or one standard deviation below the overall average. That means that Jensen can use his h^2 estimates as a powerful tool of mathematical analysis. An h^2 estimate of 80 per cent implies that between-family environmental factors like income and SES account for only 12 per cent of IQ variance, the remaining 8 per cent being within-family environmental differences. If such factors account for 12 per cent of IQ variance, this is equivalent to positing the square root of .12 as the correlation between them and IQ, a correlation of .35. If a group of whites were one *SD* below the overall mean IQ, and if the explanation were entirely environmental, they would have to be 2. 86 *SD*s below the average white environment (1÷.35=2.86); which is to say they would be below 99.79 per cent of whites in general. Once again, how probable is this: that the average black environment in America is well down the bottom 1 per cent of the white environmental distribution?[5]

The above presents Jensen's main line of argument as convincingly as is possible in a limited space. I wish to note for later the two assumptions on which

it is based. When dealing with groups who share fundamentally the same language and culture: the mathematics of h^2 estimates render unlikely an environmental explanation of IQ differences, at least large differences, because they force us to posit an environmental gap too great to be credible; the main determinants of IQ are known and it is irrational to posit a factor *X,* an unspecified factor with great causal potency.

DIRECT EVIDENCE

However plausible it may be, Jensen's case consists primarily of an examination of the *indirect* evidence on the causes of the racial IQ gap. This evidence takes blacks and whites in America, living as they do in separate environments, and attempts to predict what would happen if they shared a common environment, usually that of white America. All the kinship studies, h^2 estimates, matching for socio-economic status, manipulation of environmental factors, aim at that sort of prediction. But there exists another kind of evidence, *direct* evidence of what happens when black and white actually do exchange environments or are raised in a common environment. I believe direct evidence takes priority over indirect, if only because what actually happens in a given situation clearly takes precedence over a prediction of what would happen, no matter how well founded the prediction may seem.

The soldiers of the American occupation forces in Germany, both white and black, fathered thousands of children with German women after World War II. Eyferth selected a representative sample of 181 black children, a matching group of 83 white children, and found that their mean IQs were virtually identical. There seemed no advantage whatsoever in having a white father, a powerful piece of evidence in favour of genetic equality for IQ. Eyferth's study poses the question of whether these black and white soldiers were representative of the larger American populations of black and white males. The author, after an exhaustive study of Army mental test data, concluded that the white soldiers were an elite by one point of heritable IQ, the blacks an elite by about two to four points. Therefore, 80 to 90 per cent of the racial IQ gap was present, which would indicate that most of the gap is environmental and only about two points due to white genetic superiority. Even this trivial amount may be explained away in that Eyferth believed the black children suffered a special handicap because their colour advertized their illegitimacy. Eysenck has suggested that the black children may have had a certain advantage, namely, racial admixture might confer the benefits of hybrid vigour. In my view American whites and blacks are both already so hybridized that evidence from animal hybrids has no true counterpart, a view which appears to be shared by Jensen. The only relevant evidence suggests that racially mixed offspring may suffer some sort of reproductive stress and that this might actually have an adverse effect on IQ.[6]

In England Tizard and her colleagues administered intelligence tests to 149 children admitted in infancy to long-stay residential nurseries, age at testing from

two to almost five years with 92 being at least four-years-old. At all ages and on all tests, both black-black and black-white (mixed parentage) children outscored white children, the average difference being five IQ points. Data on the natural parents reveal that the occupational gap which exists between black and white in England was not present, which would work to inflate the IQ advantage of the black children by one or two points. Greenwood has suggested that selective migration from the West Indies to England may have produced a black elite, but census data from Jamaica show that migrants are representative of all occupational groups save unskilled farm workers. A generous allowance for this would be an elite bias of two or three points of heritable IQ. All in all, Tizard's evidence indicates that black and white attain the same mean IQ when raised in a common environment.[7]

