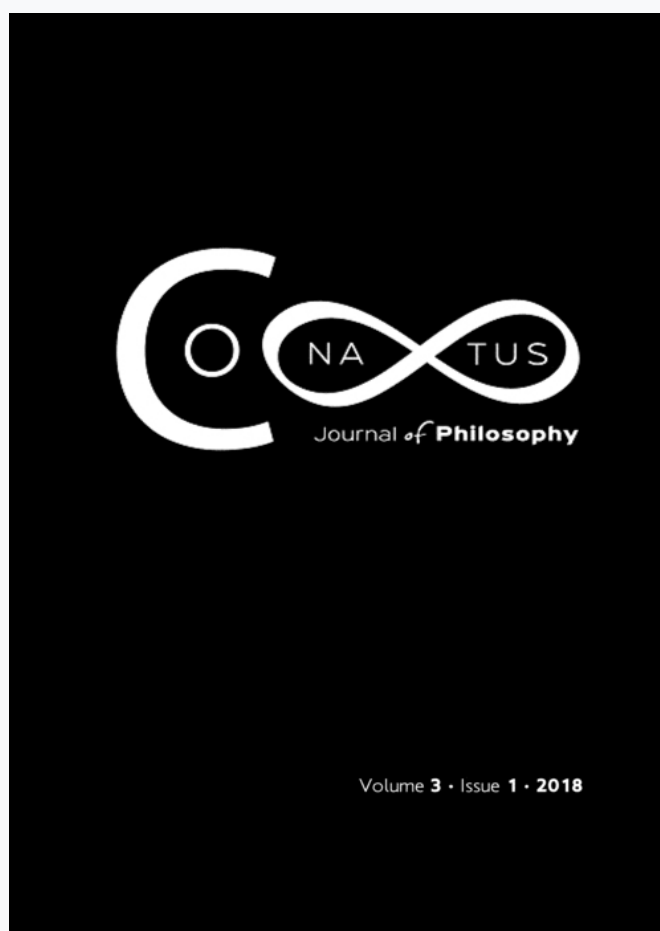


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The Utilitarian Stigma of Environmental Protection

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Abstract

In this paper I want to point out the multifaceted impact of utilitarianism as well as pragmatism, applied as the unified philosophy of environmental protection. Special attention is paid to the utilitarian aspect of Marxism, and a continuous (1988-2018), comprehensive case study from Poland – in the context of European economic realities – serves as an example of social reception of the utilitarian paradigm in contemporary environmental protection policy.

Key-words: *civil environmental consciousness; civil nuclear energy; environmental protection policy; environmental quality of life; Klempicz case; liberalism; Marxism; neonaturalism; pragmatism; utilitarianism*

I. Capitalized Utilitarianism

Eco-shock is a value-shock, for it proves that the human, just like every other living being, must subordinate itself to the biological order of Being, and that this species is not “the measure of all things”. The eco-crisis is primarily caused by a moral underdevelopment of culture, especially by a peculiar value-aberration of *Homo sapiens* (HS) called speciesism. We HS have not found our proper niche in the biosphere, which means we have not created an environment-friendly model of culture. The contemporarily prevailing utilitarian-pragmatic attitude to the natural environment is biologically destructive, for this attitude is morally wrong.

Although Jeremy Bentham privately seems to have been a defender of nonhuman animals, paradoxically his principle of utility resulted in impersonal statistics of right and wrong. A global pleasure-pain calculus, or the principal value of classical utilitarianism, made abstractions of suffering and happiness, which thereby became convenient for corrupt practices. “Utility” has turned out to be a formal as well as

relational category. It means that the value-status of a goal decides whether given devices, which are useful (instrumentally proper) to achieve this goal, serve the good or the evil. "Utility", which practically means financial profits from cultural actions, has depreciated living creatures to the status of instruments while achieving human ends of various kinds. Next, John S. Mill introduced, after the Aristotelian tradition, a value-hierarchy of species and, thereby, an axiological vision of evolution into utilitarianism. Human pleasures became nobler than nonhuman ones, while human pains became more real and important than those of other species. According to the Cartesian legacy, Mill judged intellectual processes to be the most valuable, exclusively human phenomena, *ergo* to be a natural reason for human supremacy among species. Utility for HS, subordinated to a cultural spiral of needs, became the criterion of moral evaluations. The positivistic, post-Cartesian nature of utilitarianism has brought about particularly tragic consequences in the treatment of farming and laboratory nonhumans.¹

At present, vulgarly simplified utilitarianism is the dominating instrumental way of thinking of producers, consumers, scientists, and politicians, no matter how they are labeled – Liberals, Marxists, Social-Democrats or Christians. And for a modern utilitarian, or a pragmatist, the real world is merely raw material for the

¹ [1] John S. Mill, *A Selection of His Works*, ed. John M. Robson (New York: The Odyssey Press, 1966), 158-163, 169-170, 173-175, 182-183, 188-193, 214ff, 222-223. [2] In this paper I am referring to the Cartesian mechanistic position on nonhuman incapacity for sentience. See René Descartes, *Discourse on the Method (Part 5)*, 20-23 (see earlymoderntexts.com/assets/pdfs/descartes1637.pdf), as well as compare the second part of Descartes' *Description of the Human Body*, where he referred to a vivisection, see *The Philosophical Writings of Descartes*, vol. I, transl. by J. Cottingham, R. Stoothoff, D. Murdoch, A. Kenny (Cambridge: Cambridge University Press, 1985); the correspondence between Descartes and H. More, M. Mersenne, and Marques of Newcastle is relevant as well: see *The Philosophical Writings of Descartes*, vol. III – The Correspondence (Cambridge: Cambridge University Press, 1991), 134-135, 302-304, 360-365, 373-375, 380-381, (compare also plato.stanford.edu/entries/henry-more/#CarNatThe); see also Descartes's letters to Gisbertus Voetius and to Guillaume Gibieuf in *Selected Correspondence of Descartes*, ed. by Jonathan Bennett (at earlymoderntexts.com/assets/pdfs/descartes1619_3.pdf); and also R. Descartes, *Meditations & Objections and Replies* (ibid.: *Sixth objections and Descartes's replies*), in *The Philosophical Writings of Descartes*, vol. II (Cambridge: Cambridge University Press, 1985). [3] Some other relevant references: Jan J. W. M. Bos, *The Correspondence between Descartes and Henricus Regius* (Ph.D. dissertation), series: Quaestiones Infnitae (vol. XXXVII/2002), Utrecht University-The Department of Philosophy, esp. 63-74 (<https://dspace.library.uu.nl/handle/1874/88>); Alexander Boyce Gibson, *The Philosophy of Descartes* (New York: Garland, 1987), 214; Anita Guerrini, "The Ethics of Animal Experimentation in Seventeenth-Century England", *Journal of the History of Ideas* 50, no. 3 (1989): 391-407, 391ff; Peter Harrison, "Descartes on Animals", *The Philosophical Quarterly* 42, no. 167 (1992): 219-227, 219 and 224-225; some of alternative views: John Cottingham, "'A Brute to the Brutes?': Descartes' Treatment Of Animal", *Philosophy* 53, no. 206 (1978): 551-559; Voltaire, *Letters on England* (Letter XIII – On Mr. Locke), 47-48, at www.naturalthinker.net; some other relevant references: Stanley Coren, *The Intelligence of Dogs* (New York: Free Press, 2006), 47-48, 62-68, 97-98, 100; S. Coren, *How Dogs Think* (New York: Free Press, 2005), 4-6, 90-91; Peter Singer, *Animal Liberation* (New York: Avon Books, 1990), 200-202, 223-224; P. Singer, *Practical Ethics* (Cambridge University Press, 1981), 94-96, 182-183

