

HEALTH AND BIOPHILIC TRANSFORMATION OF EDUCATION

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Abstract: *The author shows that also the human health is a reliable feedback indicator of a degree of proportionate relationship between culture (civilization) and the wider natural system. Of course education does not directly create conditions for the human health but it helps forming the man and culture. The education system can promote the change of the present predatory paradigm of culture to the biophilic paradigm, can influence how people behave to nature, culture and their own health. If we want to moderate and eventually overcome today's ecological crisis, we have to change the content of education and its aspirations. In view of that the author presents and comments on eleven theses of the new educational minimum in his paper.*

Key words: *biophilic transformation of education, health, nature, culture, new educational minimum*

It mainly used to be smoking, alcohol and drugs that young people would once use – if I may borrow the metaphorical expression from our immunologist and poet Miroslav Holub – to successfully work *towards ruining their bodies*. Today, this trio of insidious killers is joined, with tacit consent given by adults, by another addictive life-wrecker which creepingly invades our families and causes harm to the young bodies and souls in an unnoticeable way: *the internet*. Instead of running around and playing with friends outside it makes already small children sit alone at home in the company of just one faithful friend - the computer. In order for this new parasite to effectively take root and gain a lifelong power, it has to meet the child as early as possible. Definitely as early as pre-school age. It does not make them think, work or exercise, it only stimulates fruitless intellectual curiosity and playfulness, and therefore it can frequently only fully develop at school.

On the issue of computer literacy

No one will deny the need of computer literacy today. A pupil, a grammar school and university student are all interested in acquiring it. It tends to be easily forgotten that school should teach proper ways of learning, evaluating and thinking and to do so it needs respected teachers and scientists, not just computers. As if we did not know that

communication technology does not produce classical education, but only 'information awareness' and partial knowledge that is cold, instrumental and susceptible to misuse, inadequate to base a world view, since such knowledge develops to the detriment of atrophying emotions and the broad philosophical rationality. This critical remark is not intended, though, to diminish the importance of partial knowledge and use of computers in science, top management of production, transport and administrative institutions, in banks and offices.

In this reflection on possible negative effects of computers on educational process, I intentionally do not draw on any sociological survey, only on reading specialized books and my theoretical and educational experience. I also consciously leave out the general crisis of education which seemingly did not only hit us but the whole of Europe and which an Austrian philosopher Kurt Liessmann has grippingly written about in his recent work (*Theory of lack of education Errors of knowledge society*. Praha: Academia 2008). I will only quote one of his observations which is easy to remember: "Students count credits, teachers publications, the school counts money."

Of course I do not know the share that computers and the Internet have had in contributing to this sad evaluation of education. I believe, though, it is a major one. Also I cannot establish, whether the loss of the positive emotional relationship of pupils and students to nature today is caused to a greater degree by the increasing computer literacy or rather by the decreasing biological and philosophical literacy, in summary *evolutionary-ontological literacy*, that I will deal with in the following part. Based on my personal experience I will only mention one negative effect computers may have on the teachers' motivation at school. I will leave out students from this consideration, who surely find this technical device very convenient, as it is very easy today, as Miroslav Čejka once wrote, to "rake up information on the web like hay in the garden".

As I use the computer also at home, i.e. in a relatively free creative environment, I make so bold as to suggest a provocative thesis that draws parallel between the technological oppression that once hit workers and forced them to break the machines, and the computer-based oppression fully impacting researchers and teachers in the school system today. I assume that many of us are familiar with the meaning of the term 'technological oppression' from the history of technology. Omitting manufactories, the worker in the factory, where science materialized in the machinery for the first time, suddenly experienced this form of manipulation unknown before. The content of his work, as opposed to traditional handicrafts, was no longer determined by his abilities, craftsmanship in using his tool and technological knack, but by a monotonous run of the machine driven by the main steam engine. Since the age of steam the production technology has substantially changed and the extreme forms of technological oppression have been done away with, the schools, however, have paradoxically come closer to the pattern of modern "education factories" in many aspects of their work. At a qualitatively higher level and in a more sophisticated form, creative people are subject to information technology pressure here.

On coming to his study, an educationalist, theoretician and teacher in one person turns on his machine - his desktop. He does not discuss the latest literature, his observations drawn from reading, issues related to his research with his friends, his sight is glued to the glass monitor instead. The computer which should be used for

writing texts, reading of otherwise unavailable books and preparation of the content for courses, persistently keeps offering him incoming mail. It actually serves the school, not the teacher, just as machinery once served the factory owner, not the worker. More than two thirds of some imaginary fifty messages received by an imaginary standard teacher every week, more than two thirds arrive from the centre (of a university, faculty or department), many of them doubled or tripled by the respective secretaries. These are group e-mail messages that are easy to send, but disturb, disperse attention and keep the receiver from work. In part they are informative or meant to 'pass the buck' only, i.e. announcing where we are to collect luncheon vouchers, which department has holiday, when a department meeting or a training will be held, who to report different personal changes to and suchlike. Another portion of the incoming messages brings disguised orders: a duty to report a business trip in time, reminders of handing-in of its accounts, reminders of reporting publications to higher institutions, entering various new items into the information system, entering assessments of diploma theses, recording of students and doctorands' assessments, a duty to secure classrooms and computer technology etc. Less than a third relates to what the university teacher should engage in in the first place: his/her research, teaching and community involvement.