Scarr and Weinberg used the Minnesota Adoption Project to study what happened to the IQs of black children adopted by white parents. Black adoptees do not of course enter a completely white environment: those with black mothers experience a black pre-natal environment; they are rarely adopted at birth, more likely sometime between birth and 5 years old; a black child with white parents may suffer unusual stress; the child does not escape from racism in the larger world outside the home. As for results, the sixty-eight black-white (mixed parentage) adoptees had a mean IQ of 109.0, nineteen points above the average for Minnesota blacks. This is exactly what a hypothesis of racial equality would predict, allowing for the educational level of their natural parents and the fact that they were raised in white homes of above-average quality. Indeed, since they escaped only one of the above handicaps of black adoptees, almost all had white mothers, their mean IQ is surprizingly high. On the other hand, the twenty-nine black-black children had a mean of 96.8, only about seven points above the Minnesota black average. It should be said that these children were disadvantaged compared to the black-white adoptees: their natural parents had a lower educational level than the state average rather than a bit higher; they experienced a black rather than a white pre-natal environment; and their average age at adoption was almost 3 years rather than 9 months.[8]

There are studies, ranging from Witty and Jenkins to the blood-group studies, which purport to show that, at least within the environment of black America, blacks derive no benefit from a higher than average degree of white ancestry. Unfortunately, all of these contain methodological flaws that forbid strong inference, although Mackenzie has described a research design that should yield valuable results in the future.[9]

In sum, the direct evidence is the only evidence, given the present state of the biological and social sciences, that has the sheer relevance necessary to settle the debate about race and IQ. With the exception of ambiguous results for black-black adoptees in Scarr and Weinberg, everything we have favours an environmental over a genetic hypothesis. However, the studies are few, the number of subjects limited (a grand total of 535 of which almost half are from Eyferth), sampling problems abound. Despite its comparative lack of relevance,

Jensen's case so strongly argued is likely to dominate attention until a large body of direct evidence pushes it aside. Therefore, let us return to his main line of argument and see what can be said against it.

IQ TRENDS OVER TIME

The fact that Americans and the people of other advanced nations are making massive IQ gains from one generation to another may seem remote from our theme, but its significance will soon emerge. In America the Stanford-Binet and Wechsler organizations renorm their IQ tests from time to time, and when doing so they make every effort to secure standardization samples representative of Americans in general. Analysis of seventy-three studies, involving almost 7500 subjects with ages ranging from 2 to 48, reveals that every Binet and Wechsler sample from 1932 to 1978 has performed better than its predecessor. The rate of gain is .300 IQ points per year for a total of about 13.8 points. The rank order of the seven samples by quality of performance gives a perfect match for the chronological order and the odds against this arising by chance are 5040 to one.[10]

Assume that black Americans have made IQ gains at much the same rate as whites and that the present racial IQ gap has existed throughout the history of mental testing in America. This generates a prediction: black performance on mental tests in 1968 should have matched the white performance of 1918, that is, gains at .300 points per year would total fifteen points after fifty years. Fortunately, the work of generations of Army psychologists allows us to equate Armed Forces mental tests for difficulty, all the way from the old Army Alpha of World War I through the AGCT of World War II to the AFQT of Vietnam. As Table 1 shows, the black draft of Vietnam with a mid-point of 1968 did indeed match the white draft of 1918, even when we reduce the high percentage of foreign-born whites in 1918 to the low level of three per cent prevalent today.[11] The perfect realization of our prediction is of course somewhat fortuitous: analysis of the World War I data shows that the racial IQ gap in 1918, at least for these young adults, was a full 22.65 IQ points; which means that in order to reach their target blacks had to make gains at a rate of .454 points points per year.

Naturally the rate of black IQ gains has varied, but for simplicity's sake I will treat it as a constant. The fact that blacks have matched white mental test performance after a lag of fifty years poses a question: what has been the black environmental lag behind whites in America in this century, how long did it take the black environment to match the quality, at least in terms of variables that affect IQ, of

Table 1 *White 1918 and Black 1968 Performance on Military Tests*

IQ distributions expressed as percentages

White 1918		Alpha		AGCT		AFQT		Black 1968
61								.28
	. . .	170	. . .	130	. . .	89		
6.17								4.00
	. . .	125	. . .	110	. . .	74	. . .	. . .
19.21								21.95
	. . .	80	. . .	90	. . .	53	. . .	
41.99								43.03
	. . .	34	. . .	65	. . .	25	. . .	
32.02								30.74
100.00								100.00

