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## К СУЩНОСТИ ЭВОЛЮЦИОННОЙ ОНТОЛОГИИ\*

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*Эволюционная онтология отличается от традиционной онтологии, во-первых, предметом, во-вторых, способом его интерпретации, в-третьих, общественной ролью. Предметом традиционной онтологии было абстрактно понимаемое природное бытие. Предметом эволюционной онтологии наряду с природным бытием является также искусственное онтически оппозиционное культурное бытие. Ее предметом является онтический конфликт культуры с природой. Традиционная онтология в понимании природного бытия выделяла постоянство, пассивность и обратимость, эволюционная онтология акцентирует его процессуальность, онтически активную и необратимость, в соответствии с реальностью считает бытие онтически творческим, рассматривает его деятельность; традиционная онтология была абстрактно академической и индивидуально утешающей; эволюционная онтология, открывающая суть глобального экологического кризиса, может выполнять функцию общемировоззренческую и культурно-парадигматическую.*

**Ключевые слова:** эволюционная онтология, традиционная онтология, эволюция, природа, культура

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## ON THE PRINCIPLE OF EVOLUTIONARY ONTOLOGY\*<sup>1</sup>

### Abstract

*Evolutionary ontology differs from traditional ontology in the following aspects: 1. subject; 2. means of its interpretation; 3. social role. The abstractly understood natural being is the subject of traditional ontology. The ontically opposing artificial cultural being is, besides the natural being, the subject of evolutionary ontology. This is because its subject consists in the complete terrestrial reality, including the conflict between the Culture and the Nature. Traditional ontology, within the context of the natural being, preferred stability, passivity and reversibility, while evolutionary ontology emphasizes processes, ontical activity and non-reversibility; in compliance with reality it considers natural being to be an activity, to be a process powered by the residual energy of the Big Bang. Traditional ontology has been abstractly academic and individually comfortable; evolutionary ontology, which has revealed the principles of the global environmental crisis, could play a generally philosophical and culturally paradigmatic role.*

### Keywords

*Evolution, ontology, evolutionary ontology, traditional ontology, nature, nature conservation, culture, value systems*

Evolutionary ontology provides a new procedural view of the whole of reality - of the being. It intentionally leaves aside traditional speculations about the relationship between existence and being, including the seemingly profound deliberations about the relationship between the essence and the existence. In accordance with the knowledge of special natural sciences about the unity of matter and energy, indirectly confirmed not only by the origination of life but also by the operation of the contemporary information technology, it does not consider being to be stable and unchanging - to be merely visible macroscopic

objects, anymore. It understands both the universal and terrestrial being as an *activity*, as something ontically creative, an *evolution producing structures and orderliness (information)*.

This ontology, which understands evolution within the widest possible meaning of the term, and which therefore acknowledges *both natural evolution and the human-ignited cultural evolution*, claims approximately the following: physical laws of the preservation of mass and energy may apply to the whole Universe but on the Earth, shaped by the natural and later cultural evolutions, *there does not exist any law of preservation of its orderliness*. Orderliness, which is a product of

<sup>1</sup> This article approximately corresponds to the second and third chapters of the following book: Šmajš, J. *Evolutionary Ontology. Reclaiming the Value of Nature by Transforming Culture*. Amsterdam and New York: Rodopi 2008; For so far the most detailed discussion of evolutionary ontology see Šmajš, J. *Filosofie- obrat k zemi*. Prague: Academia 2008. Evolutionary ontology is also discussed in the following book: Šmajš, J. *Evoluční ontologie kultury a problém podnikání*. Brno: Masaryk University Publishing and Doplněk 2012.



evolution, comes into existence and disappears.<sup>2</sup> Those things that remain preserved within evolution from the physics point of view are not substantial for ontology. The processes and products of evolution are substantial: the natural and cultural activities, the natural and cultural orderliness.

