

# Kazimierz Kloskowski

---

## Does biotechnology need bioethics?

---

*Studia Philosophiae Christianae* 35/1, 5-17

---

1999

Artykuł został zdigitalizowany i opracowany do udostępnienia w internecie przez Muzeum Historii Polski w ramach prac podejmowanych na rzecz zapewnienia otwartego, powszechnego i trwałego dostępu do polskiego dorobku naukowego i kulturalnego. Artykuł jest umieszczony w kolekcji cyfrowej [bazhum.muzhp.pl](http://bazhum.muzhp.pl), gromadzącej zawartość polskich czasopism humanistycznych i społecznych.

Tekst jest udostępniony do wykorzystania w ramach dozwolonego użytku.

KAZIMIERZ KŁOSKOWSKI  
*Wydział Filozofii Chrześcijańskiej ATK*

## DOES BIOTECHNOLOGY NEED BIOETHICS?

Introduction. 1. The question of Philosophical and Methodological Circumstances Affecting Genetic Manipulations. 1.1. Meanings of bioethics. 1.2. A mistake mingling of the researching fields. 1.3. Evaluations the key bioethical solutions. 1.4. Definition of a person. 2. Searching for the ethical rules for a geneticist. 2.1. Bioethics of „facilitation”: 2.2. Bioethics of „limitations?”. 3. Teaching geneticists and their actions. 3.1. Bringing up young people in tune with nature. 3.2. Bringing up young people in empathy for others. 3.3. Inter-cultural education. 3.4. Teaching modern technologies. Conclusion

### INTRODUCTION\*

The development of genetics and molecular biology has introduced to our everyday language many terms and concepts. Among these, we can find the following: biotechnology, gene therapy, genetic discrimination, genes and crime, genes and homosexuality, genetic engineering and DNA recombination in vitro, ways of altering information, transfer of genes ex vivo and in vivo, gene treatment of genetic disease, gene reinforcement, genes and cancer, and many others.

All such terminology conveys one meaning to a contemporary man. It means hope, or the key to the comprehension of his existence and longevity, which he can possibly achieve by guarding himself against diseases, and thus postpone the time of his death. By and by, genetic research becomes a cure for the woes suffered not only by one individual but all mankind. No wonder that current news about the discoveries of genetics and especially about genes encourages everyone not only to discuss but

---

\* Artykuł przygotowany w oparciu o wykład przedstawiony na XX World Congress of Philosophy, Boston (USA) – 11.08.1999

also to assess the research and achievements accomplished in the preserve of genetics. Such discoveries are to be considered from the viewpoints represented by the following domains: 1) philosophy and ethics, 2) biology, and 3) religion. Amidst this daily continuous flow of information, we must adhere to principles based on logic and methodology. Otherwise, we might all end up with a bable of voices.

## **1. THE QUESTION OF PHILOSOPHICAL AND METHODOLOGICAL CIRCUMSTANCES AFFECTING GENETIC MANIPULATIONS**

### **1.1. MEANINGS OF BIOETHICS**

Bioethics can be defined as the ability to ask wise and well – justified questions about genetic manipulations in such a way that our knowledge of human genomes should never harm mankind, for example by discriminating workers with less favourable genomes. The answer to such questions must be provided by bioethics as well. Let me focus here on the various ways we can look at bioethics. Some scientists regard bio-ethics as a particular kind of natural science which is concerned with human behaviour and physical fitness. Treated as such, bio-ethics replies to questions similar to those answered by physics, biology, and sociobiology. Methods applied here in study resemble those used in sciences of nature.

Other scientists, including myself, view bioethics, as the domain of ethical philosophy, the aim of which is to establish both the criteria of evaluation and the moral norms of all actions performed by man throughout his life until his death.

These two standpoints will bring about different replies to the question of who is supposed to decide whether various manipulations should be tried, if such a question is answered respectively by the two types of bioethics that I have just described. The first type of bioethics, the one being the domain of natural science concerned with human behaviour and physical condition, regards ethical norms from the perspective of biological sciences. Thus, morally acceptable in this view becomes everything that is required for the further development of biological sciences.