demonstration of human intellectual-technical abilities. The pragmatist's purpose is the very process of transforming the environment. In pragmatism, "utility" manifests its formal-deontological core to the full: the efficiency of an action has become an end in itself. Effectiveness as such, or human proficiency in any field is a principal value.²

In the contemporary model of environmental policy, the environment has the status of a commodity and is put out for sale. Each part of the natural environment, especially those not yet destroyed, presents a potential profit source if the advertising media stimulate human needs, argue a necessity of consumption and persuade people to buy. The environment is always endangered if it is treated as stock to be processed as well as an object for absorbing human aggression. Environmental protection itself must be recompensed in the price of merchandise, therefore consumers lobby for the elimination of expenditures for environmental protection from cost-benefit calculations if it does not – at least seemingly – endanger humans. The position of producers and shareholders is obvious. It is for economic reasons that one can hardly be seriously keen on environmental protection.

Based on the principle of financial profitability, environmental "protection" is harmful for the environment. Instead of protecting the biosphere, humans selectively exploit these elements of the environment that can be serviceable for their ongoing interests. It is so because the "environment" is commonly understood as a universe determined by culturally induced human needs, as well as treated as an unlimited waste disposal site. Present environmental "protection" consists in the accumulation of cultural refuse in the environment in such a way as to avoid public interest, and in the sophisticated exploitation of the Earth in order to sustain human consumerism within rich societies. The Greek *oikos* has dramatically been split into an ecology vs. economy opposition.

II. Ideologized Utilitarianism

Utilitarianism, in the form of the Marxist model of social development, caused a quick destruction of the environment in Eastern Europe and the former Soviet Union. According to the idea of Communism, the environment can become valuable only through human reshaping. By turning the primeval wild into the "proper" environment, serving humans, HS subjects can actualize their human personhood. Marxism, operating with the axiological category of "humanized Nature", is remarkably unfavorable to environmental protection. Similar to Christianity, with its formulas of "subduing the Earth to man" and "ruling over every living thing that moves upon the Earth", Marxism promotes a grasping attitude towards the nonhuman forms of life,

² Pragmatism, as an American mutation of utilitarianism, seems – from the perspective of the historical experience of American society – to be so original that its philosophical roots (i.e. European positivism) remain underrated.

standing with capitalism against the natural environment:

“...the great civilizing influence of capital [is that with it] for the first time, nature becomes purely an object for humankind, purely a matter of utility; ceases to be recognized as a power for itself; and the theoretical discovery of its autonomous laws appears merely as a ruse so as to subjugate it under human needs, whether as an object of consumption or as a means of production.”³

And the primacy of social policy over economic policy in the countries of “real socialism” resulted in the arousal of the consumer mentality, with a simultaneous technical inability to neutralize pollution. Social demands were satisfied at the cost of wasteful exploitation of the natural environment.

Ever since Charles Darwin put forward his theory of evolution, it has commonly been interpreted in such a way as to maintain the distinguished position human beings had had in the traditional Christian *Weltanschauung*. The anointed-by-God has turned into an aristocrat of evolution. The enormous changes that humans have made within the natural environment and their spectacular technological achievements have caused – in the context of primitive fear of the environment – a rapture over human powers and resulted in human self-sanctification, serving the justification of a particular human right to govern the environment. Humans keep up an illusion of their advantage over “every living thing” by transforming the environment.

Since HS thinks its civilization is a victory of spiritual Good over material (natural) Evil, the destruction of natural structures of life (e.g. ecosystems) functions in common consciousness as the creation of better conditions of life, or as the confirmation of the ontological autonomy and might of HS. Culture is believed to be an evolutionary end as the only right form of life organization, therefore the eco-crisis is not interpreted as resulting from a value-failure of culture, showing the moral limits of human freedom, but as a minor technical fault. Even for K. Marx and F. Engels, Darwin’s theory, as presenting a too impersonal, animal, approach to natural history, was hardly acceptable. They recognized it as a particular satirical metaphor of social relations in the England of 19th century.⁴ Marxism, synthesizing

³ Karl Marx, *Grundrisse. Foundations of the Critique of Political Economy* (New York: Random House, 1973), 409-410; see also 366, 611-613, 706; Karl Marx & Frederick Engels, *Collected Works*, vol. 5 (New York: International Publishers, 1976), 39-40; vol. 3 (1975), 275-277, 304-306, 345-346; vol. 25 (1987), 270, 459-460; K. Marx, *Capital: A Critique of Political Economy*, vol. 1, (Chicago: Charles. H. Kerr & Company, 1906), 48-54, 422-424, 561-565.

⁴ K. Marx & F. Engels, *Collected Works*, vol. 41 (1985), 380-381; see also vol. 25, 331, 582-585; and *Marx and Engels on Ecology*, edited and compiled by Howard L. Parsons (Westport, Conn.: Greenwood Press, 1977), 141-144. Marx and Engels looked for a unified theory of moral progress in universal history, therefore neither Darwin’s original theory of evolution nor social Darwinism could meet their requirements. An issue remains the possible influence of H. Spencer’s evolutionary ethic on them.

the chauvinistic humanism of F. Bacon, R. Descartes, and J.S. Mill's utilitarianism, with Hegelian (essentially Neoplatonic) tradition, is a typically axiological vision of universal history. The religious division of reality into spiritual-cultural *sacrum* and material-natural *profanum* was preserved within Marxism.⁵

The anthropocentrism of Marxian philosophy is an expression of humans' idea of their evolutionary predestination. According to a 'normative logic' of universal history, HS is a final, supreme value that emerged in the process of evolution. As a consequence, the teleonomic (relevant to adaptation) properties of HS are sanctified. Particularly, the ability as well as the necessity to work in order to accommodate the habitat to the needs of an unspecialized animal such as HS became a kind of absolute in Marxian theory. Activity as such is identified by Marxism with the actualization of humanness, and therefore is an end in itself. Human work has the status of creation, the highest form of which is the social production of merchandise. This creation means processing and transforming the natural environment. The environment is supposed to be naturally subordinated to human ambitions as material in which HS realizes its evolutionary greatness.