The currently gravest anthropological danger consists, according to this ontology, in the fact that it is impossible to preserve the natural being, which is absolutely necessary for human existence, in its full scope after the origination of the Culture<sup>3</sup>. Despite the fact that the natural being is highly ordered and compatible with human body, it has become a matter and energy for the creation and spreading of the temporary cultural being. Human ontically creative activity transforms a part of it into a *differently ordered cultural being*. Growth and expansion of the artificial cultural orderliness of the Earth therefore results in the decline in its natural orderliness. It is demonstrated in the decline and deterioration of the human-compatible natural being.<sup>4</sup>

This is because a Material Culture, including the technics (leaving aside the stage when it used to consist of little-modified natural products), can originate only from more permanent elements that had been created by the natural evolution of the Universe and the Earth. It is therefore structured from the very same substances and chemical elements of the periodic table that gravitation had once created the Earth from; some of

these elements have also gradually become parts of animate systems.

Abiotic structures of the Culture, currently structured from almost all the chemical elements of the Earth, cannot be easily incorporated into the natural balance between the inanimate and animate systems of the planet, though. Their expansion not only damages the naturally ordered existence; it also structurally modifies it and sometimes even completely destroys it. The process of shaping the Culture's artificial body crushes even those unique structures that had come into existence through the long natural evolution and that will therefore never come into existence again. This process irreversibly deletes information that evolution had inserted into the inanimate structures.<sup>5</sup>

Even though the traditional stationary ontology of natural being had been forced to take into account dynamics and changeability of some areas of reality, it ultimately preferred what the cognitive component of human psyche was biologically pre-determined for: stability, invariance and a single level method of reality arrangement. In harmony with the ancient assumption that the world is based on a stable principle and that the changeable existence hides this stable and unchanging being, traditional ontology attempted to look away from variances and changes. In conflict with the development of science, which had gradually uncovered the non-substantial structure of the micro-world and the mega-world, traditional

<sup>2</sup> Within this context the name of the following book by the astrophysicist L. Krauss is very relevant: Krauss, L. M. *Vesmír z ničeho*. (The Universe out of Nothing). Prague: Universum 2013.

<sup>3</sup> Evolutionary ontology understands the Culture as an artificial system with its own internal information – the Spiritual Culture. For the issues related to the Culture see the term *Culture*. In: Birx, H., J., ed. *Encyclopedia of Anthropology*. Thousand Oaks, London, New Delhi: Sage Publications 2006, pp. 636–640.

<sup>4</sup> Cultural being, which comes into existence at the expense of the natural being, cannot exist on the Earth in the long run, though; as a being reproduced by human activity it rises and falls with the presence of the human biological species.

<sup>5</sup> In this context I would like to note that if evolution produces something new, it is orderliness and information. Breaking up of the natural orderliness by the Culture therefore decreases the natural orderliness of the Earth and disturbs the dynamic balance between its animate and inanimate structures.



ontology, true to its own history, has emphasized only what remains and apparently does not change, and what neither increases, nor disappears as a stable carrier of attributes (substance).

Because the concept of stationary ontology is in sheer contrast with the latest findings and theories of science, *evolutionary ontology* not only criticizes such an approach but also reverses the relationship between *stability and changeability*. Behind the relatively stable surfaces of macroscopic objects, which are, in harmony with their sensual images, unconsciously constituted by human reason, it uncovers the hidden mechanisms for establishing and maintaining their macroscopic structures: tiny and fast internal microscopic activity as well as large-scale system processes of the reproduction and evolution of these structures within the ontically creative Universe.<sup>6</sup>

In an attempt to correct the mistakes of modern science and traditional ontology, the evolutionary approach rejects Eleatic legacy of the stable and unchanging being. It gives up the idea about the compatibility between being and human knowledge (thinking). The broad and approximate human thinking, derived from the macroscopic level of natural reality cognition, cannot be

adequate to the delicate structure of the natural reality. Only human genome is adequate to this structure. Therefore even the Culture, which arises not from the genome but from human thinking, cannot be fully compatible with the Nature.<sup>7</sup> The Nature never expected that a new ontical reality could ever arise and develop for an extended period of time from the neuronal cognition of an animal species.

