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Bioethics as the 'Third Culture': Integrating Science and Humanities, Preventing 'Normative Violence'

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Abstract

Integrative Bioethics engages in descriptive and normative fields, or in two cultures, as Snow puts it in The Two Cultures and the Scientific Revolution, *announcing though, in his later writings the emergence of a third culture that can mediate between the two. Thomas Kuhn in* The Structure of Scientific Revolutions *exposes the practice of a new paradigm of the teaching of history describing in fact the relation of science and humanities in the positivist era. The long standing reasons-causes debate that lay the groundwork of the implied incompatibility of the two cultures, as it reflects on the Collingwoodian anti-causalism of the philosophy of history, against Davidsonian causalism, may elucidate the problem of the 'marriage' of cultures. Taking a look on Collingwood's absolute presuppositions and Carnap's external to linguistic frameworks questions, will help us investigate the possibility of a coherent framework for integrated Bioethics. Can we frame a transdisciplinary field, where science and humanities as collaborating social practices, or as a new 'cultural policy' (according to Richard Rorty), will abstain from normative violence against each other?*

Key-words: *Kuhn; Snow; Collingwood; Davidson; Carnap; Rorty; reasons; causes; Bioethics*

I. Humanities and natural sciences

The overwhelming belief of the scientific revolution is that all problems can be solved only within the realm of physical sciences and mathematics. Logical positivism that dominated Anglo-American philosophy until the 60s, rejected all traditional metaphysics as meaningless. In the context of absolute dominance of physical science and mathematics, humanities for the first time in history have lost their leading role in education. Science and its methodology became the only valid procedure of producing knowledge and the organizing ground of human life.

In the first decades of the twentieth century, the modernist call for a unifying scheme dominated all scientific and cultural fields, even architecture and other arts. "Logical positivists argued for a unity of science; theirs was to be a unity achieved through a description of science that grounded all meaningful scientific activity on an observational foundation. Such a grand reductive unification participated in the broader cultural currents of modernism."[1] The modernist rhetoric of Russell, Neurath, Reichenbach, Schlick, and Carnap discredited philosophical tradition by giving primacy to experience over theorizing, discarding the greatest part of humanities as nonsense.

According to Kuhn, during the phase of new science:

"... in the development of a natural science, when an individual or a group first produces a synthesis able to attract most of the next generation's practitioners, the older schools gradually disappear. ... Those unwilling or unable to accommodate their work to it must proceed in isolation or attach themselves to some other group. Historically, they have often simply stayed in the departments of philosophy from which so many of the special sciences have been spawned."[2]

It is easy to conclude from this description of normal science - a narrative that has more to do with modernist physical sciences after the scientific revolution- that the departments of philosophy became a wastebasket for the old theories, from which nevertheless "many of the special sciences have been spawned" (Kuhn's philosophy of science being one of them). It was after World War II that through an antipositivistic reaction, primacy was given to theory.[3] But during the logical positivism era, the incompatibility of humanities with the physical sciences, and the cognitive sufficiency of the latter became established *credos* and were inherited by analytic philosophy. Thomas Nagel characterizes this stance of analytic philosophy as one of the directions of the problem of bringing together the subjective and objective views of the world: "...this second version of the problem ...is the obverse of skepticism because the given is objective reality or the idea of an objective reality- and what is problematic by contrast is subjective reality. Without receiving full acknowledgment this approach has been very influential in recent analytic philosophy. It accords well as a bias toward physical science as a paradigm of understanding."[4]

C. P. Snow's lecture *The two Cultures and the Scientific Revolution*, is of cardinal significance in the field of the humanities and science conflict. The lecture starts

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[1] Peter Galison, "History, Philosophy, and the Central Metaphor", *Science in Context* 2, no.1 (1988): 198.

[2] Thomas S. Kuhn, *Structure of Scientific Revolutions* (London: The University of Chicago Press, 1970), 18-19.

[3] Galison, 198.

[4] Thomas Nagel, *The View from Nowhere* (Oxford: Oxford University Press, 1986), 19.

with a remark: "I believe that the intellectual life of the whole of western society is increasingly being split into two polar groups ...intellectuals at the one pole – at the other scientists...between the two a gulf of mutual incomprehension ...hostility and dislike, but most of all lack of understanding."[5] And he ends up with the suggestion: "All the arrows point at the same way. Closing the gap between our cultures is a necessity, in the most abstract intellectual sense, as well as in the most practical."[6]

It was at the same period that antipositivist philosophy and history of science attacked the authority of modernist philosophy of science. The possibility of a protocol language (Carnap) would be questioned by "theory contamination" or "theory-ladenness". Common linguistic structure was doubted through Quine's indeterminacy of translation and Kuhn's "meaning incommensurability" both showing to the direction of "inability of one language and its referential structure to fully translate into another language system."[7]