I am not mentioning this general framework here just to complain about the increasing paperwork load imposed on teachers. My concern is that instead of paperwork we should concentrate on the research and teaching well. The teacher's work, if it is to bring him satisfaction and use to society, should follow the logic of the problems he is theoretically and didactically concerned with, not the logic of the machine. Given its nature, his work may not be dominated by the mechanical, creative thinking and health damaging technology. The central reporting logic aimed at the measurement of immeasurable performances, causes damage to a creative educationalist, stresses and burdens every one who is really engaged in research and publishes his work, while, paradoxically, relieves those not pursuing anything in that way.

On the problem of evolutionary-ontological literacy

Our present education system which helps forming humans and culture, unfortunately also helps to deepen the global ecological crisis. If we want to moderate and eventually overcome the crisis, we we have to change the content of education and its aspirations: the misleading abstraction calculations in mathematics and physics which helped forming today's counternatural culture, may not be placed above the evolutionary interpretation of natural or artificial systems any longer; education at school must be directed toward the understanding of irreplaceability of natural processes and structures, the evolutionary fabric of the Earth; dissemination of partial information leading to passive accepting of knowledge will need to be replaced by a structure of exploration of the world that will be based on the *evolutionary ontological method of thinking*.

From the point of view of this new ontology it turns out that human rationality on which I base my hope for overcoming of the global ecological crisis, is conditioned and derived in two ways: *in one way* (at the level of our biological species) it is governed by the conservative *biological basis of human mentality*, i.e. human genome, but

in the other way (as the product of and precondition for the individual cultures) it is determined by the relevant generally binding *spiritual mindset of the culture in question*. It is therefore determined by cultural archetypes, i.e. a cultural *spiritual paradigm*. I presume that the rationality of the education system, similarly as the whole present-time culture undergoing globalization – leaving out the biological factors – is still governed by the *predatory spiritual paradigm*. Its change to the paradigm of respect and admiration for the Earth therefore presents the condition for biophilic transformation of both culture and education system.

The rapid progress of the partial study of nature, which rather than the understanding of its innerly harmonized system looks for the procedures to force the human will upon nature, is today followed at a distance by the slow process of rational understanding of the world. People who are successful in practical life, i.e. actively participating in creating the counternatural culture, are, regrettably, often unaware of what is happening to the world today. The globalizing culture as a nature-dependent system which is only limited so far by the lacking possibilities of sharing its metabolism with nature, and therefore lacks a long-lasting rational negative feedback from the Earth, i.e. the superior host system within which it develops.

Our ancestors who did not know the evolutionary theory of the Universe and Earth yet, could not know *who was man, how he developed and in what sense his birth was essential for the Earth*. Only now we are beginning to understand that humans are *a highly active and ever better organized animal species*, the only one to have ever managed to outwit nature. Within it humans started another process, of temporary benefit for them, though damaging the Earth – *counternatural cultural evolution*. Now we are discovering that this evolution which has been short-sightedly disrupting the rare natural structures and adjusting them to suit the humans, started a critical period in the history of the Earth. That is to say, the expansion of systems and structures of the cultural being causes *damage to and diminishing of the natural being, it brings about devastation to the irreplaceable structure of the Earth*.

The weight of this threat cannot be made lighter even by the fact that culture has been predominantly perceived positively until today, i.e. as a spiritual culture, cultivation of the man and nature. The threat is also not moderated by the school and later civic education not giving a long-term attention to clarification of the relationship between nature and culture. The reverse is true. For example the physical principles taught at school (e.g. the mass - energy equivalence) which legalize the technological subjugation of nature, obscure the root of the ontological conflict between culture and nature. The fundamental abstract calculations in the secondary school physics present the human knowledge of the world with lack of criticism: they disregard the evolution and natural conditions on the Earth and by putting an emphasis on mass and energy they conceal the destructive element of human knowledge; the theoretical interpretation of nature thus appears in the positive light only, just as the necessary condition for human cultural creativity.

From the perspective of evolutionary ontology, I reject this simplified idea. Education is a great influence in shaping the culture as well as human relationship to the world, it is an important knowledge and value based component of both the formative process and human ontogenesis. Together with the effects of nature, family and social environment it influences the world-view attitudes of people.

To overcome the global ecological crisis which consists in the conflict of the present counternatural culture and nature, we therefore need, along with the new theoretical concept of nature and the new concept of culture, also a new education system that will encompass their world-view and didactic components in the generally understandable form. As what we need is the didactic rendering of the process of natural evolution which produced the Earth and the human species, and, on the other hand, of the opposition process of cultural evolution which has been developing to the detriment of natural evolution. Schools, education institutions and the lay public, however, need to be not only offered an understandable philosophical reflection on the causes of the global ecological crisis, but also be shown possible ways to their reduction and solving. But I can only present here a rough outline of this special ontological minimum which should be understandable to pupils, students and all citizens.