### The Subject of Evolutionary Ontology

The traditional concept of ontology as a theory of being contained the historically conditioned belief that ontologically orientated philosophy must concern itself with either an extra-human natural being<sup>8</sup> or (in the modern period) an experience-based human being (M. Heidegger). All traditional ontologies overlooked the fact, though, that after the appearance of humans on the Earth there started to grow another, ontically different, form of reality – *the artificial being created out of the Nature*.<sup>9</sup>

It is therefore necessary to newly define and structure the subject matter of ontology. We may continue to use the classical term of being, but we

<sup>6</sup> “Modern physics has showed that the rhythm of creation and destruction is not manifested only in the cycle of seasons and in the birth and death of live creatures, but that it is the essence of inorganic matter itself.” Capra, F. *Tao fiziki*. Bratislava: Gardenia 1992, p. 187.

<sup>7</sup> It seems, though, that the contemporary physics has already surpassed its Galilean and Newtonian epochs. It is again attempting to win back its once lost status of the queen of natural sciences. Equipped with the new findings in cosmology, astrophysics, quantum mechanics, imbalance thermodynamics, etc., it is able to interpret the world not only in terms of particles and elements, localized unquestionably in space and time, but also in terms of processes and conditions of open non-linear systems, in which organization, imbalance, energetic nutrition and minor lapses called fluctuations, play their roles.

<sup>8</sup> Nicolai Hartmann, a critic of M. Heidegger, was the first important ontologist, who attempted to include humans into the being. Cf. Hartmann, N. *Neue Wege der Ontologie*. Stuttgart: W. Kohlhammer 1964.

<sup>9</sup> The term “culture” means the process as well as the result of human social activity (the total of human activities as well as all that is created by these activities), i.e. the evolution of a cultural system producing not only the Spiritual Culture, but just as necessarily also the Material Culture, technology, institutions, organizations, regulatives, etc. Therefore this term is employed as an opposite to the term “nature”, by which we understand the result and the process of the natural cosmic and terrestrial activity.



cannot relate only the natural being or the sensually-understood human being to its content anymore. This is because being is a *stately term for reality* and it includes not only the traditionally acknowledged existence and principle, but especially the previously overlooked activity and orderliness: *processes, the built-in or inscribed information*.<sup>10</sup>

The appearance of the Culture, even though philosophy has not clearly defined this so far, has changed the subject of ontology both from the *viewpoint of its structure and also from the viewpoint of its understanding for the humans*. This is no more the traditional question of *what is being and what does it originate from*, but a much more complicated problem of *what type of being appears or disappears through the cultural evolutionary process*. Ontology that will include humans and Culture into its subject matter must newly answer the question of *who are humans*, to what kind of being they belong, what kind of being they create and to what kind of being they can biologically adapt to (as creatures compatible with the original Nature) without incurring organic damage. It has to ask the following question: “In what kind of being can humans live healthy lives in harmony with their own conservative biological constitution?” It cannot avoid the problem of *what is the relationship between the natural and cultural beings*<sup>11</sup> and *what is the principle of the contemporary environmental crisis*. Contemporary ontology, in agreement with reality, has to acknowledge that even though this crisis has been caused by humans as the only artificially, ontically active species, its *essence is not based in any contradiction between humans and*

*Nature*. This is because humans are a product and a part of the Earth. The principle of the crisis consists in the ontic difference (growing incompatibility) between the cultural and natural being, in the ravaging of the Earth by the differently ordered and expanding Culture.

The artificial cultural system, which is locally stronger, has its own physical body, its own activity and constitutive information and therefore also its own means of expansion configured by the Spiritual Culture. And it is this configuration - the hidden predatory spiritual paradigm - that is currently unsustainable. In contrast to the biofile-configured Nature, which the contemporary philosophy has stubbornly denied its natural subjectivity, it has willingly acknowledged the subjectivity of the humans and also the artificial subjectivity of the predatory-configured Culture (in the form of legal persons).

