

## THE POINT OF VIEW OF SOME ECOLOGISTS CONCERNING THE EFFECTS OF HUMAN ACTIVITIES ON POPULATION HEALTH

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There are presented the definitions of ecosphere and anthroposphere and a comparison is made between how living organisms function in the natural ecosphere and humans in anthroposphere. The self-regulation and functioning of human populations, their current food structure, the negative effects of pollution, the occurrence of professional diseases, the tendency of apparition of new diseases and the expansion of drug use, over-technization, but also the continuation of wars (which exist only between humans). Human medicine is increasingly relying on synthetic drugs and has begun to use unethical techniques and treatments. At present anthroposphere tends to evolve in a way opposite to the principles of natural ecosphere which has emerged and been perfected on our planet for several billion of years.

*Key words:* Ecosphere, Anthroposphere, Medical purposes,

We are starting from the premise that the Man is a being which is the product of the evolution of life on this Planet. Like all the living beings, he is a part of the biosphere of Terra and has all its characteristics. The biosphere is the living part of this planet's shell – of its ecosphere – and it is composed from all the bacteria, protists, mushrooms, plants and animals which lived and still live today on the Earth.

We consider that the **ecosphere** is „*the global ecological system which integrates all living beings in their surrounding abiotic environment, i.e. the lithosphere, geosphere, hydrosphere and atmosphere*”<sup>3</sup>. So, Man is also a component of the ecosphere.

But, for over 7000 years, Mankind has been created its own sphere of influence, **anthroposphere**. *The anthroposphere (sometimes referred to as technosphere or noosphere) is that part of the natural and modified environment that is used by humans in their interest. Or, The anthroposphere is total mass of human-generated*

*systems and materials, including human population which interacts with all living and non-living systems of the Earth.* In present, the anthroposphere is created consciously, with tenacity, efficiency and, unfortunately, with a great degree of unconsciousness and self-centeredness<sup>2,5</sup>.

To better understanding the characteristics of living beings and humans in ecosphere and anthroposphere, in Table 1 are summarized the similarities and differences between them.

To give some examples about the current state of the anthroposphere, we mention the fact that the world's population has exceeded 8 billion inhabitants, that the need for spaces for human settlements increased, for new agricultural land, for communication ways (roads), industrial installations etc. were multiplied. The surface of the natural living shell has decreased significantly and continue to decrease rapidly. Moreover, the ecosystems that still exist are also degraded through their overexploitation.

Table 1

Comparison between the functioning of living beings in the ecosphere and of Man in the anthroposphere

Parameters	Ecosphere	Anthroposphere
Population size of a species	- In close correlation with the resources of the living and non-living environment	- Independently of resources, through chaotic overexploitation of the whole environment on the planet, on arbitrary, but still morally or economically justified criteria
The way of metabolic processes are carried out	-Strict dependence on available natural resources	- Natural resources - Human-created resources : agricultural, zootechnical, through artificial synthesis or through synthetic technological processes
The type of interactions with the abiotic and biotic environment	- Sense organs - Genetic and adaptive information -Extrasensory information - Biogeochemical cycles -There is no pollution; every-thing is recycled	- Sense organs - Sensors and technical equipments - Genetic and adaptive information - Extrasensory information disappeared - Historical experience (verbal and written) -The man produces pollution, which is recycled very difficulty or only partially
The way of perpetuating the species	- Reproduction at certain times of the year and only by the best qualitative individuals	- Exacerbation of the sexual process, which has become a target in itself - The absence of a certain period of year when reproduction takes place - Alteration of human genome - Selection based on arbitrary criteria - Male degeneration due to wars (the best individuals die), cultural selection -The lack of natural limit to the reproduction of human species will lead to overpopulation, with negative consequences

## WHAT IS MEDICINE?

It is defined in English Wikipedia as follows : *„Medicine is the science and practice of caring for a patient, managing the diagnosis, prognosis, prevention, treatment, palliation of their injury or disease and promoting their health. Medicine encompasses a variety of health care practices evolved to maintain and restore health by preventing and treating of illness. Contemporary medicine applies biomedical sciences, biomedical research, genetics and medical technology to diagnose, treat and prevent injuries and diseases typically, through drugs or surgery, but also through very diverse therapies such as psychotherapy, external splints and traction, medical devices, biological products and ionizing radiations”.*

Human diseases and health are determined by a wide variety of factors, the following of which are determined by various human activities :

*Preventing the natural systems of self-regulation of the imbalances that have arisen in the structure*

*and function of human populations.* Man has detached himself from the laws that operate at the planetary level in the biosphere and ecosphere, fact that affects itself as a species and his living environment in forms that are difficult to control. Currently, actions triggered by human mind predominate, to the detriment of natural processes of self-regulation and self-preservation, which are established in the ecosphere for millions of years, and which people neglect out because of unconsciousness selfishness (sorry we have to state this ...).

*Great changes in the dietary structure of all human populations.* As a result of the change and acceleration of food production and processing technologies, nowadays the variety of food products has extremely reduced. Primitive humans fed on more than 100 different types of plant and animal foods. Currently, in agriculture there are less than 20 plant species grown for food and less than 10 species of domestic animals. What is harvested from nature has small share in the daily human diet (may be an exception, but not for long, oceanic fish –

which are also drastically reduced from one year to the next). The impact on human health is determined by the chemical composition of the food animals are fed with, by the large amount of fertilizers and pesticides from plants and domestic animals as well as medicines and food preservatives for as long periods of time as possibly. In foods, the content of chemical substances that do not exist in nature, but are created by humans and are used to intensify food production, increases from one year to the next; these substances are not degradable, so they are pollutants. We are now moving on to the laboratory synthesis of the meat of some animals, to the intensive growth of cultivated plants, various additional substances are synthesized, used to create the most attractive aspects of food, to preserve many foods for long periods of time (e.g. the beef brought to Europe from Argentine), the use of unnatural substances or spices in the preparation of food products etc. For several decades it has been started the genetic modification of cultivated plants and animals. Is it known what are the effects of these genetic manipulations in the short and long term on the people who ingest the respective products?