IQ scores based on 1918 reference population

	Mean	SD		Mean	SD
White 1918	100.00	15.00	Black 1968	100.05	13.89

Notes:
1 72 per cent of white draft World War I took Alpha and scores of the remainder have been equated with the Alpha scale;
2 The proportion of foreign born in the white draft has been reduced to 3 per cent;
3 Black 1968 represents the entire black draft of Vietnam from 1966 to 1970 (mid-point 1968) inclusive of both acceptable pre-inductees and men rejected;
4 The 1918 reference population is the Yerkes sample of the total World War I draft.

the white environment of 1918? If the lag is forty or fifty years, then most or all of the 1918 racial IQ gap was environmental. Those who believe it to be mainly genetic, say 75 per cent genetic and only 25 per cent environmental, must argue that the environmental lag is only twelve years; they must argue that blacks had matched the white environment of 1918 as early as 1930. In the light of black history in America I believe such a hypothesis lacks plausibility. It seems far more plausible that the environmental advantage whites enjoy over blacks is similar to what whites of today enjoy over their own parents or grandparents, the whites of fifty years ago.

A word of caution: this argument counts as a weight in the scales but cannot play a decisive role in the IQ debate. It is not direct evidence, it does not reveal how the races perform when they actually exchange environments or share a common environment. Like all indirect evidence, it speculates about what black environment might be equivalent in quality to the typical white environment. Recent military data suggest that blacks may have made no further IQ gains since 1970.[12] Had this occurred before 1970, blacks would never have matched the whites of 1918, and yet I doubt that anyone convinced of racial equality on the basis of direct evidence would recant because of that. They would simply

assert that black Americans had never attained environmental parity with the whites of 1918 and cite our ignorance of the environmental variables which affect IQ in support. The above argument can show that there is indirect evidence on both sides of the race and IQ debate, rather than all on Jensen's side, but it cannot alter the inferior status of indirect evidence.

Jensen has told me of his doubts about American IQ gains and laid down four criteria before such gains can be taken as fact: (1) the possibility of sample bias must be eliminated by comprehensive samples such as testing of all draft registrants; (2) the test must remain unaltered from one generation to another and IQ gains based on raw score differences; (3) the test must be a culturally reduced test like Raven's rather than one with culturally-loaded items that might be learned from one generation to another; (4) the gains must persist to a mature age after which score increases do not occur, so as to rule out the possibility that people are merely maturing earlier with no real gain at full maturity.[13] A few months ago Professor P.A.Vroon, the distinguished psychologist, dropped a bomb-shell through my letter box. He sent the Dutch data on IQ trends over time, data which meet every one of our four criteria and establish beyond dispute the existence of enormous IQ gains in a single generation.

The Dutch military examines all males during the year they reach the age of 18, and all who pass the medical exam take Raven's. Since the pass rate is constant at over 80 per cent and since only obvious mental defectives are eliminated on medical grounds, sample bias from one decade to another would be negligible; indeed, the Dutch samples are the best we are ever likely to get for a whole national group. In 1945 the military selected forty of the sixty Raven's items as most discriminating and the test has remained unaltered ever since. The Dutch IQ gains are detailed in Table 2 and, measured against a Raven's score of more than twenty-four items correct, they amount to 21.46 IQ points over a period of thirty years.[14]

As a check on this rough method of estimating gains, I secured actual values for men tested during 1981–82. By this time Dutch males with higher education were finding Raven's so easy that the test had an artificially low ceiling, depressing the mean below the median, so I chose the median score of 29.50 items correct as my performance value for those years. The standard deviation was similarly attenuated but calculations negating the ceiling effect gave 6.063 Raven's items as an estimate. Professor Vroon had collected a sample of the 1981–82 examinees numbering 2847

Table 2 *IQ Gains on Raven's, Dutch Males, 18-Year-Olds*

More than twenty-four items correct

	1952	1962	1972	1981–82
Percentage	31.2	46.4	63.2	82.2
SDs from mean	−.4914	−.0778	+.3374	+.9154

More than twenty-four items correct				
	1952	1962	1972	1981–82
IQ trends over time				
	1952–62	1962–72		1972–81/82
Gain in SDs	.4136	.4152		.5780
Gain IQ points (SDs×15)	6.20	6.23		8.67
Total gain over thirty years				
		Gain 1952–1982		
Method I: SD gap×15		21.46 IQ points		
Method II: Raven's scores		19.70 IQ points		
Method III: SD gap adjusted		20.06 IQ points		

Calculations

I. SD gap 1952 to 1981–82=.4914+.9154=1.4068; that×15=21.102 IQ points; that÷29.5 years=.715 points per year; .715×30=21.46 points over thirty years.