Eleven theses of the new education minimum

1. In view of the fact that the present global ecological crisis is an ontic conflict of the young, dependent and partial cultural evolution with the older, independent and broader natural evolution, i.e. the conflict between culture and nature, we have to consistently differentiate within its reflection between *two different evolutions, two types of the ontic structures, two different sets of constitutive information*.

2. *The Universe*, including living earthly nature, the humans and the genetic information of live systems, is a product of natural evolution, i.e. *the product of the spontaneous creative Big Bang activity*. Humans owe the set of biological conditions including their creative ability that made it possible to ignite and develop the “competitive“ cultural evolution to nature, not to culture.

3. *Human culture*, including the material and spiritual culture, is not a product of the natural evolution, but that of the cultural evolution, that is, *the spontaneous creative human ability*. Culture is an open non-linear system with inner information which, however, is not the natural genetic information which integrates biosphere, but a social spiritual culture which develops within culture and which forms, integrates and helps developing the cultural system.

4. *Human* is a normal, accidentally developed biological species. Its uniqueness does not first of all consist in that man acquires knowledge, thinks, cooperates, learns and believes. It principally consists in that man as a result of his genetic predisposition for an aggressive adaptive strategy, as well as due to the ability to code through language and ontologically use non-biological neuronal information, has gone all the way to become the other earthly demiurgo, the “small oppositional god“.

5. *Man is not the only being, however, who can feel, experience and acquire knowledge*. All living systems feel and explore their outer environment, and often with far greater subtlety. They spontaneously “explore“ it through their genomes that make their organisms suited to the habitat structure, and many of them also “intentionally“, i.e. through sensory neuronal perception, so as to adapt their behaviour to its changeable structure.

6. *Man* as the partial product of natural evolution, i.e. one of the many normal biological species, *could not be equipped with a sensory neuronal system for adequate exploration of the natural Earthly structure, providing the general picture*. As he deve-

loped a cognitive system for self-preservation, his cognition and thinking cannot be – unlike his genome as the memory keeping non-living and living matter – fully compatible with the structure and processes relating to Earth ontological activities. His learning and thinking is aimed at a purpose, that is, he reduces the comprehensive natural reality to just one organizational surface within which he interprets nature pragmatically, in his favour.

7. *The human conceptual knowledge* (spiritual culture including education system) which has produced the basis for an *open scattered genome of the cultural system*, though being the product of culture, is at the same time the point of departure and guideline for its creation by human activities. Its knowledge and value content is not so noble and lofty as we believed it to be. It co-creates the cultural system which unnecessarily devastates the planet Earth today.

8. *The process of damaging the natural structure* by the locally more powerful cultural structure, which is ontically at the root of the present ecological crisis, cannot destroy nature, but it poses a threat to man and culture. For it devastates the natural world in which man developed and which his existence still depends on. The cultural structures such as cities, cars and computers are actually created based on the older natural structures. They arise in the process where the human productive activities first disrupt and consume the naturally organized structures, and only after that form them as useful objects and constructions. For humans can only use the mass and energy already embedded in the unique natural structures.

9. As all the physical principles discovered until now continue to act on the Earth and in the Universe, the cultural evolution cannot effect the amounts of mass or energy to increase. What has been changing dramatically after culture developed is the proportion of the natural to the cultural being. With the expansion of technology, cities, fields and roads the *rare natural structure* disappears which once formed man and which the human conservative genome (and therefore the human organism too) remained homogenous with. Habitability of the globe creepingly diminishes also because of that.

10. As a result of the inappropriate content structure of education most people today are unaware of what evolution means and what it produces. People have not been instructed that *evolution can only produce shapes, structures, organization, i.e. information*. They are not aware that the Universe is spontaneously creative and its natural evolution has formed the beautiful earthly nature including man, i.e. all the natural systems, structures and shapes, all the *natural information*. It is not emphasized to pupils and students that culture, if it is to create its own forms, structures and shapes, must produce its own sociocultural information and modify or irretrievably disrupt natural forms, structures and shapes. School does not teach us that the ongoing *extinction of species* caused by culture is actually barbarian burning of the rare original “texts“ of living nature, it is unforgivable and irretrievable *burning of natural genetic information*.

11. Arguably it is only the philosophical aspect of evolution, whose outline needs to be included in the curriculum at secondary schools and universities, that may rehabilitate nature in terms of value and mediate the understanding of the substance and ontic roles of both natural and cultural information. As we are discovering today, the natural biotic information which develops together with life and integrates biosphere, does not divide and damage the Earth. It is only the *human cultural information governed by*

the predatory paradigm, which is, unfortunately, hostile to the Earth. Temporarily, it divides it into nature and culture and, temporarily, turns the expansive cultural system, existentially subjected to the broader and more powerful order of nature, *against the natural evolution, against life*.

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