

ences in the disadvantaged segments of the population, whose environments are substantially different from the advantaged groups. The heritability of I.Q. scores in lower social-class groups can be lower if their rearing conditions do not foster the development of skills tested by I.Q. scales.

In a large study of identical and fraternal twins in Philadelphia, I found that genetic differences accounted for about half of the I.Q. differences among middle-class children, but practically none of the I.Q. differences among lower-class children. Identical twins, who have the same genetic background, were not more similar than fraternal twins in lower class groups.

Many disadvantaged children do not have the kind of home and neighborhood environments that give them the skills required for I.Q. tests.

Some Viewpoints on Intelligence and Heredity

Dr. Stevens shed further light on the present discussion concerning I.Q. during an informal interview in his office at Harvard University. He has been on the Harvard faculty since 1936, a Professor of Psychology since 1946, and is presently Professor of Psychophysics and Director of the Laboratory of Psychophysics at Harvard. He is the holder of the Warren Medal awarded by the Society of Experimental Psychologists, the Presidential Certificate of Merit for research in the psychoacoustical field during World War II, and many other outstanding honors. His remarks concerning Dr. Herrnstein's work add insights to the controversial subject.

"I was at Stanford University at the time Terman was there, the man who developed the Stanford Binet tests, which are a cornerstone of all this. What Dr. Herrnstein has actually done is to draw together all of the material on what was then called the nature/nurture controversy. He has gone back and reviewed its history accurately. He has thought through some of the implications of the Stanford Binet test and actually made suggestions on how to increase opportunities for the disadvantaged. He makes the very interesting observation that if one succeeds in getting rid of the environmental factors in determining I.Q., then there will be only inherited factors remaining. This may have been said before, but it hasn't been said as well or as forcibly.

"In the nature/nurture controversy, it was mainly during World War II that the environmentalists got into the saddle. It was sort of a worldwide phenomenon and that was the curious thing about it. In Russia, it was Lysenko who succeeded in suppressing all biological work on I.Q. We didn't have anything quite as dramatic as that. As the egalitarian view became more popular and reached its climax in the sixties, it became less and less possible for us to work on what I like to call 'constitutional problems.'

"TV and the Eastern press have swung over to that side and you can get anything published that tells what wonderful things you can do by way of environmental fixing. This is true almost everywhere except in a medical concept. They haven't quite suppressed the doctor. But with that exception, it has become very difficult.

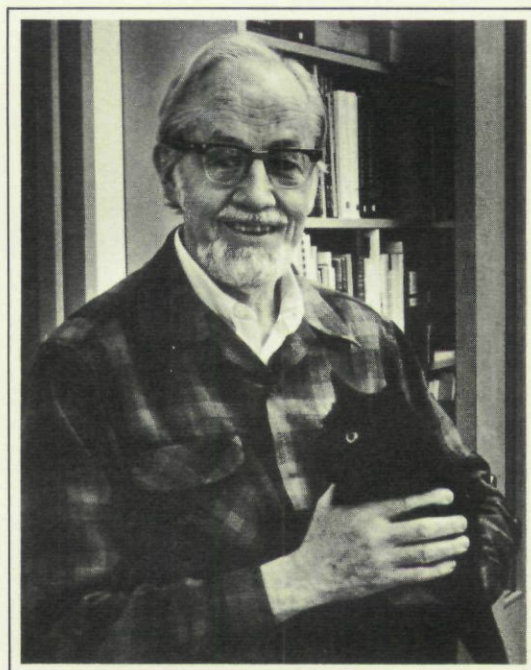
"The Lysenko type of political suppression hasn't taken place here but the result has almost been the same as if it had—the suppression here is of the type that you get when you can't be heard on the biological side of the subject. And beyond

They may learn other important skills, but symbolic reasoning and school-type vocabulary are often poorly developed. If they were raised in homes where these skills were taught, they would do much better on I.Q. tests and in school. And if environmental impediments to high scores were removed, their I.Q. differences would be based far more on genetic differences than they are now.

To the extent that poor children are truly disadvantaged by their family's life style, we must provide better nutrition, preschool education, and the like. But, to the extent that children from ethnically and socially different backgrounds represent cultural diversity, we should recognize the richness in our midsts. Cultural and genetic diversity are extremely useful to a society that does not know where it will be in 1000, or even 100

years.

Suppose that we do not want every child to have the same skills—that we value diversity. Suppose that there were a wider range of good educational situations for children. And further suppose that society gave equally high rewards to a variety of talents. The traditional I.Q. test would no longer be sufficient to tap all those skills. The farther we move the social reward system and the educational system away from their reliance on sameness (high I.Q.), the more diverse talents can be rewarded, and the more just will be the development of the genetic diversity among us. We cannot, and should not try to, get rid of our differences. We can only make sure that every child has the best possible opportunity to develop what he can, and reward him for what he becomes. ☞



Professor Stevens is a native of Ogden, Utah. He received his A.B. degree from Stanford University in 1931, and his Ph.D. from Harvard in 1933. During 1946-1953 he was a consultant to the Research Development Board. Dr. Stevens was a member of the Space Science Board of the National Academy, 1958-1960; and served from 1949-1952 as Chairman of the Division of Anthropology and Psychology of the National Research Council. He is photographed in his office on the Harvard campus, with a pet cat which patrols the premises.

that you occasionally run into more violent suppression attempts such as Dr. Herrnstein suffered by having people following him around to annoy him, putting up posters attacking him, and trying to get him fired.

"This suppression of nature correlates has gone along with the present ascendancy of the social sciences. The typical social scientist believes that his discipline can do everything. That is not too surprising because after all that is what he is selling; that is his bag. So that as a result we have some sociologists telling us that I.Q. testing is useless and a menace. Will it change? Probably. The pendulum can never stay at its furthest excursion very long. I don't know what else you can do but just wait for it to come back.

"You might start jailing the mental testers, I suppose. I think I read of someone starting a class-action suit to prevent the giving of intelligence tests, back in November. Now if this suit succeeds (which is very much like what happened in Russia) then there will be no more tests. They don't have them any more in Russia.

"Of course they have to judge performance by some standards regardless of whether you use an I.Q. test or not. The Russians are no dummies, and they have found their own methods of judging performance. When I was in junior high school, the coach of our football team just lined up the boys and made us run. He even bothered to time us. If we could run fast, he was interested. The I.Q. test is the same thing. It is a sample of performance. If

you don't have an I.Q. test, then you contrive all sorts of other ways of sampling. So, in Russia, no I.Q., but just the same they have some kind of tests in order to get into a university. That amounts to the same thing. They have other samples of performance.

"What these people are complaining about is the fact that, thanks to I.Q. tests, we have a good sample of what a man's intellectual capacity is. And that in itself really constitutes the most important practical contribution that psychology has made to society so far. The reason it is important is that you can predict things from it. And of course there has been criticism—I don't know of anything much including Einstein's theory of relativity that hasn't been criticized by many people.

"Certainly no good idea has failed to be criticized by many people, and I suppose this is just another example of it. Geneticists know that it is safer to work on fruit flies than people. We are all cowards at some point." ☞

Editor's note: We regret that space does not permit us to print each author's work in its entirety as well as the work of other researchers in this field. Any readers wishing to obtain additional material by these authors and others on this subject, are invited to write to the Editorial Department of The Saturday Evening Post for sources. The SEP is interested in having your views and comments. Please write to us if you have opinions you wish to express.

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