HOW FAR TO GO IN GENETIC ENGINEERING AND GENETIC MANIPULATION

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Genetic engineering and genetic manipulation are dealing with the most secret and specific part of each living organism. They have opened a wide door onto a domain which has remained obscure until now, but which is full of promise for those desiring perfect knowledge, and full of trepidation for those afraid of the unknown. People working in this field are facing a very fierce challenge to become the primary decision-makers. They are generally the ones most aware of the ethical problems involved and establish their own strict rules via ethical committees to avoid abuses. In this context, they should be regarded as very conscientious and as being of high moral and ethical integrity.

Genetic manipulation is probably the most hopeful discovery humankind has made during this century. The world needs increasingly more food and assistance in the fight against disease and infection. Genetic techniques are already offering good solutions to many of these problems and to fundamental scientific research in a manner that is most likely harmless to nature and the living world. Although these innovations cannot be included in any existing general moral and ethical code and somehow offend the millennial traditions of human beings, they nevertheless give us the chance to explore and to control the infinitesimally small, something ordinarily out of reach of human senses, and help us shed our position as the hostages of nature.

It is up to humankind to heed and avoid the banalisation of such applications so as to safeguard the species from possible fragilisation arising from standardisation should germinative cells be manipulated for this purpose. The question is: How far to go in genetic engineering and genetic manipulation? The answer to this question should be: as far as possible until total mastery of the explored domain for the improvement of the destiny of the living world, and particularly of humankind is achieved.

There is, of course, a kind of panic among lay persons in face of the unknown and some people are ready to pounce on the subject. But no one should be allowed to block so promising an evolution by initiating inappropriate legislation rather than encouraging the improvement of genuine knowledge.

Biotechnology to stop chemical pollution?

Improvement in agriculture is needed to produce more and more food to avoid hunger in the world. For this purpose, many harmful substances such as pesticides, antifungi, etc., have been used in developed and also developing countries without respect for either human health or nature and the environment. Genetic engineering and biotechnology are increasingly involved in improving agricultural production. Although it would not appear useful to set up excessively strict rules for the use of these technologies, their consequences nevertheless need to be thoroughly analysed in the global aspect of well-being for all living beings in nature prior to their use on a large scale. Science and technology, together with all the current improvements, must be exported from developed to developing countries as has already been done with the economic crisis (totally), waste and pollution (partially). Care is needed to protect what can still be protected, prevent pollution from engulfing the world and to clean now the already heavily polluted parts of the Earth and the seas.

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