By work, HS not only develops his social nature but also, in Marx's conviction, reproduces Life-on-Earth as such. Work transcends a dimension of productive labor and acquires the status of praxis – a unique *vis vitalis*, or demiurgic might, embodied in HS. Praxis is a many-sided process of creating culture which is supposed to be the only realm of values. The multiplication of cultural needs is identified with the spiritual enrichment of man. Through praxis HS becomes a species for itself, and this way that which in the philosophy of G.W.F. Hegel was the act of "the self-cognition of Mind/Spirit", in that of Marx yielded speciesism:

"In creating a *world of objects* by his practical activity, in his *work upon* inorganic nature, man proves himself a conscious species-being, i.e., as a being that treats the species as its own essential being, or that treats itself as a species being. Admittedly animals also produce. They build themselves nests, dwellings, like the bees, beavers, ants, etc. But an animal only produces what it immediately needs for itself or its young. It produces one-sidedly, whilst man produces universally. It produces only under the dominion of immediate physical need, whilst man produces even when he

⁵ [1] The Francis Bacon's possessive humanism was clearly declared in his *Novum Organum* (see www.gutenberg.org/files/45988/45988-h/45988-h.htm) as well as in many other works of him; also see: *The Philosophical Works of Francis Bacon*, ed. by John. M. Robertson (New York: Routledge, 2011), *ibid.* Robert L. Ellis, *General Preface to Bacon's Philosophical Works*, 13-38; Benjamin Farrington, *Francis Bacon: Philosopher of Industrial Science* (London: Lawrence & Wishard, 1951). [2] The idea of normative dialectical logic of universal history, which pervades the whole system of Georg Wilhelm Friedrich Hegel, is distinctively expressed in his: (i) *Lectures on the Philosophy of World History* (Cambridge: Cambridge University Press, 1975), (ii) *Phenomenology of Spirit* (Oxford: Oxford University Press, 1977), and also (iii) *Aesthetics: Lectures on Fine Art* (Oxford: Oxford University Press, 1998)

is free from physical need and only truly produces in freedom therefrom. An animal produces only itself, whilst man reproduces the whole of nature. An animal's product belongs immediately to its physical body, whilst man freely confronts his product." "...Man knows how to produce in accordance with the standard of every species, and knows how to apply everywhere the inherent standard to the object." "Through this production, nature appears as *his* work and his reality. The object of labour is, therefore, the *objectification of man's species-life*: for he duplicates himself not only, as in consciousness, intellectually, but also actively, in reality, and therefore he sees himself in a world that he has created."⁶

Post-Baconian/Cartesian humanism has been an ecologically catastrophic ideology of emancipation from and domination over the laws of Nature. This axiological isolation expresses a longing for a specific autarky, and therefore HS creatures tend – by an invasive “humanization” of the environment – to make themselves the only form of life on Earth. In Marxian ontology, the grandeur of HS is *ad hoc* assumed in the teleological course of evolution. This is the ontology of axiological preformation of human nature. The self-realization of humans' extraordinary capabilities is executed by their creative activity, according to the axiological schedule of History. By transformation of the environment, HS performs the Promethean liberation of the species from biological fetters, or from the murk of “animality”. That is why the idea of environmental protection must have seemed anti-humanistic *ergo* anti-Communist.

The axiology of Marxism, like pro-capitalistic liberalism, corresponds to the aspirations of man of the industrial era, because it expresses human dynamism and a will to control the natural environment. The Baconian idea of a struggle against Nature, and the study of Nature in order to master it, is both stressed by Marx and present in the consciousness of contemporary societies. The 19th century, when Marxism originated, was a period of important discoveries in the natural sciences, and of achievements in the utilization of natural processes. Although the century of “steam and electricity” was a period of accelerated “transition from ape to man”, Marx considered capitalistic social structure to be an animal-like, shameful stage in the evolutionary mission of HS.⁷

The Marxian philosophy of history tacitly operates with a religious category of

⁶ K. Marx & F. Engels, *Collected Works*, vol. 3, 276-277, see also 292-306, 322, 336-337; vol. 5, 3-5, 31, 44, 54; vol. 25, 106, 254ff, 330-331, 452-460; vol. 26 (1990), 388ff; K. Marx, *Capital*, vol. 1, 50, 197-206, 406 (ibidem a footnote nr. 2); vol. 3 (1909), 800; *Grundrisse*, 471-490.

⁷ K. Marx & F. Engels, *Collected Works*, vol. 3, 269-278, 307-308; vol. 4 (1975), 328ff, 368ff, 394ff, 582; vol. 25, 260-261; K. Marx, *Capital*, vol. 1, ch. 23, and pages 252, 291-292, 408ff, 429-430, 436, 447ff, 460-466, 478, 510ff, 548-556, 697ff, 704ff, 718ff; *Grundrisse*, 304ff, 363-364

Being-Logos that gets consummated in a Socialized Man, who is – in the “person” of the Proletariat – a re-integrated *Homo Creator*. The Hegelian category of “Objective Mind/Spirit” was transformed by Marx into the project of Communist culture.⁸ The idea of Communism was a vision of human emancipation from animality by means of work converting the environment. The industrial working class was charged by Marx with the part of a liberator. The class, personifying the human activity within the natural environment, was supposed to lead humankind into a social-political dimension of freedom, justice, and de-alienation. Marxism turned out to be a pragmatic as well as messianic advancement of utilitarianism.⁹

“Anarchy in social production is replaced by systematic, definite organisation. The struggle for individual existence disappears. Then for the first time man, in a certain sense, is finally marked off from the rest of the animal kingdom, and emerges from mere animal conditions of existence into really human ones. The whole sphere of the conditions of life which environ man, and which have hitherto ruled man, now comes under the dominion and control of man, who for the first time becomes a real, conscious lord of nature, because he has now become master of his own social organisation. The laws of his own social action, hitherto standing face to face with man as laws of nature foreign to, and dominating him, will then be used with full understanding, and so mastered by him. [...] The extraneous objective forces that have hitherto governed history pass under the control of man himself. Only from that time will man himself, with full consciousness, make his own history [...] It is humanity’s leap from the kingdom of necessity to the kingdom of freedom. To accomplish this act of universal emancipation is the historical mission of the modern proletariat.”¹⁰

⁸ This, in fact, religious vision of History was cleverly used by V. Lenin for political goals. In his conception, God, Mind, and Proletariat are replaced by the institutionalized Party, representing “the interests of the masses”. In Eastern Europe, we dealt with the Leninist schism rather than with the application of the original K. Marx’s theory. As an example of neo-Marxian movement can be supposed the Polish trade union movement called “Solidarity”.