The expansion of the abiotic Culture introduces the following problem: what natural conditions make Culture possible and is the Culture of the contemporary extremely anti-natural type, which damages the human health, *sustainable*? Cultural existence is not just ontically different from natural existence. It has been shaped by a violent transformation of the Nature and therefore its existence, reproduction and evolution create not only non-natural structures but also support the *false feeling about human superiority to the Nature*. This is another reason why evolutionary ontology defends the claim (against the current prevalence of the anthropocentric social sciences) that Nature is an older, wider and more powerful system than Culture and that Culture must

<sup>10</sup> It has been sufficiently proved that biotic information is not only structurally built-in in live systems but also written in (saved) in their natural biotic memory. These two different forms of information presence in a live system, analogy of which can be found also in

the system of the Culture, can be described by the biological terms of genotype and phenotype.

<sup>11</sup> For the issues related to Nature see the term *Nature*. In: Birx, H. J. ed. *Encyclopedia of Anthropology*. Thousand Oaks, London, New Delhi: Sage Publications 2006, pp. 1700–1702.



acknowledge and respect the subjectivity of the Nature.<sup>12</sup>

Despite the fact that cultural evolution has been ignited only by humans and despite the fact that after the end of the human species existence it will be unable to continue, evolutionary ontology considers it an *objective, ontically constitutive process*. This is because it produces not only its own substantive and organizational orderliness but also its own ontically constitutive information (the Spiritual Culture). Both the natural and the cultural evolutions are therefore ontically constitutive processes, even though operating in different ways, directions and paces. Both occur not only on the same planet Earth but also – metaphorically speaking – both bake their products from the same flour; *from the dust of the ancient stars*. This is what had formed our planet long time ago. The limits of any further extensive expansion of the Culture, as indicated above, are related to the fact that all this imaginary flour, which consists of relatively stable chemical elements of the periodic table and their chemical combinations, had been "baked into" the highly ordered inanimate and animate structures of the Earth before the origination of the Culture.<sup>13</sup>

And since cultural structures (especially the Material Culture and technics) cannot originate

otherwise than through new construction (reconstruction) of older and more stable natural forms, the *cultural evolution* incorporates a destruction of the highly-ordered natural existence. It produces different ontical orderliness, i.e. *it creates a different ontical order inside the original natural order*. This evolution therefore *temporarily splits the originally ontically uniform reality into the Nature and the Culture*. It breaks down the natural forms and uses the stable elements and their chemical combinations to build its own transient cultural structures.<sup>14</sup> Culture, in contrast to live Nature, has no proper material and energetic foundation – the differently ordered Earth is its host environment. *Therefore the cultural order cannot originate from the same chaos the natural order originates from. It has to originate from some other order through destructions and transformation of the natural being*.

No theoretical discipline is able to reflect the consequences of this dramatic ontical transformation of the planet in its entirety, though. Evolutionary ontology demonstrates that the naturally originated biosphere is not only getting narrower, divided and distorted by the expansion of the Culture and that its animate systems are also getting damaged through contamination with artificial substances and chemical structures. For humanity there arises a problem that it has never come

<sup>12</sup> Subjectivity – in contrast to the modern tradition - is not considered only a human characteristic but also a characteristic of open non-linear systems (both natural and artificial) to maintain and develop the internal orderliness of the system through receiving information and both material and energetic nutrition from the surrounding environment. The defense of the terrestrial Nature subjectivity is the foundation of the philosophical concept of the Constitution for the Earth. See Šmajš, J. *Ústava Země. Filosofický koncept* (in Czech, English, German, Russian and Slovak). Banská Bystrica: PRO 2015.

<sup>13</sup> Of course, at the point of formation of the Culture, the laws of conservation of mass and energy, which we

learned about at school, had been in effect. Unfortunately, though, there was and still is no law of conservation of orderliness in effect because it obviously does not exist.