### **1.2. A MISTAKE MINGLING OF THE RESEARCHING FIELDS**

Here, I would like to emphasise that certain claims, though well-stated and properly justified as far as natural sciences are concerned,

cannot fit ethical thinking. If we overlook this problem, we risk making a methodological mistake through confusing two major preserves of science, namely: biology and ethics. The way of reasoning typical for sciences of nature must never be applied to ethics. This methodological fact can never be changed by any statistical data claiming the efficiency of genetic interference or by anyone's good will to save what still seems to be standing a chance of survival. In other words, there is no possibility of proving the worth of such manipulations with the help of any possible form of statistically calculated effectiveness.

### 1.3. EVALUATIONS THE KEY BIOETHICAL SOLUTIONS

At this point, we need to realise that many people undertaking genetic manipulations lack enough understanding of ethics and philosophy required to balance their profound education in the preserves of genetics and technology. While their knowledge of genetics is enormous, their understanding of ethics and philosophy remains virtually non-existent. In consequence, they are not free from committing a methodological blunder. We must therefore insist that both experimenters and patients, or guinea – pigs, are not regarded as mere objects but as rational moral subjects involved in an experiment. Moreover, moral subjects should not only pursue scientific objectives, such as those which aim at improving our existence, but, in the first place, respect moral norms. Furthermore, moral subjects should be responsible for their actions. Nonetheless, we need to admit that subjects are free; that is to say, they are left free to make unrestrained decisions and to assume various attitudes. Their decisions, however, are determined by anthropological and axiological conditions.

Let us focus now on the scientific perception of man, both with his psycho-physical structure and as a person. Here are a few worthwhile questions related to this problem: What do geneticists regard as the highest value? What do they want to defend and what to abandon? What set of values are they guided by in their research?

We can call dangerous a situation where scientists cannot define the values they are following in their studies. Even worse looks the problem when, because of their ignorance, they mistakenly place their set of values on the wrong research level by putting their trust completely in their *acquired* knowledge of nature. Axiology and anthropology with,

it is question about the freedom of scientific research lie totally out of their concern.

#### 1.4. DEFINITION OF A PERSON

Now, I would like move to the definition of an individual. In the 5<sup>th</sup> century, Boethius was the first to provide the classical concept of an individual. In his description, an individual is „rationalis nature individua substantia”, which translates as an individual substance of a diverse nature. St. Thomas, however, treated an individual as „subsistens in natura intellectuali”, which means a creation solely existing in a rational being.

I suppose that for a lay person, these two definitions could mean more or less as follows:

*Individual = self - dependent individual + rational nature*

Which in turn could be interpreted in the language of genetics and biology as

*Individual = individual being + culture*

According to biology, every individual being is the outcome of the interaction between their genetic equipment, or genome, and environment. As a result of this interaction, we receive a given individual with their biological features, which has developed in a particular way that defines this person's phenotype. The phenotype is a fully realised genotype. For instance, suppose a particular person was genetically predisposed to grow tall, if undernourished she or he might never reach that height despite their genotype. Likewise, an individual being or a phenotype while experiencing cultural phenomena such as ideas, religions, and works of art, thus learning systems of values eventually have become a cultural phenotype or a person. Hence, we can say that at the cultural level the way of thinking conducted by a scientist may clash with a train of thought followed by a patient, who at that moment is undergoing all the manipulations performed by that scientist. Between them there must exist a moral link of physical and personal relations which does not allow for the kind of freedom where human beings are made to suffer unrestricted manipulations. The human and patient, in the context already mentioned, is the goods left at the experimenter's disposal. This form of relationship will be ruled by the principle of manipulating others at the gene level as long as the experimenter gives priority to moral aspects over all her or his scientific needs of explo-

ration and discovery. The purpose of such a discovery may be to satisfy someone's curiosity.

## 2. SEARCHING FOR THE ETHICAL RULES FOR A GENETICIST

I would like to apologise here that the principles which I am about to outline will be left without comments because of the time limit of my presentation that I must observe. They can be found in the materials that I have had printed specially for this conference.