⁹ Although Marx seems to have noticed the problem of “utilization of the excrements of production”, which did not exist for such a born politician as Lenin, we can only treat Marx’s views as naive optimism. Marx thought of securing the exploitation of the Earth for future human generations, but *not* of ecology-based protection for the sake of the biosphere. The historical defeat of “real socialism” was also caused by some ecological factors. See K. Marx, *Capital*, vol. 3, 120-123, 901-902, 944.

¹⁰ K. Marx & F. Engels, *Collected Works*, vol. 25, 267-271; see also, vol. 3, 159, 165-168, 184-187, 273-275, 279-282, 296-306; vol. 4, 35-37; vol. 5, 38, 49, 52-53, 56, 58, 79-81, 87-89; vol. 6 (1976), 477-517; K. Marx, *Capital*, vol. 3, 954-955.

III. Narrow-minded pragmatistic approach

A significant factor of the eco-crisis seems to be the cognitive deficiency of modern (as well as “postmodern”) humans, which is induced by speciesism. An example seems to be Charles S. Peirce’s theory of meaning, understood as a category determined by the sum total of the necessary practical consequences of the truthfulness of a given concept, as well as his understanding of truth as a conceived real possibility for a state denoted by this concept (included in a conditional proposition) to come into being. A hypothesis is meaningful if it is underlain by human ability to conceive its practical consequences. The relation of truth refers to an acting subject’s mentally invented world. Ethical truth consists in the conformity of a given normative statement with a human subject’s convictions on what the world should be like. From this perspective, the human being is an agent experiencing neither moral nor intellectual inhibitions in creating (first mentally, then practically) such a reality in which he wants to live.

Having rejected the position of methodological skepticism, the pragmatist has begun to ignore the objective laws of reality and to force his own creations on the biosphere. Physical feasibility of execution of a given change within the environment has become an objective coefficient of truth of this environment. The environment is understood to be what we can make of it, or what we believe it can be like, but not to be an evolutionary product in itself. The evolution is interpreted as tending to actualize common rationality, in accordance with the Hegelian tradition of the axio-logical essence of History. That normative rationality is supposed to find its embodiment in the unified society of HS. It is a totalitarian vision of a culturally determined order. Peirce’s philosophy seems to have abolished both the metaphysical and logical distinctions between the fact and the possibility. Metaphysically rooted speciesism is the main axiological determinant of pragmatism’s “truth”. Thus, the ethic of pragmatism promotes a systematical transformation of the natural environment, which is supposed to be human destiny and which cannot even be falsified by acting people. It is so because the truth of the material world is always consistent with human interests within this world, or with what can physically be executed in the biosphere. Even the states of pollution are brute facts confirming the possibility of them being performed by HS.

And in William James’s pragmatism, the truth/falsity of an idea is identified with the process of its practical verification/falsification. Ideas function as schedules of activity and the truth of the world is constituted by states-of-affairs that have already been executed within this world. The truthfulness of an idea (or a proposition) consists in the possibility of practical functioning of this idea. Every proposition can be justified, if one acts according to what is claimed in this proposition. Verification becomes actualization. James devaluates theoretical reconstruction of objective being, and promotes a kind of nonintellectual humanistic meliorism. And the presence of an axiological category of “human satisfaction” as a component of truth is also alarming; truth must always meet human interests, hence choices of true hypotheses

become situational. This is an obvious danger to the environment, if “truth” is identified with variable human needs or with utility, and if our attitude to the natural environment is determined by a “logic of human interests” (or “humanized logic” – promoted by C. F. S. Schiller).

Pragmatism is a philosophy of no principles, or without a regular foundation in the nomological objectivity of the world. As a kind of particular worship of humanly-generated changes, the pragmatist ethic represents a deontology of human activism as such. Since the environment is actually always influenced by the activity of humans, whether they accept (or even intend) changes made or not, both shallow calculative utilitarianism and pragmatism represent a meta-consequentialist profile of applied ethics. And so, cognitive activity was recognized by Marx – according to the line of F. Bacon, R. Descartes, and J. S. Mill – to be the most aristocratic characteristic as well as moral obligation of HS, and praxis also functions as a crucial epistemological category. Humans can acquire basic knowledge about the world while transforming the environment in the process of production. This knowledge is supposed to serve, in turn, the efficient conversion of the natural environment into a cultural one. Maximization of consumption, as the ultimate purpose of cognition, made the epistemological perspective of Marxism drastically narrow.

Learning, reduced to an industrial processing of the environment in order to satisfy culturally created needs, can only supply information about the properties of processed material, and about this fragment of reality within which this satisfaction takes place. Pragmatists, enclosed in a cultural cage of their own interests and products, can merely know selected properties or regularities, whether physical, biological or social, isolated from the wider structures of their natural environments. What pragmatists actually learn is both a newly created reality of the transformed environment and the methods of this transformation. And that is because the pragmatist mistakes local regularities which he/she deals with, especially laws ruling cultural reality, for the laws of Being as such. He/she also thinks changes made by him in the environment to be a confirmation of his adequate recognition of the laws of Nature. But knowledge about the environment, acquired with the aim of “ruling over” this environment, must be false because it is biased wishful knowledge. Transformation is a simultaneous interpretation, generating a picture of the environment consistent with human axiological self-portrait and interests; and at the same time, this world is “made” of scientific theories (especially by some axiolinguistic images of the world) and put through an axiological filter of the pragmatic purposes. Not being able to conceptualize the humankind-friendly conditions of existence properly, pragmatism only increases the isolation as well as malfunctioning of HS in the biosphere. While forcing his own rules against the natural standards of environmental quality, the pragmatist lives within an environmental fiction. And so, in former Communist countries, ideologically absolutized labor trapped people within the grind of industrial production and led them to self-alienation from the natural environment.