<sup>14</sup> It is also important that evolution of life did not build live systems arbitrarily, i.e. from all the elements of the periodic table, for example. The highly complex animate systems were created from only a few elements and they were linked together by functional and food dependences to make possible their reproduction in the abiotic environment.



across in the course of its own history. The human sensory-neuronal equipment that the natural evolution had created for a life in a healthy environment does not protect the health of human organism. It doesn't provide any feedback on the dangerous disruption of the external environment's structure. The influence of the Culture on the planet doesn't support the planet's evolution but joins the natural entropic processes. And therefore it is the *Culture-ravaged Earth* that has to become the subject of evolutionary ontology in the stage of the Planetary Culture.<sup>15</sup>

And finally I would like to say that the evolutionary standpoint in ontology has never been thoroughly applied. On the one hand, the historically conditioned prejudice that structure (being) is more fundamental than events (processes) and that ontology must examine only the stable and unchangeable being has certainly been in action. On the other hand, however, the recognition of process and natural ontic creativity in one part of reality, for example in the area of terrestrial life, was acceptable for traditional ontological thinking, which had been dealing with the inanimate existences. Evolution understood from a narrow biological point of view – only as a hardly demonstrable hypothesis of the evolution of organisms – did not endanger the governing stationary paradigm: the concept of stable being, which was supported not only by the philosophical tradition and

common sense but also by the authority of the Newtonian physics. Not even the social development, already acknowledged and analyzed by numerous philosophers, could have been interpreted adequately within the scope of the anthropocentric stationary ontology: as an unnatural process of a different ontic form of reality's origination inside a wider natural process.<sup>16</sup>

Moreover, an interpretation caesura between Nature and Culture was formed in the modern philosophy, which, however, did not result from the understanding of the Culture – in contrast to the Nature – as an artificial and only temporary structure. The caesura resulted from the exclusion of humans from Nature and from the incorrect understanding of humans as belonging to a higher value world of the Culture.<sup>17</sup> And an axiologically higher world of the Culture – in Kant's terminology the world of noumenon, freedom and moral action – couldn't be interpreted within a single ontological theory, i.e. both axiologically and value neutrally. As a continuation of the Nature through other means it was a priori promoted to a superior world of human thinking, morality and meaning and in compliance with the example of the live Nature it did not hurt the Earth. In this false interpretation, which is the foundation of most theories of environmental ethics, it was only acting humans who could hurt the Earth.

<sup>15</sup> This theory spreads the opinion that ontology will lose its original, individually cultivating and comforting meaning and that it will be forced to deal with the urgent tasks of cultural existence and general worldwide views.

<sup>16</sup> A classic example of an inadequate understanding of nature is Hegel's concept of history. According to Hegel, spirit is active and creative, while nature is only a perpetual cycle, in which nothing ontically new is formed: "We have spoken above about the essence of spirit - its being is its deed. Nature is such as it is, thus any changes in nature are only repetitions and any

movements in nature are only a cycle." Hegel, G. W. *F. Vorlesungen über die Geschichte der Philosophie*. Erster Band. Leipzig: Philipp Reclam 1982, p. 37.

<sup>17</sup> We have already noted the courage of N. Hartmann to integrate humans into the being: "The old ontology advanced in reverse, it wanted to see the whole world in relation to man... Here, the opposite shows, not the world is supported by man, but man by the world; everything in him is related to the world." Hartmann, N. *Neue Wege der Ontologie*. Stuttgart: W. Kohlhammer 1964, p. 29-30.



*Evolutionary ontology*, which refuses the dominance of humans over Nature, therefore undermines the solutions to many traditional philosophical problems. It strives to create a new image of the world and humans, a new non-anthropocentric cosmology. But it is not intended to be either a physical or biological cosmology. It is a "culturalogical" cosmology – a cosmology focused on explaining and mitigating the temporary planetary conflict between two ontically creative evolutionary processes: the spontaneous activity of Nature and the socio-cultural activity of humans.

