

Jensen: Environment is a factor in IQ

It's been eight years since Arthur R. Jensen's controversial research on the relationship between IQ scores and genetics was published in the *HARVARD EDUCATIONAL REVIEW*. In the 123-page article he argued that genetic factors are more important than environmental ones in determining IQ—a conclusion that triggered charges of racism and a whole new chapter in the nature versus nurture dispute.

Now the University of California at Berkeley psychologist reports he has detected an apparent, steady decline in IQ among rural Georgia black students, as they get older. But this "cumulative deficit in IQ" among 5 to 18 year olds, Jensen says, is almost totally due to *environmental* factors of living in depressed, disadvantaged conditions lower than those of whites in the same area.

"This means that the black-white difference at least in certain parts of the country does have an environmental cause," Jensen told *SCIENCE NEWS*. "Years ago we had no idea whether there were any environmental causes at all. Environmentalists presumed they [such causes] existed, but there were no studies performed that vigorously demonstrated this."

The findings do not reverse Jensen's previous conclusions that genetic factors may play a big role in determining original IQ scores at a young age, he says. But the latest results *do* mean that IQ discrepancies between whites and blacks "can't be attributed only to genetics," he says. And, Jensen readily concedes that he "didn't expect" to find such a large environmental factor in the Georgia study. In fact, his hypothesis going into the survey leaned towards "thinking maybe they [environmental influences] didn't exist."

A major reason for the psychologist's skepticism was his 1974 study of some 3,000 grade schoolers in Berkeley, in which he found no cumulative difference in IQ as the youngsters progressed from kindergarten through the sixth grades. IQ scores of the younger students were compared to the updated scores of their older brothers and sisters, most of whom had original IQ's comparable to their younger siblings when tested years before.

Since there was no decline in IQ among blacks or whites, Jensen concluded that environment did not affect scores. But he also believed that Berkeley—an area of liberal education and lifestyles—may not have been the most appropriate place to search for such an effect. "I thought that if it [an environmentally caused IQ deficit] didn't exist in a rural, depressed community, then it probably didn't exist," he says.

So, Jensen essentially duplicated his Berkeley study in a rural Georgia town (he declined to specify the community),

where the standard of living was low for all, but particularly for blacks. Among the 653 youngsters tested, "blacks showed significant and substantial decrements in both verbal and nonverbal IQ's as a linear function of age . . . from about 5 to 16 years of age," he reports in the *MAY DEVELOPMENTAL PSYCHOLOGY*. While the mean IQ of the white children remained at around 102 throughout those years, the scores of the blacks dropped about one point per year and computed to a mean of 71.

Jensen attributes this "enormous difference" from the average IQ for blacks (around 85) nationally and in Berkeley to the environmental disadvantages of being a rural, southern black. "I can't say exactly what those factors are," he says. "They may have to do with nutrition, general health and a disadvantaged home environment." Still, Jensen says he believes that the original, overall IQ difference between blacks and whites (the white average is just under 102) may be partially due to genetics. But, he cautions, "this is not a proven thing."

Harvard psychologist R. J. Herrnstein agrees that Jensen's results "strongly suggest environmental factors." But he adds that the large drop in black IQ could also be due to "imperfect standardization of the test." IQ standards geared toward the white norm of 100 are perhaps inappropriately applied to many of those with nonwhite backgrounds, he suggests. □

Parents' aloofness slows twins' progress

Verbal and intellectual development among twin boys is slower than that of nontwin boys of the same age, University of Calgary researchers have determined after a study of 136 two-and-a-half-year-old males. However, the difficulties are linked more to how twins are treated by their parents rather than any congenital condition.

The researchers report that twins experience fewer verbal interchanges of all kinds with their parents and receive fewer demonstrations of affection—even after allowing for differences in parents' education levels. And in comparing verbal and other activity measures to 92 twins and 44 single boys, they found consistently better performances by the nontwins. Moreover, the test results suggest that "the prenatal and perinatal environment is a less important influence on language development than is the postnatal environment."

Hugh Lytton and Dorice Conway of the university's educational psychology department and Reginald Suavé of the

faculty of medicine conclude in a recent *JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY* that "it is the parents' reduced speech that contributes to the twins' lower verbal facility, rather than a lower facility evoking lesser parent response." As to why such parents are less involved, the scientists suggest that "the greater pressure on twin parents' time is primarily responsible."

"It's generally a question of [the parents of twins] being much more harassed," they say. At the same time, twins form a coherent unit, giving the impression that they do not need as much attention as many other children. But, Lytton has found, a reduction in parental interest "means an impoverishment of the children's environment."

The twins chosen for the sample represented essentially all the male sets born in Calgary over a two-year period. Only boys were chosen in order to eliminate the sex variable. Single boys were selected from child health clinics. All the singles chosen had siblings within three years of their age. In a variety of tests and in-home observations, children were rated in vocabulary, positive and negative actions, attachment, independence, compliance, maturity of speech and internalization of standards—the degree to which they had adopted the parents' rules, without having to be reminded. Parents were rated on the consistency with which they enforced rules; use of reasoning; warmth; use of psychological rewards (praise and approval); use of material rewards (candy or toys); verbal-psychological punishment (criticizing, threatening, temporary withdrawal of love); encouragement of independence, and support of certain types of dependent behavior.

The most important parental difference in the results, say the researchers, was that the mothers and fathers of nontwins simply spoke more to their children than twin parents did to theirs. Singleton parents also engaged in more control behavior generally. They used more commands and prohibitions, more reasoning and more suggestions, and such mothers were more consistent in enforcing the rules they had laid down. Parents of nontwins in addition demonstrated more affection toward their youngsters and displayed more "positive actions."

Among the children, twins tended to speak less, as measured in rate per minute and as a percentage of all their actions. Their speech was also rated as less mature. Twins scored lower in internalization of their parents' behavior standards. The researchers found that the singletons' vocabulary IQ was significantly higher only where mothers did not attend college; the opposite was true when mother had attended college. Finally, singletons engaged in more total actions than did twins.

"We must conclude that twinship . . . has a considerable impact—possibly a greater one than social class—on chil-