“...the more ruthlessly and disinterestedly science proceeds the more it finds itself in harmony with the interests and aspirations of the workers. The new tendency, which recognised that the key to the understanding of the whole history of society lies in the history of the development of labour, from the outset addressed itself preferentially to the working class and here found the response which is neither sought nor expected from official science.”¹¹

Marx stressed, when criticizing L. Feuerbach’s “contemplative materialism”, that HS can only learn the environment already transformed, and that this “truly human” environment is the real matter of investigations in the natural sciences. The epistemological fallacy of pragmatism consists in a vicious circle between the transformation of the already transformed environment and the cognition of consecutive effects of this transformation. A result is a particular cultural ghetto of information as well as the reduced semantic space of the positivistic paradigm. The science of ecology itself can easily be applied with views unfriendly to the environment; we can use ecological findings in order to “subdue” the natural environment. Therefore an “ecological ethic” should also be conceived as a deontology of ecology, or as the ethic of application of ecological knowledge. Environmental ethics cannot avoid the issue of human intentions in ecological investigations.¹²

IV. Applied Utilitarianism

The present philosophy of environmental protection is based on the “human right to the natural environment”. Politicians do not hesitate to design nonhuman forms of life to be buffers absorbing pollution and noise. Humans ignore both themselves and other species as the constitutive elements of the biosphere, thereby ignoring the vital values-based right of nonhumans to an unpolluted environment. All species pay for the propagandistic, economic and legal satisfaction of deciders in the field of so-called environmental protection with their lives.

An example of hypocrisy as well as the ecological danger of utilitarianism as a philosophy of environmental policy is the case of *Klempicz*, in Poland. *Klempicz* is a small village in *Puszcza Notecka* (the *Notecka* Big Forest). The *Puszcza* is a semi-wilderness area of ca. 1.000 km² (625 mi²), 43 km (27 mi) North-West of the City of Poznań (pop. 600.000), the capital of the geographic-historic province *Wielkopolska*

¹¹ K. Marx & F. Engels, *Collected Works*, vol. 26, 398; see also, vol. 5, 3-5.

¹² K. Marx & F. Engels, *Collected Works*, vol. 3, 249, 301-305, 322, 337, 345; vol. 5, 3-5, 35-41; K. Marx, *Capital*, vol. 1, 201-205; K. Marx, *The Introduction to The Contribution to the Critique of Political Economy*, in *A Contribution to the Critique of Political Economy* (New York: The International Library Publishing Co., 1904), 276ff; *Grundrisse*, 456-458, 539-542, 690-695.

(Greater Poland).¹³ The *Puszcza*, mostly consisting of a pine-monoculture, is the second largest forest-area in Poland. A comprehensive list of fauna and flora of the *Puszcza* has never been done, due to the assumption that the forest is of no natural intrinsic value. The forest has the status of an instrumental value, and has been ignored as a living structure tending towards its ecological climax. As recently as 65 years ago, there was quite a rich biocenosis (including wolves) in the forest, but timber management policy and hunting have destroyed its environmental quality. There is, however, a population of ravens, a protected species in Poland, that dwells therein.

There are three small preserves on the outskirts of the forest, but it itself is regularly exploited for timber. This exploitation always required careful management because the *Puszcza* played a crucial role in the water-balance of the province. *Wielkopolska* is a leading area for agriculture in Poland, but it has been drying up and becoming more steppe-like for years. The degradation of the soil is due to a synergism of factors: an extremely scant yearly rainfall (520 mm), deforestation that causes an evaporation of 75% of the rainfall, the overuse of artificial fertilizers, inadequate watershed management in the past (which resulted in the destruction of natural water-reservoirs), and the exploitation of brown coal mines (connected with a coal power plant) in the *Konin* subregion, of which inhabitants have recently been protesting against the continuation of exploitation because the groundwater table is dramatically dropping in the region. Moreover, the aquifers are contaminated due to an insufficient number of sewage treatment plants, fertilizer as well as liquid manure run-off, the use of pesticides in the past, and leaks from toxic waste buried in landfills or pits. The *Warta*, the main river of the region, was 95% sewage at that time. The *Puszcza* is hardly to be overrated as an environmental agent, keeping a sufficient groundwater level for living and agriculture. In view of the ecological as well as economic particularity of the region, no type of industry consuming much water is acceptable in there.

In the Fall of 1988, the construction of a nuclear power plant was begun in *Klempicz*. The 4.000 megawatt (MW) power plant was to function with Soviet technology. The structure was to cover an area of 618 acres, consisting of 371 acres of *Klempicz*-fields and 247 of deforested acres, plus a 3 km protection zone around it. Within the zone (half-forested and half-agricultural), farming, but not permanent residence, was to be allowed. Two and a half cubic meters a second of water were to be derived from the *Warta* River for the needs of the plant, which was over 10% of the average, too low as such, *Warta* flow. It required a dam with an impoundment and a pumping station to be built for the use of the power plant. The water-works were

¹³ *Wielkopolska* constitutes 11% of the area of Poland and is inhabited by 10% of the Polish population. There are two small national parks as well as over 100 nature reserves, landscape parks, and areas of protected landscape within this region. Forests cover 25% of the *Wielkopolska*-area (Poland - 28%; Europe - 33%).

also to contain an additional storage reservoir with a pumping station, placed in the middle of a 7 km (4,4 mi) pipeline between the river and *Klempicz*. The entire distance was included in the area designed for deforestation. Polluted water from the river was to be evaporated out over the *Puszcza Notecka*, after having been passed through a circuit within the power plant.¹⁴ All 43 families (139 inhabitants) of *Klempicz* were to be displaced. Farmers were offered rates of 100% higher than regular prices for their lands, and almost all of them were willing to leave the village.

At the start, three farms were bought up, a 13-acre area of surrounding timber (including some unique old trees) was cut off, and 15 acres of State land were annexed. This provided, altogether, 104 acres for the building site, including 30 acres of so-called “pilot-base area” that were fenced. This area was leveled and covered by sand (some carp-fish in a small pond were buried alive by the way). Additional power and telephone lines were connected, and new drinkable water intakes were sunk. Ten thousand employees were to be engaged, directly and indirectly, in the construction and to live in neighboring villages. This required new social facilities, sewage treatment plants, and an increase of water supply.¹⁵ Two thousand persons were to be on the staff of the working power plant. They were to live, with their families, in the vicinity. The plant was to start working in 1997.

But a general public protest resulted in the building being discontinued by a decision of the government in April 1989. The protest was conducted by the Polish Ecological Club (*Wielkopolska* Division) and by some scientists of the Adam Mickiewicz University of Poznań, and assumed the forms of mass public demonstrations, protest-petitions signed by thousands of people and sent to the Polish Parliament in Warsaw, and cost-benefit counter-appraisements. Legal proceedings against the investors and contractors of the plant were also instituted before the regional court of Poznań. A strong argument against the building was that all money, allocated for the nuclear power plant, should be invested in the introduction of environmentally clean technologies to the traditional processes of power production. (The energy production sector, based on coal, is the main air-polluter in Poland). Another argument was that Poland did not really need more power plants, but needed to be more thrifty in terms of use as well as distribution of energy (4.000 MW would be about 13% of total energy production in Poland, which amounts to average loss on transmitting wires). It was also not clear where and how the radioactive waste would be disposed of.

