

# Nature versus Nurture

ORMONDE

GENETICS — the science of heredity — is one of the fields in which there has in recent years been an “information explosion”. A spectacular milestone in this development was the Crick-Watson discovery of the double helix structure of the DNA molecules of the genes. We were getting closer and closer to the secret of how out of a tiny matrix a whole complex organism comes into being, and how traits are passed on from parent to offspring.

All this has emboldened geneticists to predict the day when human heredity can be planned. They say hereditary diseases and undesirable characteristics can be weeded out by scientific selection of genes. Deep-freeze units would keep the genes on hand for activation at the right time and in the right combinations.

For most of us, this prospect seems a “Brave New World” nightmare, and public opinion is surely overwhelmingly in favour of the present system of having children, even though it might be imperfect. Most of us do not think anyone has any right to “play God” and decide who shall and who shall not live, but this would not be the first time planners have sneaked in and put it over on us, even against public opinion.

Let alone the question of whether it *should* be done, there is the question of whether it *can* be done. An article about the forecast of geneticists on planning heredity appeared in a scientific journal sandwiched between two other items: one was on the unexpected and widespread damage done to the living environment by the mass use of insecticides on plants; the other was on the unforeseen and harmful long-term effects of such wonder drugs as penicillin, contraceptive pills, etc. Compared to genetics these are relatively simple matters — and in the face of such results, can scientists be so buoyantly confident about tampering with a vital matter that is infinitely more complex and unpredictable?

Although we still know all too little about it, for a long time a controversy has been waged on “nature  
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versus nurture”—that is, heredity versus environment. One group says that heredity traits are fixed and determine behaviour regardless of the environment; the other says that the environment is the crucial influence regardless of heredity.

Adding zest to the controversy are the political implications. Surveys\* have shown that liberals tend to the “nurture” side, and conservatives to the “nature”

side. There is even a change toward the appropriate side when people change political beliefs!

The reasons may be seen; liberals generally want change and reform, believing that environments mould people; conservatives do not want change and prefer to believe that those on top are there because they are naturally more fit, and those on the bottom are less fit.

An extreme leftist stand on nurture is that of Soviet Russia, where a controlled environment was supposed to have produced a new kind of human being—which it has not. An extreme rightist stand on nature is that of the ancient Egyptian Pharaohs who thought they were so superior genetically that they practised inbreeding—but they were knocked off their pedestals just the same.

Ashley Montagu, in *Human Heredity*, has pointed out that the nature versus nurture controversy is an artificial one; that there can be a living organism only when there is the right interaction between genes and their environment. The mother’s womb is the first environment. Without this environment no human organism would develop; without the genes, the environment would not produce an organism. And the environment goes on interacting with the organism throughout life.

A recent entry in the nature-nurture controversy has been the theories of a Californian professor, Arthur R. Jensen. He looked into the I.Q. test results of various school children and found that negroes as a group came up with less abstract reasoning ability than whites or orientals. He concluded that intelligence is a genetic factor, and that there are differences among the races of man. The storm this has evoked in racially-taut America—and even internationally—may be imagined.

But with loaded emotions, all hinging on statistics, no-one seems to have asked whether the conclusion is scientific, even granting the validity of the statistics. To say that a group or race comes out a certain way on a test is one thing. Professor Jensen is an educational psychologist, not a geneticist; he has not studied the genes involved; he simply jumped to a conclusion. Had he used some reasoning from his own discipline, he might have asked, “have not negroes been subjected on a widespread scale to environments which do not favour the development of abstract intellect?” Indeed,

\*Reported in *The Nature-Nurture Controversy* by Dr. Nicholas Pastore.

would it have been *intelligent* of the negro to have developed abilities he could not use and for which he would have been simply slapped down?

Even a cursory look at history could lead one to startling "genetic" conclusions. The general behaviour of the white race around the world strongly suggests that it is the weakest of all races in a sense of morality; that it supplements this natural lack with a heavy leaning on its Bible, which it has preached to other races without being able to practice its precepts; and that other races are far ahead of the white race in a sense of friendliness, hospitality and fairness, without the prop of a Bible. But it would be wrong to say this is a genetic matter. Rather, it was historic conditions, a greater exposure to different cultures, and consequently a keener sense of competition, that induced the white man to spread around the world and to do some rash things. *Some* white people have shown a high sense of morals, proving that such a development is possible, just as Jensen's study showed that *some* negroes achieved a high I.Q., showing that this is possible, too.

Whatever the genetic differences between one person and another or between one race and another, and whatever the true ratio between nature and nurture—20: 80, 50: 50, 80: 20—people are people, coming into the world in the same way and having basically the same needs. They seem all right to me.

Genetics helps produce a very varied human race—which makes it more interesting, I daresay, than any scientist could plan. Suppose they could plan a "perfect" human being, what would they do with him? Suppose he were reviled and denied opportunities wherever he went, how should he behave? (*A propos.* an interesting motion picture was "The Loneliness of the Long-distance Runner" — it dealt with a Borstal boy who was a good runner but who deliberately lost a race because he did not see why he should win. His racing genes were undoubtedly fine, but he did not have the proper motivation.)

Whatever genetic differences there may be among individuals, does it not ultimately make the most sense to let them find their own level in the best and freest environment possible? Would we not be spending our time more fruitfully in making way for new human beings as they come, making the world a better place

to live in, than in trying to solve human problems by tampering with the extremely complex ultra-microscopic genes?