### **General Characteristics of Evolutionary Ontology**

Below you can find five brief characteristics of evolutionary ontology to summarize its character.

1. *Evolutionary ontology develops cosmology in accordance with the process-based character of being*, i.e. it considers process to be ontically more fundamental than structure. This is not a sufficient designation, either. *Being is not ontically uniform under terrestrial conditions*. This ontology therefore differentiates between two ways that create all the explicate forms of terrestrial reality: the original and earlier *process of Natural Evolution* and the relatively new *process of Cultural Evolution*. In addition to the spontaneously created abiotic and biotic layers of the terrestrial orderliness it deals with the *structurally and functionally different cultural being*. In contrast to the traditional ontology, which considered being to be the ontically uniform natural being and which preferred stability, passivity and reversibility in its concept, the evolutionary ontology stresses activity, creativity and non-reversibility also in the concept of the natural being. This is the reason why it cannot directly resume the line of argument of any stationary or mechanical ontology, which separate humans from the world and consider being to be Nature-conditioned, stable or moving but determined once for all.

2. *Evolutionary ontology attempts to define humans not only as a product of evolution of the biosphere but also as the only creator of the Culture*. Despite uncovering human cultural ontic creativity, it attempts to be non-anthropocentric. It assumes the validity of the evolutionary hypothesis that humans are descended from Miocene apes and that the phenomenon called human Nature had been formed a long time ago before the rise of the Culture. Humans, as non-naturally, ontically creative species and the unique creators of the Culture, belong into the Nature and are evolutionary-adapted, not alien to it. Just like any other species, humans were also formed only during a specific phase of the evolutionary process of the biosphere and, after some lapse of time, irrespective of having managed to create a Culture or not, they will disappear from the evolutionary scene.

3. *Evolutionary ontology builds a new ontological status of the Nature*. It ontologically and axiologically rehabilitates the unique terrestrial Nature, which has been deprecated by the modern subject-object approach to a mere substantive reality, space or value-neutral matter. Nature is presented as a self-organizing system with natural intrinsic information - as an onto-creative evolutionary process, which has created all the natural orderliness (information) and which has spontaneously created all the necessary natural requirements of the Culture: a highly diversified animate and inanimate Nature and the biological species of the present-day human beings that had been so well adjusted to it. Nature is thus considered a superior system both to humans and to the Culture, an ontically creative and auto-regulative system, a relatively independent subjectivity.

4. *Evolutionary ontology attempts to create an ontological status of the Culture*. It unifies Spiritual and Material Cultures into a single functional system with its own intrinsic information – *the Spiritual Culture*. In contrast to tradition,





which had not considered Culture to be a relatively separate time-space reality (being) but only a society of people or a non-specific addition and improvement (humanization) to the Nature, it uncovers a peculiar ontic nature of the Culture - its *structural and functional incompatibility with the Nature*. Because of the efficient utilization of the purpose-oriented constitutive information and additional energetic nutrition, the Culture is an anti-natural subsystem of the Earth. It is a subsystem that seems to locally improve the Nature; but, in fact, it suppresses and irreversibly damages the Nature through fast expansion of the opposing cultural orderliness.

5. The identification of the basic dependence of the Culture on the Nature drives evolutionary ontology to accept an adequate philosophical responsibility for the fate of humanity. In an

attempt to prevent an environmental disaster, it no longer merely attempts to correctly explain the structure of the world; it attempts to create a new generally *comprehensible ontological minimum* that would help initiate a change in cultural strategy and support new morals, law and politics. It defends the claim that humans are not responsible for the Nature they had not created and they still do not fully comprehend. Humans are responsible for the Culture - a piece of work that irreversibly damages the Earth it was born from. Evolutionary ontology rejects the anthropocentric justification of values, meaning and purpose. Values, meaning and purpose are not given to the Nature by humans only but by a natural process of evolution, which has also created humans; it has value, meaning and purpose in itself.

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