¹⁴ It was also not certain whether the water-works would be resistant enough against the chemical properties of contaminated *Warta*-water.

¹⁵ In the project, 5% of funds were appropriated to various investments for the benefit of neighboring small country-towns.

V. Cynical Utilitarianism

It is doubtful whether the opponents would have been successful in stopping the construction if that power plant had been promised to be economically profitable. Fortunately, the calculated capital (ca. \$ 1.200.000.000) and working costs of the plant proved to be higher than expected profits. And this was a decisive reason for discontinuing the construction, not a particular ecological danger inherent in the functioning as well as the possible breakdown of such a power plant. But in this *temporarily* victorious social action against the construction, nonhumans were entirely left out of account. The protest of ecologically oriented public opposition – which used economy-related arguments, as they were the most persuasive for the Warsaw decision-making lobby – regarded only direct jeopardy to people. As soon as this jeopardy passed, the fate of the *Puszcza Notecka* ceased to be an object of social interest, although the forest has been endangered all the time by the anti-environmental policy of consecutive governments.

The location itself of this power plant proved that nonhuman living beings were designed to serve as a buffer between HS and the plant.¹⁶ If a possible catastrophic breakdown did not threaten people, this power plant would not be an object of anybody's interest, and its radioactive as well as non-radioactive impact on the forest would be allowed. At the moment of the end of its working-life, the plant would stand within a dead, contaminated field. Such a nuclear power plant was to be an open system of water-circulation after all! Utilitarians would sacrifice the *Puszcza* if it could effectively protect people against the environmental impact of the plant. The formula of "protection zones" does not cover nonhumans. It would seem obvious that a power plant of this kind should be built, if it were really necessary for economic reasons, within a deserted and specially prepared area. But then, the contamination of crops on the neighboring fields would alarm the public. That is why the *Puszcza* was, in advance, destined to die. The decision, which stopped construction was an element of political tactics of the still governing but declining Polish United Workers' Party. The original decision to construct a nuclear power plant in Poland had a purely political nature as well: the concentration of energy is the concentration of power. Moreover, one may suspect that the production of *plutonium-239* would have taken place in the plant, and it is known how lucrative international black market for it is. The incentive of snobbery, so typical of totalitarian systems, acted as well.¹⁷

The economic and ecological aspect of the water-shortage in *Wielkopolska* was

¹⁶ The *Klempicz* area was chosen on the grounds of satellite-pictures, and an officially given reason for the location was: "favorable geological conditions." Generally, geological determinants as well as an easy access to water are basic criteria while choosing the potential construction site for a nuclear power plant.

¹⁷ Compare Fritjof Capra, *The Turning Point* (Simon & Shuster, New York, 1985), 239, 247-248.

emphasized by utilitarian social opposition for political reasons first of all: the first democratic general elections to the Polish Parliament was forthcoming in June 1989. Since the decision of April 1989 left the status of *Klempicz* suspended, not really winding down the building site, it was obvious that the government was stalling. Therefore all those who wanted to be elected and to have political careers, especially the activists of the “Solidarity” movement, conducted a loud antinuclear campaign. It was in fashion to be “green” at that time. The first non-Communist government neither confirmed the original April decision nor gave up building the plant. This government was actually forced to stop the construction due to lack of money, and not for ecological reasons, in November 1989. Moreover, another nuclear power plant (called *Żarnowiec*) was being built in a northern part of Poland at the same time. The nuclear lobby resigned from its plans regarding *Klempicz* ultimately in September 1990, when it became obvious that there would be no funds for such investments in Poland at all. Afterwards, the whole building area was taken over by the State Treasury, returned to the management of local authorities, and offered for sale at that time.

Yet, nobody has wanted to buy 104 acres of sand. Besides, Poland could not afford large investments in the nineties, and this fortunate paradox meant that the *Klempicz*-area was temporarily saved from industry for *economic* reasons. However, one could meet written and spoken statements that it is necessary to take advantage of hitherto invested money, and that the farmers of *Klempicz*, who looked forward to a new beginning, have been wronged. In fact, they still live in the village and are disappointed. They received pecuniary indemnities (ca. \$ 73.000) for “moral injuries” and for a temporary interdiction on reconditioning their houses. These utterances bode ill for the *Puszcza Notecka*. Nobody has intended to return the carved-out area to the primeval nonhuman inhabitants and to reforest it or to let a natural succession take its course.¹⁸

VI. Self-entrapped Utilitarianism

Since 1992 the Polish authorities have taken over the Communist routine of thinking of environmental affairs. There has been no program of either proper environmental policy or environmental education in Poland. Particularly, there has been no new policy of energy management, and a powerful industrial lobby can efficiently frustrate the pitiable efforts of the Ministry of Environmental Protection (MEP, which commonly is called “Ministry of Environmental Destruction”, especially

¹⁸ A hidden factor, working in the protest-campaign, was that the Poznań-region has always felt itself to be overexploited by the Warsaw political center. People of Poznań often employed a half-serious, half-ironic argument “Build that power plant closer to Warsaw!” In summer 1992, a great fire consumed ca. 15.000 acres of the *Puszcza Notecka*, which, at the same time, has created an opportunity for the Forest to be self-renewed by way of natural secondary succession. At present (2018), Poland is supposed to have the best forest fire monitoring in Europe.

due to its hidden dependence on furniture business lobby). By raising the prices for power, the government tries both to exact social acquiescence for the nuclear option in the power industry and to keep coal power plants supplied with money for fines that this sector is charged with for polluting the environment, which is a vicious circle policy.¹⁹

So far, free-market rules have had a devastating impact on the environment in Poland. For example, the EU (European Union) scheme for greenhouse gas emission allowance trading (or the cap-and-trade system; see: Directive 2003/87/EC) is not at all conducive to the introduction of environment-friendly technologies. This country has also become a typical victim of eco-colonialism. Real problems have included the international midnight dumping of hazardous waste in this country, and commercial hunting organized for foreign “tourists” as well as wasteful lumbering carried out even around and in national parks (!). The MEP, which is dominated by the timber management lobby, does not oppose such activity or even makes a profit on issuing legal permits for it. In fact, the MEP has turned out to be one of the most environmentally destructive agents in this country, and real environmental protection is chiefly based on the efforts of NGOs.

The politicization of the environmental protection movement has already been widespread. “Environmental protection” has become a slogan, employed in both political fights and business. An example is the extortion of financial profits by “pro-ecological” organizations from entrepreneurs active within various areas of business involving environmental hazard, in return for desistance from organized public protest-actions. This utilitarian phenomenon, destroys the emotional (axiological) ties between HS and other species entirely. And the divergent, conflicting opinions of experts, associated with various political lobbies, do not ring true to the public any more. The scientists – in their roles as the members of various window-dressing advisory councils – are taken unfair advantage of for current political purposes. The actual political influence of intellectualists is faint in Poland.