Martha Nussbaum, echoing Snow's appreciation of humanities claims that they help in the better understanding of the world we live in. The *global educational crisis* is capable of becoming more dangerous for the future of democracy than the economic crisis. In *Not For Profit -Why Democracy Needs the Humanities* (2010), she writes:

> "If we do not insist on the crucial importance of the humanities and the arts, they will drop away, because they do not make money. They only do what is much more precious than that, make a world that is worth living in, people who are able to see other human beings as full people, with thoughts and feelings of their own that deserve respect and empathy, and nations that are able to overcome fear and suspicion in favor of sympathetic and reasoned debate."[8]

Both Snow and Nussbaum consider humanities as an additional but separate education that cultivates the students ethically and emotionally, opening their minds and making them better persons and citizens. They don't examine the possibility of collaboration of two cultures in creating an integrative discipline, i.e. making the two areas commensurable and cooperating. From the scientific revolution onward, humanities have been accepted only as a supplementary education to scientific studies, optional and useful for the educational objectives of the new paradigm. Kuhn says about the role of textbooks and especially about the history of science that they project:

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5 P. C. Snow, *The Two Cultures and the Scientific Revolution* (New York: Cambridge University Press, 1961), 4.

6 Ibid., 53.

7 Galison, 206.

8 Martha C. Nussbaum, *Not For Profit: Why Democracy Needs the Humanities* (Princeton and Oxford: Princeton University Press, 2010), 143.

"For reasons that are both obvious and highly functional, science textbooks (and too many of the older histories of science) refer only to that part of the work of past scientists that can easily be viewed as contributions to the statement and solution of the texts' paradigm problems. Partly by selection and partly by distortion, the scientists of earlier ages are implicitly represented as having worked upon the same set of fixed problems and in accordance with the same set of fixed canons that the most recent revolution in scientific theory and method has made seem scientific. No wonder that textbooks and the historical tradition they imply have to be rewritten after each scientific revolution. And no wonder that, as they are rewritten, science once again comes to seem largely cumulative."[9]

Vasso Kindi in "Should Science Teaching Involve the History of Science? An Assessment of Kuhn's View" specifies three ways of answering the question she poses in the title.[10] I will expand the scope of these answers, from science teaching-history of science relation, to science – humanities relation, considering these relations proportional. One option according to Kindi is the possibility of rejecting the distinction altogether and suggest that it would be reasonable to teach the only history of science worthy of the name (i.e., the historians' history) as part of a humanities curriculum for the general education of students[11], a view about humanities and science that could be attributed to Snow and Nussbaum. The other option emerges in the work of T.S. Kuhn. Kuhn upholds the distinction, but does not make normative suggestions. He highlights the importance of the bad history of textbooks because he perceives science as a practice and not as a set of propositions forming a theory. If he had taken science to be merely a set of true statements, it wouldn't make sense to include in it false propositions like the ones fabricated by textbook history... because he understands science as a practice, he recognizes the conditions that make it possible. One of these conditions is the retrospective reading of history... according to Kuhn, the new paradigm needs to make such moves, in order to even be considered a candidate for replacing the old paradigm and eventually get established.[12]

According to this interpretation, Kuhn makes a statement about the practice of modern science that reveals its attitude towards history. He is essentially describing the positivistic paradigm with the acceptance of incommensurability between the two cognitive fields. Another option is "the case of accepting the distinction between

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[9] Kuhn, 137-138.

[10] Vasso Kindi, "Should Science Teaching Involve the History of Science? An Assessment of Kuhn's View", *Science & Education* 14 (2005): 727.

[11] Ibid.

[12] Ibid., 727-728.

historians' history of science and textbook history of science and reject the teaching of textbook history on the grounds that it would promote the dissemination of facta ficta."[13] This is the case today, that internet replaced textbooks as the only source of knowledge, and manipulation of knowledge is impossible, contaminating in this way 'pure science' by the self knowledge of its historicity. To overpass the positivistic stance, science must adopt humanities' glance. All three options though, recognize the incommensurability of two cultures and their difference in kind. Is there a fourth option?

The unsolved problems and puzzles of quanta mechanics and the emergence of theories as Werner Heisenberg's uncertainty principle in physics, after the World War II, progressively shook the causalist certainty of positivism to the earth. In this context new theories appear, as Quine's methodological holism, Popper's abandonment of induction, and the rebound of history of science with Kuhn's *Structure of Scientific Revolutions*. This new view of science as a social activity with historic and practical constraints brings humanities and science closer as kinds of knowledge. But these new interpretations remain outside the 'tough core' of science and its every day practice in education and research institutes which remains positivist.