II. Raven's scores: 1954 mean=21.39 items correct*; 1954 SD=6.738; 1981–82 median=29.50; 1981–82 SD=6.063*. Score gain=29.50–21.39=8.11; SD gain (1954 SD)= 8.11÷6.738=1.204; that×15=18.054 IQ points; that÷27.5 years=. 657 points per year; .657×30=19.70 points over thirty years.

III. Assume 1952 SD=6.738 and 1981–82 SD=6.063 and apply to SD gap values from I. Raven's score gain=.4914 (6.738)+.9154 (6.063)=8.86; SD gain=8.86÷6.738–1. 3151; that ×15=19.726 IQ points; that÷29.5 years=.669 points per year; . 669×30=20.06 points over thirty years.

Note: values marked with an asterisk derived as described in text.

and traced the scores of their fathers, whose median year of testing was 1954. Vroon's sample was elite by .64 of a Raven's point and since the correlation between sons and fathers was .33, the fathers would be an elite by .21 points, which yielded a mean for 1954 of 21.39; the *SD* was 6.738. As Table 2 shows, these values suggest an IQ gain of 19.70 points over thirty years, and when applied to the rough method bring its estimate into line at 20.06 points.[15] There is simply no way of analyzing the Dutch data without arriving at an estimate of about twenty points gained in a single generation. I wish to say, however, that all estimates are my own and the Dutch authorities bear no responsibility.

These huge gains cannot be due to genetic factors: reproduction differentials between social classes would have to be impossibly large to raise mean IQ even one point in a single generation. But the most surprising feature of the Dutch data is this: when we specify the major environmental factors usually suggested to explain IQ gains, enhanced levels of education from one generation to another, higher levels of socio-economic status, greater test sophistication, they appear to have virtually no explanatory force. For example, when Tuddenham

provided evidence of massive IQ gains in America, based on Army mental tests, he selected an elite from the soldiers of 1918 so as to match the higher educational levels of 1943 and found that fully 55 per cent of the IQ gains disappeared. The Dutch data allow us to do this for men tested in 1952 and 1972, but when we do only 5 per cent of the IQ gain disappears. Raven's lives up to its reputation as a culturally reduced test, that is, almost none of the Raven's IQ gains can be explained by Dutchmen staying on longer in school and gaining higher qualifications.[16]

The Dutch data also allow us to estimate enhanced socio-economic status, as measured by the occupation of the father, from 1952 to 1962, and if projected over the whole thirty years this would amount to 1.18 standard deviations. With a correlation of .33 between father's occupation and son's IQ, this advance might appear to account for 5.84 of our twenty IQ points (1.18×.33=.3894 *SDU;* . 3894×15=5.84). But we must be wary of what Jensen calls 'the sociologist's fallacy': when we select a socio-economic elite from 1952 to match the higher levels of a later year, we are selecting a genetic as well as an environmental elite and, therefore, not all the IQ gains 'explained' are due to environmental factors. In this regard, note that when Vroon and his associates controlled for father's IQ and father's educational level, variables with a high genetic loading, the path correlation between father's occupation and son's IQ was virtually zero (.02). Rather than ascribing IQ gains to rising socio-economic status, it would be easier to argue that Dutch IQ gains are self-perpetuating from one generation to another: thanks to IQ gains Dutch children are being raised by fathers with higher and higher IQs and thus themselves develop higher and higher IQs and so forth. Whatever environmental component we think at work in the above complex of variables, it is hard to see how such advances could account for more than four IQ points per generation.[17]