Has the fate of the *Puszcza* been merely postponed? Will utilitarians protest if such a plant is built after “modern technology”, e.g., an advanced gas-cooled reactor is applied? In fact, according to the latest governmental “Energy Policy Guidelines until 2030” – announced in January 2009 – two or three nuclear power

¹⁹ Unprofitable State factories have been exempted from these fines, which deprives environmental protection of its financial base. Moreover, the energy production sector itself consumes one third of the energy it produces, and cost of labor in this sector is three times as high than governmental allocation for environmental protection. However, legal regulations make the commercial diversity (within the range of 10%) of energy prices possible, according to the distance between a given unit of power production and a client. Generally, Polish coal power plants generate ca. 300 mln € of loss a year, and the energy production sector is not competitive within the realities of EU; the more, since 2013 Polish power plants have been obliged to take out special allowances for greenhouse gases emission, which are expected to amount to ca. 40 € for a ton. And for years the oil lobby has been pushing back the introduction of rape-fuel into certain sectors of public transportation and agriculture.

plants are planned to be built in Poland by 2030. What locations are being taken into consideration? Again *Klempicz* and *Żarnowiec*, as well as some other alternative places in Northwest Poland. The building of the first power plant is to start in 2016 and the power production is to be launched in 2020, the second one is to be built by 2023, and the third one by 2030. The power total is predicted to be as much as 5.000 MW, which would amount to about 10% of total energy production in Poland then. The French, South-Korean and Canadian technologies are under consideration to be used.

The reasons to develop or not to develop a nuclear power production are merged:

1. A growing demand for energy in the context of the progress of civilization as well as the so-called greenhouse effect. The present technologies of coal processing are not competitive with “clean” nuclear energy production. The demand pushes up the prices of coal, natural gas and oil as well, so nuclear power production expenses seem to be significantly lower than those of fossil fuels as well as wind or solar energy. The alternative renewable energy sources as such are too expensive so far, and the power gained out of them is subsidized in the EU. There is not enough biomass produced in Europe in order to meet EU limits of CO₂ emission, and to reach the scheduled level of 20% of total energy production to be obtained from renewable sources. But in order to prevent the import of timber from the countries where uncontrolled cutting-off of forests are executed, the EU is preparing a special directive called the Illegal Timber Act. Another factor is that some rare earth metals (e.g. neodymium - Nd), needed for the production of fixed wind turbines, are available only from the People’s Republic of China which has recently been commonly sued by the EU, USA, and Japan before the World Trade Organization for export restrictions resulting in forcing up prices of these metals on the world market; additionally, the steel which the turbines are made of is also imported from the PR China, where the power (produced by environmentally devastating methods!) as such is cheaper and so the cost of steel production lower.

2. Since there are very rich deposits of black/brown coal in Poland after all, a new high-yield option – which would meet the EU norms for CO₂ emission at the same time – can be the technology of coal gasification, and a coal gas energy basis for this country; however the brown coal mining itself is destructive for the environment. At the same time, some hopes related to shale gas seem to be false due to too scarce deposits as well as some reservations about the environmental impact of its exploitation. Another option is related to considerably much arable land in Poland that can be well used for maize growing in order to then gasify corn.

3. In the case of Poland the political factor is crucial. The Energy Policy Guidelines imply the diversification of energy sources (the 92,5 % of electric power is acquired from brown/hard coal in Poland nowadays) as well as suppliers, especially on account

of too large a dependence on oil and natural gas supplies from the Russian Federation, which has been recognized as politically dangerous.

4. The new EU legislation concerning the greenhouse gas emission management is to be gradually implemented in the years 2013-2025.²⁰ It will be required for carbon dioxide (CO₂) emitters (e.g. coal power plants) to purchase greenhouse gas emission allowances by auctions (and fines for illegal emission, which must be paid from profits, do not exempt a factory from the duty to take out allowances), which could raise power prices by 90 % in Poland.

4.1. It is calculated on that capital outlay for a nuclear power plant, which amounts to 3 mln € for 1 MW, will be compensated for by the efficiency of energy production. However, we must add the costs of training thousands of workers (at least 1.000 persons will be employed in one nuclear power plant) as well as the costs of social education. And so, a new subject of study "Nuclear Energy" has recently been launched at the Poznań University of Technology.

4.2. A social factor: is a national referendum needed or not to get social consent? Nowadays, ca. 50 % of the polled Polish society (also in the *Klępicz* area) is willing to agree to a nuclear energy program. The Polish government is not willing to consult on its nuclear energy plans – especially the ones concerning the possible locations of the first power plant of this type – with the society. When the secretly taken – at the highest governmental stage – decisions about the first locations (there are ca. 85 of them now) came to light, they triggered off robust protests of local communities (e.g. the village of *Gąski* in the *Mielno* district), and the potential touristic appeal of Poland as the "no nuclear country" is emphasized. But, at the same time, other villages (e.g. *Kopań* also in the *Mielno* district) want to profit by having a nuclear power plant placed within their vicinities.

5. Unfortunately, some hidden and not-balanced costs of building, exploitation, shutting down and disassembly of a nuclear power plant, as well as the costs of nuclear waste disposal are usually passed over when political decisions are made.²¹

6. Even within the liberal economic system a nuclear power plant is the type of investment which must be guaranteed by a state budget, so then it is a production unit that functions outside the free market.

7. A potential danger of radiation and consequences of a breakdown. However the modern nuclear energy sector is much safer than the chemical or construction industry; it is crucial to keep to safety rules and procedures, which were entirely ignored in the *Chernobyl* case by the way.

7.1. The complex issue of nuclear waste disposal. There is only a single radioactive

²⁰ http://en.wikipedia.org/wiki/European_Union_Emission_Trading_Scheme; http://ec.europa.eu/environment/climat/emission/index_en.htm.

²¹ Some dynamic decision criteria for profitability of a potential investment, e.g. NPV – Net Present Value; IRR – Internal Rate of Return; SPBT – Simply Pay Back Time, see: *The Economic Future of Nuclear Power - A Study Conducted at The University of Chicago* (2004).

waste stockpile in Poland now, and local communities are, as a rule, against the placement of nuclear waste on their territories. A banal paradox is that German as well as Byelorussian stockpiles are functioning right beyond Polish border.