*The negative effects on people's health caused by various types of pollution* (from physical, to chemical and now radioactive).

*The existence of more and more so-called occupational diseases*, determined by the various human activities that affect people's health. For example, those who work in the extractive industry, the synthetic chemical industry, those who work in toxic environments, those who sit still at work for hours and hours, those who breathe polluted air etc.

*The emergence of new diseases*. We start mentioning with covid-19, but may continue with ebola, diabetes, autoimmune diseases, Creutzfeldt-Jacobs disease, bird's flu and others. In the past, leprosy, plague, cholera, Spanish flu and others appeared spontaneously, naturally, just to reduce the overpopulation. Medicine has fought them and almost eradicated them. Now these diseases are almost extinct, but Nature creates and will create new ones for the same purpose : to naturally regulate the size of human populations (thing that we oppose by all means).

*The expansion of the use of drugs and natural of synthetic hallucinogenic substances*, is extremely dangerous; it only serves to exacerbate the senses of human population. But, its effects in medium and long terms are particularly dangerous and can determine the acceleration of the humanity extinction process.

*Overttechnicalization*. The development of science and the creation of increasingly effective techniques in all fields are realities we are proud of. However, we must not forget that their effects can be used for both good or evil purposes. People choose whether they want their own good, or their subjugation by artificial intelligence. For medicine, the technique is an extraordinary help. But it is now, also, at the root of wars and genocides.

*The wars*. In the past, fighting was only between men, using physical weapons. Later there were discovered weapons using gunpowder, then those with reaction and so on. But now they resort to chemical, biological, even climatic weapons. How far shall we go? How can medicine to counter the effects of these killing weapons, especially as they tend towards the creation of weapons of mass destruction? Can medicine do something to curb this human historical disease, which is war, which we keep talking about, but do not get rid of Is medicine prepared to deal with these new types of war?

All these destructive factors demanded heavily the medicine, which, however could not deal equally with the populations of different continents.

*The tendency to preferentially prescribe synthetic drugs*, most of them with serious side effects or insufficiently scientifically verified. And this is because of the manipulation by pharmaceutical industry of doctors and population, using different methods. In the last centuries, only medicines of natural origin, derived from plants and animals were administered. With the development of the synthetic chemical drugs industry, Big Pharma, in its economic interests, replaces the natural ones with the synthetic ones, no matter they are levorotatory (the natural ones), or dextrorotatory (those that do not occur in the composition of living organisms on our Planet and therefore cannot be decomposed naturally, because there are not special enzymes for them, so they remain and concentrate in human body). Gradually, people become more and more dependent on drugs, they take them anytime and anyway; accumulating in human body, it is not known how many are there and how we will get rid of them. Does anyone know the long term effects of chemotherapy, chronic diseases treatments, cancer treatments, diabetes treatments, if more and more synthetic drugs are used ?

*Distorsion of medical purpose through surgical treatments that do not conform to medical ethics and to the object of medicine*. We are referring to cosmetic surgeries, hormonal treatments, sex change and, more recently – and also the most

alarming – genetic manipulations caused by drugs containing modified RNA and nanomaterials.

The medicine also has its own aspects, which are to be reconsidered:

*Concern for life extension.* It is a „humanitarian” concern but it, coldly judged, is anti-human. The life span of the human body has a certain genetic limit which we try, by all medical means, to overcome. We have extended life duration by many years compared to the situation 1-2-5 centuries ago, but the fight is getting harder because the body’s cells are now known to have a genetically limited reproductive life. It seems we are fighting with windmills, because in this fight, no one escapes, and the medical maintenance, human and economic expenses are getting higher and higher. Is it worth it, or do we do it on ethical reasons. Are these concerns ethical, or simply selfish ?

*The concern to sterilize anything against „harmful” microorganisms* (bacteria, viruses). Biologists and virologists have known for a long time about the symbiotic role of many of these microorganisms with human body, thus ensuring its proper functioning. It seems that many doctors ignore this role. Secondly, too much sterilization reduces the human’s body ability to autoimmunize.

As it seems, *humanity*, by the way the anthroposphere is built now, *is on the sure path to the extinction of humanity on this Planet*. When and how, we don’t know. And we even don’t want to think about such a thing. In this context, the role of medicine must be rethought and acted upon accordingly.

## CONCLUSIONS

The negative effects of human activity that have strongly affected the ecosphere in the last century have generated and are yet generating radical

changes in people’s health and life. And medicine should have developed accordingly, everywhere, according to increased needs. This has not happened because political, technological, cultural or religious factors always intervene, randomly. It now takes precedence over the concerns of gaining money and power at any cost, without regard to the consequences on the common people.

Through the chaotic way in which the anthroposphere has been constructed, humanity is on sure path to self-annihilation. Natural contrasts, increasingly frequent and destructive, are a serious warning in this regard.

In this situation, the role of medicine increases and must be rethought on other parameters of presence and efficiency. Those who guide the destinies of Mankind are responsible for the way medicine will develop in future. And there are enough specialists in medicine who can formulate a strategy to follow.

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