As for test sophistication, Jensen emphasizes that even when one is working with entirely naive subjects, repeated testing with parallel forms gives gains that total only five or six points.[18] It seems unlikely that a people exposed to comprehensive military testing from 1925 onward were totally naive in 1952; moreover, test sophistication pays diminishing returns over time as saturation is approached, and as Table 2 shows, Dutch gains have actually accelerated, with the decade 1972 to 1982 showing the greatest gains of all. Reviewing all the factors discussed, we get one point for higher levels of education, four points for a complex inclusive of SES, and what for test sophistication, perhaps two points? We cannot of course simply add these points together because the factors are confounded; for example, higher SES encourages staying longer at school which raises test sophistication. Our estimates are all rough guesses; nonetheless, the major known environmental factors look like accounting for only five or six of our twenty-point IQ gain. I should emphasize that the American and Dutch IQ gains are not unique: New Zealand matches America, Leipzig (East Germany) matches the Netherlands, with the Japanese in-between. However, all these data deal with schoolchildren and causal analysis has barely begun.[19]

In sum, the Dutch data show that unknown environmental factors are causing massive IQ gains. This assertion may bring a negative response, that is, when we do discover the factors at work may they not be familiar things such as nutrition, television, greater exposure to information stimuli of all sorts? This objection misses the point: when Archimedes wanted to impress Hiero with the power of the lever, he took a ship in drydock, heavily laden with many passengers and freight, and clasping the end of a compound pulley, drew her along smoothly as if moving under full sail at sea. It would be uninformative to say that Archimedes was using something familiar, his muscles, because without knowledge of the principle of the lever, what Archimedes could do with his muscles was quite inexplicable. If environmental factors which we have always regarded as peripheral, at least in advanced societies like America and Holland, can raise mean IQ a full standard deviation, it does no good to stress their familiarity. We have to explain the fact that they have a potency hitherto never suspected; we have to find the factor *X* that has so magnified their power.

THE TWO-STEPS REFUTED

Imagine that the Dutch of 1952 and the Dutch of 1982 were living together in the Netherlands as members of separate races, one having a twenty-point IQ advantage over the other. Then the whole drift of Jensen's case would convince us that this IQ gap could not possibly be environmental in origin. We would try to make a complete list of the environmental factors that affect IQ and single out those that might separate our two groups without varying much within each group, that is, look for obvious differences in language or culture, large differences in SES or schooling or test sophistication. Having found some of these non-existent and others feeble, we would be driven to those environmental factors that account for IQ differences within groups, which means we would be at the mercy of h^2 estimates. There are no twin studies or adoption studies that supply h^2 estimates for Holland, but studies for similar societies ranging from America to England and Sweden to Denmark suggest .45 as a low estimate for advanced societies without extreme poverty or hunger.

Assuming values of 45 per cent of IQ variance due to genes, 25 per cent to within-family environment, and 30 per cent to between-family environment, Jensen's own mathematics dictate the following: that for the Dutch IQ gap to be entirely environmental, the first group would have to be 2.434 *SD*s below the second (1.33÷the square root of .30=2.434); which is to say that the average environment of the first would be worse than 99.26 per cent of the second. When we recall who our two 'racial' groups really are, the Dutch of 1952 and the Dutch of 1982, this seems absurd: how probable is it that the Dutch of a generation ago were within the bottom 1 per cent of the Dutch environmental distribution of today? Even record low h^2 estimates for Holland would not help. If one assumes an unprecedented 50 per cent for between-family environment,

one still gets the last generation within the bottom 3 per cent of today's environments (1.33÷the square root of .50=1.886).

In other words, Jensen's case shows something to be impossible which we know to be true: there is simply no doubt that the Dutch IQ gap is environmental. It is difficult to see how a case of this kind can ever carry much credibility again. The two assumptions on which it is based are false. First, the main determinants of IQ are *not* known. If direct evidence shows that the black-white IQ gap is environmental, the fact that we cannot find an explanatory hypothesis on Jensen's list merely shows that the list is incomplete. Our ignorance of the environmental determinants of IQ is such that no one can make up a plausible list. To assume the existence of a factor *X,* an unknown environmental variable of great potency, is not irrational but a hypothesis based on a growing body of evidence. Second, the mathematics of h^2 estimates can *not* render unlikely an environmental explanation of large IQ differences between groups. This kind of mathematics leads to false conclusions, and therefore h^2 estimates should be set aside as irrelevant to explaining group differences until we can discover what went wrong.

