
Eugenism in Theory and Practice

The 19th century witnessed the end of a number of old theories which dominated the scientific field long before the dawn of our scientific age. One of them is the theory of spontaneous generation which gave way to the discovery of microbes by Pasteur (1822-1895) who was able to prove that contagious diseases and other forms of infection were due to microscopic organisms called microbes. Another theory which became obsolete was that of the fixity or unchangeability of forms or essences of living creatures which was replaced by Darwin's theory of evolution (1859). According to this biologist, change in living forms is a condition imposed by "natural selection", which means that nature works to insure the reproduction of the organisms most fitted for life in their environment and the elimination of those unable to adapt themselves to it, which thus tend to disappear or become extinct, like dinosaurs and mammoths. Mendelism, the system of inheritance elaborated

by Mendel (Austrian, 1822-1884), did away with the "dictatorship" of heredity, showing the complexity of this science and the impossibility of achieving, through the application of its laws on humans, the same results obtained in the field of plants and flowers.

This same century saw the rise of a movement called "eugenism", derived from "eugenics", a science which aims at the improvement of the human species through the control of human mating. At the same time, another movement, called "malthusianism", showed up as a complement to eugenism. It was inaugurated by Malthus (1766-1834), who recommended the limitation of births in order to prevent poverty and famine. The idea was taken up by Galton (1822-1911), a fervent adherent of eugenism and originator of this term as well as that of eugenics.

Galton believed that the quality of human beings should be improved by applying the laws of heredity but, since acquired characteristics, as shown by Weismann (1834-1914) cannot be inherited, the improvement should be made by encouraging the multiplication of gifted individuals. This is done by natural selection, as already affirmed by Darwin but the action of nature is slow and irregular; hence it should be accelerated through man's intervention, which can be done in two ways: first, encouraging highly talented people to have a large progeny; second, limiting the number of children of average people and sterilizing the mentally retarded and other handicapped individuals.

In the meantime, the theory of racial segregation began to spread, affirming the superiority of certain races and recommending the forbidding of intermarriage between superior and inferior or undeveloped races. Books dealing with this topic were circulated, dividing the world population into three races: the negroes, the mongoloid or yellow race, the caucasians including the Aryans, the Germans, the Anglo-Saxons, the Alpines, the Mediterraneans. The superior groups included the Germans, the Anglo-Saxons and other inhabitants of central Europe.

Eugenism discouraged intermarriage between superior and inferior groups. Emigration from underdeveloped countries to developed ones was limited. In Indiana, U.S.A., a law decreed, in 1907, the sterilization of the feeble-minded, the epileptics, the

criminals, the sexually perverted, the alcoholics and the "degenerate patients." In 1935, in California, ten thousand were sterilized. The U.S. Government issued a law limiting the emigration to the States of those coming from Eastern and Southern Europe because they were supposed to carry the genes of inferiority. The term "gene" means "the element of the germplasm that transmits a hereditary character and forms a specific part of a self-perpetuating acid in the cell nucleus." Cooperation between genetics and eugenics increased and genetic councils were created to advise spouses. However, the abuses committed by the Nazis who subdued eugenism to the service of political issues reduced the enthusiasm of eugenicists.

Another drawback appeared when a British geneticist, Lionel Penrose discovered, after meticulous research, that feeble-mindedness was not a uniform disease, determined by one gene, but was the result of a complexity of causes. This discovery showed the futility of anterior sterilizations.

The slow results obtained through the selection of genes failed to meet the expectations of eugenism enthusiasts. Interest in the movement declined until it acquired adherents like Herman Muller (1890-1967), an American geneticist who denounced the campaign which attributed racialism to promoters of the movement and initiated a system of positive activities based on the notion of germinal choice. The use of artificial insemination favored the reproduction of individuals most endowed physically, mentally and morally. A sperm bank was created by means of donations contributed by the multi-millionaire Robert Graham, for the purpose of allowing the inter-fecundation of spermatozooids and ovules of individuals with an intelligence quotient over 140.

Clinical Genetics was taught as a medical discipline when in 1952 the first Chair for this science was established in one of the French universities. Genetic consultation centers developed in many countries of Europe and America. Consultation became more significant when, in the seventies, the first technique of prenatal diagnosis of fetus anomalies was developed. This technique permitted an early detection of those anomalies during pregnancy, leading to therapeutic abortion. This operation permitted also the detection of the sex of the expected child.

The following are some of the diseases detected by means of prenatal diagnosis: mongolism (in 90% of cases), hemophilia, chorea of Huntington, falciform anemia, congenital malformation.

Prenatal diagnostics are usually performed in cases of "risky pregnancies", when couples are informed about the risk they might incur by planning to have children. But in the majority of industrialized countries, a systematic control of pregnancies is made in order to check the development of the fetus and detect eventual malformation in the nervous, renal or cardiac systems.

Prenatal diagnosis of anomalies, encourages couples to attempt risky procreation, because they know that, if the fetus shows any malformation, it will be revealed and abortion will follow. But it may happen that, in some cases, an immune and sound child may be himself a carrier of a gene which will transmit the disease to his progeny.

Whatever the consequences, this practice has allowed biology to have its share in promoting eugenism.

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