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Genetic Intervention Is a Way Of Improving Our Species

"TAMPERING WITH human genes" is a lurid cliche I have encountered over and over again in discussions of the prospective applications of molecular biology. It has been brought about to some extent by those of my colleagues who, quite rightly, wish to encourage wider public appreciation of the importance of the new biological science.

In a sense, we may be competing with the physicists, whose importance for society is emphatically punctuated by the imminence of the Bomb. "Tampering" is, however, a rather loaded and irritating way to describe an intervention as likely to be constructive or harmful as any other tehnical advance.

We might as well call education the process of "tampering with the human environment."

Why this special anxiety about gentic intervention? If it is irreversible, we should of course worry about the implied commitment of the evolution of the species. But when we reach that stage of scientific sophistication, there should be no greater difficulty about reversing the evolutionary mistakes than there was in making them in the first place.

Nor can we trust natural processes always to produce the most admirable of biological types. Indeed it is hard to point to any part of the human scene which is not thoroughly permeated with completely artificial stresses on the evolutionary process, the byproduct of civilization.

Without rational intent, we influence the environment to change our mutation rates, and much more important, to create rapid convulsions of different rates of reproduction of different kinds of people.

FURTHERMORE human self-consciousness may often operate to inhibit natural evolutionary change. Thus if a child were to display a conspicuous but fundamental "favorable" mutation he might be so rejected as to overwhelm his advantage.

Imagine, for example, a child with four functional arms and hands, and the brain to manage them. A parent might well be advised to have the extra limbs amputated, despite their biological advantage, so the child could grow up as an accepted member of the community. The example merely illustrates the way in which striking deviancy is outlawed in the context of human culture, though it might have served as an important advance at an earlier stage of human evolution.

In fact, since socially coordinated people (not mad scientists) will be the decision-makers in genetic intervention, there is no reason to expect them to ignore these influences of the community. Such interventions will have to be gradual to be acceptable and hence useful. A few points in IQ for a generation is as much as we can stand in a realistic system of human improvement, and this gives the time needed to reflect on what progress really consists of.

In fact, the anxiety about genetic intervention is almost certainly not directed at anything really likely to happen. We probably will welcome any chance to alleviate the impact of mongolism, schizophrenia, diabetes or dwarfism. Probably what is more alarming is the abstract concept that "man will control his own destiny." Man as manipulator is too much of a god, as object, too much of a machine.

FREUD ONCE commented that a grave difficulty in the acceptance of psychoanalysis was universal human narcissism, the infantile self-love that defies the scientific dissection of human nature. To understand this makes man less magical to the primitive mentality. He pointed out three major historical assaults on that self-concept, each of them violently resisted in their time: the cosmological, when the earth was displaced from the center of the universe; the Darwinian, when man was shown to be part of all living nature and to have evolved from it; the psychological, when man was shown to be unable to know all that transpired in his own mind, so many transactions being unconscious.

Some of the more panicky reactions to genetic engineering, and their characterization as "tampering", are, no doubt, very closely akin to the anxiety and derision that greeted Darwin's formulation of man's evolution from ape-like forerunners. How would an ape-prophet's relatives have greeted his predictions about the upsets their species would soon experience?