Let us move now to the introduction of fundamental biological solutions, which is the necessity of making primary choices. I mean here the choice between „the ethos of facilitation” and „the ethos of limitation”. On the grounds of „the ethos of facilitation” one accepts everything that makes man's existence more comfortable. By contrast, „the ethos of limitation” claims that there are boundaries that can never be crossed by people. This principle should never be overruled, even if crossing the boundaries were to favour the development of science, civilisation, or technological advance. „The ethos of limitation” creates the norms which always bind the most humanitarian aims independently.

### 2.1. BIOETHICS OF „FACILITATION”

**2.1.1.** The rule of the primacy of the civilisational and technical development and of its rise over man's ethical activity. This is the aim which justifies and explains all the attempts of the genetic manipulation (biotechnology) according to the dictum: „the end justifies the means”.

The rule is not the end the mean to realise it. The end here is a progress itself, but when the progress does not serve to develop and to enrich man's internal life and the relations with his surroundings - in fact the end does not mean progress. So, the development of science is something undoubtedly favourable, it allows to improve „being and consciousness”, at the same time it is not the goal in itself: it is to serve a man's development - the moral and intellectual development, not only to treat disease.

The end, even the most favourable does not justify the means. But to assent it one must assume first that a deed has got its internal moral quality, independent of circumstances or intentions. Who does not assent it, will treat everything as an indifferent tool justified by some aims.

**2.1.2.** The achievements of genetic manipulation (science in general) become the norm of the ethical activity by blending two domains: of ethics and of science.

It is difficult to imagine such formulating of the laws of science which would be the normative formulation. Science, the laws say simply how it is and not how it should be. One can ask if anyone may treat scientific achievements as norms - for me it is a nonsense. In such a condition, the rule 1 would be close to the rule 2 because the norm becomes not the result of research, but all which leads to it.

However, assuming some understanding of the result of research as a norm 1 figure if there is not a bit of truth in that rule. Science explores the laws of nature, to which a man adapts for his direct (for example: health) and indirect (protection of the environment) good. Although we cannot mingle the laws of nature with the moral ones and the particular sciences play role only supplemental, we cannot omit their results, otherwise we face the danger of building the unreal world of moral ideas. In the concluding sentence one should strongly underline the postulate of the methodological separation of the cognitive spheres.

**2.1.3.**By virtue of their relationship, man and nature are treated instrumentally, as objects.

A man, in reality cannot be either a mean or a tool, this is against his dignity which is rooted in his intelligence. But nature suffers from lack of the intelligence, it also has no free will - so it may and is used by man as a tool. This man's activity is, of course governed by some moral laws - one is not allowed to destroy nature, waste it or bring it sufferings (*vide*: widely commented recently case of medical experiments on animals) but nature is not here the aim but always the mean. Even in the activity of protecting nature, nature is not the aim but a man whose physical existence is endangered. (this means - „the protection of the environment of a man” and not „the protection of nature”. This is the conclusion to the range of the rule.

„Relational character”. Undoubtedly a man in himself is a great value, but there is much truth in (excuse me the inexact formulations). Buber's or Rahner's suggestions that a man creates and develops in the relation with the Second: first of all, with the absolute, but also with another man. I do not know if one manages to join the language and content of the dialogical (relational) conception on a person with the classical attitude to it, but I do not mean that. I have just wanted to say that the social nature of a man, makes it that somehow he is (always) seen in relation to another one. Moreover this relation cannot be the „using” but „showing” the riches of a man's internal nature - a fundamental, innate value.

**2.1.4.** The estimation of activities related to genetic manipulation depends on the situation in which such activities take place.

Depriving a deed of its internal value destroys the foundation of the moral order both in the individual and social spheres. If situation or circumstance is the progress of knowledge. The rule 4 is to be led to the rule 1.

**2.1.5.** Ethical norms are acceptable provided that they can be applied in science within the boundaries of the whole system of values as long as they serve temporary purposes.