This completes my own case for the relevance of direct evidence: we should put aside the IQ debate as it has been conducted and collect more direct evidence; what we have may favour a hypothesis of racial equality, between black and white in America, but it is too limited for strong inference.

WORKERS AND THEIR CHILDREN

Jensen's contention that class IQ differences contain a genetic component has aroused less controversy. Individuals do not move from one race to another thanks to their intelligence, but IQ plays some role in social mobility, and if IQ differences between individuals have any significant genetic component, then class differences will have one as well. I accept this and also accept his estimate that taking the IQ variance between adult members of various classes, as much as one-half may be genetic. Jensen emphasizes that children born into various classes tend to differ environmentally more than their parents, while being less different genetically. This means that the genetic proportion of between-class IQ variance would be less for children than adults; he sets no figure, but I will assume one-third would be close to his intent.[20]

However, I want to put the whole question of class IQ differences in perspective. American data based on standardization samples, the Stanford-Binet sample 1932, the Wechsler 1947–48, and the Wechsler 1972, show that the correlation between children's IQ and the occupational status of their parents has declined.[21] Using regression correlations from that source plus the mathematics of a normal curve, I can now present this trend more graphically. Table 3 takes the occupational categories of the parents of school children from 1972 and equates them with earlier years in terms of percentile rankings. For example, the top 15.5 per cent (percentiles 84.5–99.9) of homes were professional in 1972 and

these are compared with the same percentile group from 1932 and 1948; the same kind of comparison applies to the bottom 32.6 per cent (percentiles 0.0–32. 5), that is, homes whose head of household was a worker or farmer in 1972.

Table 3 *Children's IQ and Parental Occupational Status*

Occupational status	Year			Occupational categories
Percentiles	1932	1948	1972	Census 1972
IQ Means[a]				
84.5–99.9	108.26	107.70	107.70	Professional
56.5–84.4	104.02	102.39	102.05	White collar
32.6–56.4	98.58	99.20	98.78	Worker elite
0.0–32.5	93.66	94.87	95.46	Worker and farmer
IQ Differences[b]				
84.5–99.9	14.60	12.83	12.24	Professional
56.5–84.4	10.36	7.52	6.59	White collar
0.0−32.6–56.4	4.92	4.33	3.32	Worker elite
0.0–32.5	–	–	–	Worker and farmer

Notes: a Means refer to white Americans only, black data unavailable before 1972.
b Differences refer to the advantage children of higher status parents possess over children of the bottom 32.6 per cent.

I stress the category of worker and farmer because I think the major concern of lower-class parents, who hear about class IQ differences and particularly genetically determined differences, is that their children or the children of the class with which they identify may suffer greatly because of substandard genes. As Table 3 shows, by 1972 the total IQ advantage of other classes over the lowest class had become quite marginal, only the children of professionals retaining a large advantage at 12.24 IQ points. As for genes, if we put the genetic component of between-class variance for children at one-third, even professional children have an average advantage of only 4.08 points. Workers who have a strong sense of class identity need not worry much about genes and intelligence. The correlation between class and children's IQ in America has always been low and is getting lower.

Jensen asserts that genetic differences can be minimized only if society imposes barriers which prevent people from using their talents to gain or lose on the class hierarchy. I think it worth noting that the decline in the correlation between parental occupational status and children's IQ is general: America gives . 33 down to .29 between 1932 and 1972; New Zealand exactly the same drop between 1936 and 1968; the Netherlands .35 down to .31 between 1952 and 1962.[22] It is possible that all these societies have moved towards irrational

barriers to opportunity. But it could be that young people are choosing occupations with less attention to status and mating across class lines. We lack knowledge here as elsewhere, but pessimism about class and IQ is premature.