8. The possible secret production of *Pu-239* for commercial reasons and the threat of terrorist assault.

In the case of Poland, there are some options to improve the energy balance: the upswing in the effectiveness of energy use by about 20-25 % is possible; the increase in participation of the “green power”, i.e. renewable and tax-free power resources like biomass and biogas, wind and solar energy etc) by 24% (sic!) within the total balance of energy in this country, which is possible to be gained according to some experts by 2020; the implementation of pioneering technologies – partly financed by the EU – such as CCS (Carbon Capture and Storage), which means capturing, liquefying, then forcing CO₂ about 2 km underground and then dissolving it in brine – this project, which seems to be pretty expensive, would offer job opportunities for hundreds of employees at the same time. On the other hand, the production of alternative energy is not – as was mentioned – yet cheap, and even a German company, which is specializing in the installation of windmill power stations, can operate in Poland under the condition of financial participation in building a new coal power plant which will provide jobs for miners.

In Germany itself, the nuclear energy sector is obliged to co-finance – through a special state fund – the projects of alternative technologies in energy production. And some dissenting voices from the Federal Republic of Germany, where a failure of nuclear power plant *Kruemmel* (in *Land Schleswig-Holstein*) happened in 2007, can be heard in view of a possible location of one of Polish nuclear power plants close to the Polish/German border. In 2011, after the Fukushima disaster, the German government has announced the total withdrawal from the nuclear option in the energy production sector. In January 2012, 50.000 citizen signatures were collected in the eastern *Lands* of Germany for a petition to the European Commission against the Polish nuclear energy program which has been recognized as careless and nontransparent. On the other hand, the Republic of Slovakia as well as the Czech Republic had got problems with the launch of their nuclear power plants (*Mochovce* in Slovakia and *Temelin* in the Czech Republic) due to the strong objections from the side of the Austrian government. Austria and Poland are the only two European states free of nuclear energy, and in Polish public discourse (e.g. in published professional analyses) they even say that an “atom-free country” could be the tourist brand of Poland.

Since within a 300 km radius around the Polish border 10 nuclear power plants are working anyway, the building of an energy transmission network in order to take advantage of them seems to be economically advisable. The Polish government as well as some private entrepreneurs is willing to participate – as future co-beneficiaries – in building both new nuclear as well as traditional power plants (relying on coal

brought from Poland) and an electric power grid in and from Lithuania and Belarus. The Republic of Lithuania itself is interested in energy export because it has an energy surplus thanks to the new nuclear power plant *Ignalina-II* generating competition to six traditional power plants and their employees at the same time. If the alternative steps were taken in Poland by 2015, this country would gain an energy surplus beginning in 2021 and the launch of a nuclear power station would turn out to be unnecessary or at least not urgent. Investing in the international energy transmission network now will prove to be profitable when Poland is able to export energy in the future. And also, the Russian Federation (RF) is interested in taking part in the cooperative building of both a modern nuclear power plant in the *Kaliningrad* district (the RF enclave bordering Poland) and a network of high voltage electric power transmission lines, which would enable both countries to sell energy to third markets.

VII. Overcome Utilitarianism?

It is impossible to reconcile techno-economic as well as population growth with the preservation of the balanced genotypic wealth of Life-on-Earth. A basic moral problem seems to be the criteria for setting legal environmental quality standards. Until now, the natural capacity of an ecosystem for self-renewal has not served as such a criterion, but the visual quality of the environment, and the measurable impact of pollution on the human organism and on a material standard of living have so served. Pollution that does not seem dangerous for human animals becomes a permissible standard. Even the measurable indices of environmental degradation do not always become sufficient stimuli for protective actions, if this degradation is profitable for producers.

A necessary condition to get the environment preserved is a revision of human intentions towards this environment. Protective actions must be undertaken for the purpose of actual environmental protection and not with the aim of money to be made by “protection”. Effective actions require a real respect of humans towards their nonhuman surroundings. As it is plain to see in the example of the poor practical results of both the Rio Conference and Kyoto Protocol, the utilitarian model of policy is not able to get over the global environmental crisis. On the other side, the natural environment cannot be treated as a museum. The biosphere has created HS and has been keeping this species alive. Therefore only an ecologically proper model of culture (understood as an adaptational system) can survive. The aim of environmental ethics should be the defense of nonhuman life-structures against cultural hyper-pressure, which would be a defense of the honor of mankind at the same time. Neonaturalism, as I identify my standpoint, unequivocally determines the value preferences and subordinates financial interests to superior vital values, or the attributes and essential conditions of being a living creature. The structure of these values – both organismic values (e.g. health) and biotic community values

(e.g. eco-equilibrium) – as well as moral and aesthetic ones constitute a crucial state for the phenomenon of life to self-continue in the process of the natural selection of generated forms – the *environmental quality of life*. Since the biotic community is a value community, the proper function of powerful HS within the biosphere is the niche of moral responsibility for the survival of terrestrial biodiversity as such.

Post Scriptum (2012-2018)

In March 2012, the Polish government announced the launch of a nationwide education campaign aiming at the conviction of a majority of Polish society to the nuclear energy option. Since that time nothing has been decided as for the construction project as well as building investment of a nuclear power plant. Some alternate deadlines of the governmental declaration of a tight schedule of the building have been put off. It is because the building is impossible without a financial support of EU, but any investment of that kind which would be authorized (and subsidized) by a government cannot count on such a support. And this is up to the Germany, which decides about EU budget, and which – along with the support of Austria, which is the biggest player in the European market of the so-called green energy – promotes wind power plant industry, leaving entirely nuclear power sector to the private professional investors. At the same time, the Polish Energy Group (PGE), which is a limited company controlled by the Polish State Treasury, has been involved in Visaginas Nuclear Power Plant project (i.e. the mentioned *Ignalin-II*) in Lithuania, but finally PGE gave up after having recognized the investment as unprofitable for Poland. And in 2012, the Lithuanian society advocated against the building a new nuclear power plant in a nationwide referendum.

Meanwhile, the Polish entrepreneurs from alternative power sources industry are harassed by increased taxation because the government is looking for any additional incomes in order to cover the costs of some populist social programs. There are also disputes inside the government between an alternative energy lobby and the adherents of civilian nuclear energy. According to rational economic projections, since 2025 the wind power sector may meet 20% of Poland's demand for energy, while present proportions are: 66% - hard & brown coal (by 2050 ca. 50% of energy is still going to be produced from coal), 33% - natural gas, 1% - alternative sources. The existing power plants as well as transmission network are obsolete and some transmission losses reach 7% of total energy production. At the same time, the Polish government has intensively been promoting common automobile electrification (i.e. the introduction of a plug-in system). But such an automotive model increases the demand for rare earth elements (REE), of which production is monopolistically controlled by China, Russia, USA, and Brazil. A new governmental schedule for building the first nuclear power plant (with a total capacity of 1.000 MW) in Poland was to be announced in June 2018, but it has been not. The stalemate continues.

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