The ethical norms are only acceptable if they have „adopted” to science but not in the frame of the whole system of value and only some of them are enough when they are used to immediate goals.

In that principle we hear the echo of the postulates from the conference of UNESCO in Varna (1975). They wished to create a new ethics adjusted to science, „cut” to the needs of the coming future”. This ethics was supposed to give the achievements of science to man and society to be at their service. That kind of recommendation includes almost everything, for what that service concerning „man and society”. Here, the goal of the research is not even outlined unnecessarily one aims here at the progress of knowledge. And there is not even the Spencer’s idea of development-reduced to the biologism but well precised.

**2.1.6.** All is done that can be justified rationally, following the choice of a lesser evil. Hence, there are almost no limits to research conducted by genetic manipulation. Even if such do exist, sometimes they are easily crossed in certain circumstances.

I assume that there is the principle of indiscrepancy; I also assume that ethics is, speaking the language of logic, compact and complete. In this case all which can be proved rationally in ethics is allowed - since we cannot prove contradicted sentences. The whole reasoning would be correct if we impose on ethics all the logical - methodological rigidities (first of all, we will bring ethics closer to the deductive system), of what I am not entirely certain. The fact is, however that ethics chooses those principles of activity which are sufficiently justified and rejects the others.

One may study this conclusion deeply (and eventually refute it). I will leave it as it is. One may also consider the rationality to which the principle 6 refers: the rationality of philosophy, and ethics is not tantamount to the rationality of science. If someone mingles the spher-



res of cognition he justifies rationally and scientifically what can be justified philosophically.

The mentioned norms, undoubtedly give the possibility of genetic manipulations leading to some kind of „absurd” (that is, the creation of people of the same, fitting genetic features), offer facilities for examining human societies, their biological and productive values. But at the same time the diagnosis of diseases on the basis of a genetic examination may turn out to be doom for those who have just acquired the information. They might threaten their sense of life and even their families’ life. Examinations as such, although being made for the good of the person examined, de facto in the framework of the accepted bioethics „facilitation” may though not need to serve different organisations, that is various insurance firms and institutions to „haras” a patient. As a result the ethical rules are passed on to the sphere of biological science and interpreted from its point of view. Acceptable ethically is all which is desired when considering biological science and development. I mean here both the means and the end. Ethics becomes subject to science, in this case-genetics. The reverse relation - genetics dependent on ethics, allegedly limits and enormously delays any development of genetic engineering. The attitude mentioned here treats science as an omnipotent and omniscient institution.

The ethical question or a general human one is reduced to a minimum and sometimes excluded from the intellectual interests of a researcher. It is most important to discover as much as possible and through one’s discoveries astound the world. After all, even employment of the most effective techniques will not make a beneficial institution out of genetic manipulation, eliminating all the problems and troubles. Quite the reverse. If we do not treat genetic manipulation as means and tool useful for man and submitted to the value of a person, man may not before long, stop understanding the sense of his living. Efficiency of the natural thinking is impressive but only in the sphere of the natural science. It does not need to be the same in some other spheres. Because of a threat of a methodological mistake (mingling of the two cognitive spheres: natural and ethical), we mustn’t use the reasoning typical of the natural science in ethics. This fact can not be changed either by statistical data on efficiency of some particular genetic interference or good intentions of saving of what seems to be possible to save. All attempts to

ignore this obvious requirement of not mingling the researching spheres, are - according to logic and cognitive methodology - simply misleading. After all, the fact that most genetic interference succeed on a sufficient „argument” for their necessity. By estimating the efficiency statistically we can not prove the ethical value of such manipulations.

Certainly, the efficiency of these interference is going to increase - I hope - but still this will not solve the ethical problems. Ethical value of these manipulations is not, and it can not be naturally estimated or reconstructed. Opponents to such a conclusion e.g., Jacques Monod, refer to so-called ethics of knowledge<sup>1</sup>. The main value in this ethics, is the objective knowledge. But we all know that- man's knowledge of the world is not only gained owing to science but also owing to philosophy, art and religion. Consequently, the ethic of knowledge can not explain fully the world and the man and hence the complicated relations between them, by means of the genetic engineering technique spelling.