NOTES

1 Jensen, A.R. (1973) *Educability and Group Differences,* New York, Harper and Row, p. 363.
2 *Ibid.,* pp. 42–8, 175–86, 345, and 355. Jensen, A.R. (1972) *Genetics and Education,* New York, Harper and Row, pp. 121–30; (1973) *Educational Differences,* London, Methuen, pp. 200–14, 349–50, 391–7, and 415.
3 *Genetics and Education, op. cit.,* pp. 69–203 and 210–14; *Educational Differences, op. cit.,* pp. 1–18, 94–6, 404–7, and 417–428; *Educability and Group Differences, op. cit.,* Chs 10–20. Jensen, A.R. (1980) *Bias in Mental Testing,* London, Methuen, Chs 9–14.
4 *Educability and Group Differences, op. cit.,* pp. 135–9 and 186–90; *Educational Differences, op. cit.,* p. 351.
5 *Educability and Group Differences, op. cit.,* pp. 161–73; *Educational Differences, op. cit.,* pp. 411–14. Jensen, A.R. (1977) 'Race and mental ability', in Halsey, A.H. (Ed.), *Heredity and Environment,* London, Methuen, pp. 232–3. Jensen has used a variety of values for between-family environment, so I used .12 because it represents his eventual best estimate.
6 Flynn, J.R. (1980) *Race, IQ and Jensen,* London, Routledge and Kegan Paul, pp. 84–102 and 219–261; Eysenck, H.J. (1981) 'Special review: James R.Flynn, *Race, IQ and Jensen*', *Personality and Individual Differences,* 2**,** p. 259; Jensen, A.R. (1978) 'Genetic and behavioral effects of nonrandom mating', in Osborne, R.T. *et al.* (Eds), *Human Variation: The Biopsychology of Age, Race, and Sex,* New York, Academic Press, pp. 90–2; Loehlin, J.C. *et al.* (1975) *Race Differences in Intelligence,* San Francisco, Calif., W.H.Freeman, pp. 131–2.
7 *Race, IQ, and Jensen, op. cit.,* pp. 108–13.
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14 Leeuw, J.de and Meester, A.C. (1984) 'Over het intelligente-onderzoek bij de militaire keuringen vanaf 1925 tot heden', in *Mens en Maatschappij,* **59,** 1; Vroon, P.A., Leeuw, J.de, and Meester, A.C. (1984) 'Correlations between the intelligence levels of fathers and sons', unpublished manuscript, author's possession. *Note:* the values for 1981–82 in Table 2 are not those of de Leeuw and Meester, which were based on an incomplete and elite sample, but from data on all men tested in September-December 1981 and September-November 1982 in author's possession, courtesy of Professor Vroon.

15 Leeuw and Meester, *op, cit.,* Vroon *et al., op. cit.,* and Vroon, P.A., personal communications, 24 September through 27 November 1984.

16 Tuddenham, R.D. (1948) 'Soldier intelligence in World Wars I and II', *American Psychologist,* 3, pp. 54–6. Leeuw and Meester, *op. cit:* LO (grade school), LBO (vocational), and MULO (secondary school) were compared for 1952 (p. 21) and 1972 (p. 18), due allowance made for restriction of range. Higher levels of education were useless because the low ceiling inhibited gains. The 1982 data were not used because of their elite character, see note 14.

17 Leeuw and Meester, *op. cit.,* pp. 14 and 16 for SES gain, pp. 13 and 16 for correlation (average of .35 and .31=.33). Vroon, P.A., personal communication, 9 October 1984.

18 Jensen, A.R. (1980) *Bias in Mental Testing,* London, Methuen, pp. 590–1.

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20 *Educational Differences, op. cit.,* pp. 96–7, 195–6, 385–6, 417–20, note p. 97; *Educability and Group Differences, op. cit.,* pp. 151–7, 235–42; *Bias in Mental Testing, op. cit.,* pp. 42–4, 334–47.

21 Flynn, J.R. (1984) 'Banishing the spectre of meritocracy', *Bulletin of the British Psychological Society,* 37, p. 258. The value in the table for WISC-R 1972, II, Actual Mean should be 102.05.

22 See Note 20 for Jensen's argument. For declining correlations: 'Banishing meritocracy', *op. cit.,* p. 258; Elley, *op. cit.,* pp. 150–1; Leeuw and Meester, *op. cit.,* pp. 13 and 16.