## 2.2. BIOETHICS OF „LIMITATIONS”

The kind of bioethics does not only aim at formulating some indications, advice and incentives but it establishes some imperative norms and explicit moral verdicts to follow for genetic manipulations, including the knowledge of the factual state of a thing.

**2.2.1.** The possibility of conducting genetic research on the basis of genetic manipulation is limited by the rule of the priority of man's good over his freedom.

Freedom is one of the most important good of a man - so what is the primacy of good over freedom? It seems that we should state it clearly that good is the good of the subject being researched and freedom is the freedom of a researcher's.

The man's good by itself should be better defined: surely one is allowed to want physical evil for itself if it brings about great intellectual good. Threatening others with physical evil is secured by their argument (see the principles securing the experiments on people).

---

<sup>1</sup> J. Monod, *Le hasard et la nécessité. Essai sur la philosophie naturelle de la biologie moderne*, Paris 1970, rozdz. 9.

**2.2.2.** The visual psycho-physical and individual structure of man, as well as his dignity (autonomic, not relational) and non-instrumental treatment of nature constitute the foundation of man's conscious activity within the framework of genetic manipulation.

We should remember that the optic foundation for ethics needn't be „ours”, the foundation accepted only by me. We may build other man's metaphysics and draw other conclusions from it. Hence, if there is something true in this principle, it is surely the implication: „if it is a person, it must be morality” and not consequent: „morality”.

**2.2.3.** Ethical norms<sup>2</sup> impose limits not only on different possible ways in which genetic manipulation can be used but also on science as a whole. In other words, ethics limits the progress of research.

**2.2.4.** In its most profound sense, responsibility for genetic manipulations already conducted requires addressing the highest value of all (as for myself, it is God Himself).

Very important condition which I will formulate in a form of a question when I do not refer to the highest value (everyone acknowledges such value, because everyone has got a hierarchy of value) aren't I responsible? Or am I responsible only when I refer to values - never mind how they are! We need to answer it as simple as that: my responsibility for my deeds must always regard the highest human good (although the good as such and at least its hierarchy is not precise enough yet).

**2.2.5.** The objective of man's actions within the field of genetic manipulation is to do all good and no evil. No one can ever justify moral wrongdoing.

The principle justified the fact that the aim of science is good. But isn't it only the physical good? If the answer is positive it will be difficult to balance for example. The principle of primacy of integrity over a part or principle of the double effect. If we aim at achieving moral good or intellectual one then the physical evil is justified, but when we direct it against ourselves or others - even if they clearly agree (about this I've said above).

---

<sup>2</sup> Możliwe kryteria: 1) w stosunku do ludzi (nie naruszać godności, indywidualności osobowej), 2) w stosunku do zwierząt (nie poniżać, nie zadawać bólu), 3) w stosunku do roślin, bakterii, wirusów (nie naruszać ewolucyjnie ukształtowanej równowagi w przyrodzie).

In order to accept the reflections delineated at points 1 and 2 we need to pay attention to bioethical education, which is a real emergency at the present moment.

### 3. TEACHING GENETICISTS AND THEIR ACTIONS

Because of the explicit difference in the understanding of bioethics there is a necessity to work out the sphere in the frame of which a modern man (being fascinated with the efficiency of the genetic experiments and the achievements of science and technology in general), would be able to evaluate his activity properly. Over imposing the normative definition of the bioethical solutions authoritatively as the only proper one could be understood by a modern man as a kind of an attempt to limit his freedom. At the same time the acceptance of the „facilitated” version of approach to the bioethical questions may become the threat, I mentioned earlier. It seems that a key to solving the dilemma is showing some possibilities of shifting the focus from the interpretations of description and nature and the static genetic experiments onto the normative ones. The possibilities of shifting are treated by me as the defence of a modern man against alienation and deprivation of the human dimension. After we have solved that problem we will - I hope - be able to understand and accept obligatorily the bioethical norms of man’s activity (“the bioethics of limitations”). So, in this fragment of my analysis I will try to make the order. By following the ancient Greek thinkers I will attempt to show the values of love and wisdom by referring to all the ethical choices being made together with any genetic manipulations.

Seneca claimed that the demand for long-lasting means to fight the ever-spreading evil does not exist so as to destroy it but to prevent it from winning. What means should be used to make modern man either take evil for what it is or treat it as the methodological errors of thinking?

Fundamental question, nowadays is correlating the two obvious facts. The first one refers to the definition of a man by Aristotle in the *Likeion*: a human being is an animal gifted with mind (*zoon logikon*). I stress here this animalism. The latter fact is connected with thinking, the ability to detect in casual relations of human doings (*gnothi seauton*). These facts are treated in an inferior way generally or accented subjectively. As a consequence modern man has lost the ability to differentiate sense from senselessness, beauty from ugliness, truth from lies and good from evil. „The best school - as Konrad Lorenz claims - where a young man may learn

about the sense of the world is a direct contact with nature. I can not imagine a human child with the normal inclinations which are natural and designed make a close contact with other living things, that is the great harmonious beings of nature, could interpret the world as something senseless<sup>3</sup>. That means to place man in nature during the whole process of education, because he is an integral part of it, and not to leave him out. Being placed in nature, seeing its beauty and harmony man learns relatively fast to react properly to the disharmony in his environment.

### 3.1. BRINGING UP YOUNG PEOPLE IN TUNE WITH NATURE

Immersed in nature and able to see its order and beauty, man can quickly learn to properly respond to any imbalance in human societies as well.

### 3.2. BRINGING UP YOUNG PEOPLE IN EMPATHY FOR OTHERS

Next step is - as it seems - to bring up young people to empathy. I mean to teach them emotional identification with other people's feelings, to co-feel the situation in which our relative has found himself. This emotional identification allows not only to understand another man's behaviour but to love all the living creatures. And that may become a unique katharsis<sup>4</sup>.

We should teach the young emotional identification with other people's feelings, to feel the situation in which our neighbours have found themselves. This emotional identification allows one not only to understand another person's behaviour but to love all living creatures. This attitude may become a unique catharsis.

### 3.3. INTER-CULTURAL EDUCATION

It is essential to realise that modern man is a wanderer. He does not live his life in one place. People migrate and create inter-culture on their way. Therefore, it is important „to learn” to appreciate one's roots, tradition and one's critical attitude to all novelties. At the same time we must know how to accept „novelties” which are valuable and how to abandon useless ones.

---

<sup>3</sup> K. Lorenz, *Regres człowieka*, tłum z niem. A.D. Tauszyńska, Warszawa 1986, 174.

<sup>4</sup> K. Lorenz, *Tak zwane zło*, tłum z niem. A.D. Tauszyńska, Warszawa 1976, 349.

### 3.4. TEACHING MODERN TECHNOLOGIES

The literature on this subject contains three technological areas: television, computers and broadcasting (i.e. data banks, e-mail, and mobile phones). Undoubtedly, the above mentioned devices enable us to educate from a distance. As a result, we witness the sudden creation of communication. However, there appears a problem of estimating such communication by its quality. It is obvious that such information conveys both good and bad ideas. For instance, on television there is some news which is false and even harmful. Besides, its purpose is not worth discussing at all. Nevertheless, to censor it is too late as the unfavourable signal has already been sent without any possibility of control. Now it is only up to the viewer to do his/her personal censorship. We may conclude by saying that if we teach man to judge information from the axiological and moral points of view, this ability will stay with him.

### CONCLUSION

To sum up, in the context of our observations, shocking yet at the same time clever and accurate proves the comment given by a Polish biologist W.J.H. Kunicki-Goldfinger. „Although according to physico-chemistry, the human and the pig look nearly the same, while regarding the issue of thermodynamic nucleic acids, the human still differs from the pig to a large extent. There are even some people who would never deserve to be called pigs”. The comments and observations that I have outlined here are to serve one major purpose: To reduce as much as possible the number of so-called pigs among people.