Snow in his essay *The Two Cultures: a Second Look,* claims that a third culture is emerging in social sciences that makes the contact between science and humanities easier. We consider Bioethics to be the typical paradigm of this third culture and a fourth option in the science- humanities relation. It can be a fourth option of answering the question *Should Science Teaching Involve the History of Science?* In Bioethics, ethics becomes a constitutive part of the discipline, and not an optional supplementary education. Because Bioethics demand *consent* for scientific research and application on humans, animals and nature, it is the first time that the scientific program has to consider ethical and social constraints, not just as the traditional disciplinary internal ethics, but as rules that define its activity. Bioethics however, could easily be accused of conservatism in the sense that it imposes ethical rules on science in the same way that the Inquisition imposed religious beliefs on Galileo's research. That's the reason why the two cultures cannot just coexist in their different frameworks side by side, but they must form a new framework that aims at *beneficence, non maleficence* and at *justice* while at the same time *respecting autonomy*. One way may be regarding science and humanities as kinds of social practice, while there is need for each culture to abstain from normative violence on each other as Richard Rorty would put it.[14] Recognizing the mixed normative and descriptive elements in both cultures, they must collaborate in a new framework, keeping their reasonable differences, deep interests, problem solving procedures, and possible metaphysical claims not under a 'veil of ignorance', but under a 'veil of normative modesty'.

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[13] Ibid., 727.

[14] Richard Rorty, *Philosophy as Cultural Politics. Philosophical Papers, Volume 4* (New York: Cambridge University Press, 2007).

New naturalism's and eliminative materialism's pressure is a "free ride" claim[15] for the hunt of scientific truth in a program without ethical constraints and without consent. That is exactly what happened in concentration camps during experiments on humans and was globally condemned, its impact giving rise to Bioethics through the Nuremberg code that followed the Nazi trials. Bioethics as a new transdisciplinary field, demands the bioethical education of young scientists. It is an integrative discipline based both on applied ethics and scientific knowledge, demanding the humanitarian education that will render the understanding and application of bioethical principles possible.

We will subsequently examine reasons-causes debate that is the ground of the humanities-science conflict.

II. Reasons-causes debate

Positivists considered all traditional metaphysical problems as "meaningless gibberish" and attributed meaning only to what is empirically verified or analytic. Human sciences that explain by reasoning have low predictive power compared to sciences of nature that can predict following causal chains. The incompatibility between reasons and causes rests on the grounds of incommensurability between humanities or sciences of the mind and the sciences of nature. The non-causalism of the golden age of the philosophy of history, in about 1960, was expressed by the non-reductivist slogan 'reasons are not causes'. This soon changed into a new orthodoxy, with the slogan 'reasons are causes', which followed Davidson's essay "Actions, Reasons and Causes", an ontological backlash as Giussepina D' Oro characterizes it in "The ontological Backlash".[16] At this point, we are going to follow further D' Oro's narrative of the history of reasons/ causes debate and the explanation of mainstream analytic philosophy's losing interest in the philosophy of history.

Mill in his *System of Logic: Radiocinative and Inductive* will make the distinction between exact and inexact sciences considering the difference a difference in degree and not in kind, ignoring the reasons-causes difference. One and a half century later, the Quinean distinction between philosophy and the natural sciences as a difference in degree and not in kind, points in the same direction.

In between, in the mid-twentieth century, at the heyday of the philosophy of history, while the main philosophical debate was about the action-event distinction and the methodological unity of sciences, the predominant view was that the distinction between the human and natural sciences is a distinction in kind, not in degree. According to the so called 'logical connection argument', Dray following

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[15] Jürgen Habermas, *The Future of Human Nature* (Cambridge: Polity Press, 2003), 21.

[16] Giussepina D'Oro, "The Ontological Backlash: Why did Mainstream Analytic Philosophy Lose Interest in the Philosophy of History?", *Philosophia* 36, no. 4 (2008): 403-415.

Collingwood and others claimed that since the relationship between the *explanans* and the *explanandum* in action explanation is logical or conceptual, "reasons cannot be causes."[17] The debate was still for the structure of explanation and the unity of the sciences. But soon the debate will move from the action-event distinction to the ontological question about the possibility of mental causation.

Tired of talk about talk, many philosophers in the latter half of the century turned to substantive questions. Moreover, this return of ontology in the latter half of the century was not a mere adjustment of emphasis within the framework of Kant's Copernican turn, in the manner of phenomenology's slogan 'back to the things themselves'. The return of ontology in the latter half of the century was a return of real metaphysics, a significant departure from Kant's transcendental turn as well as from the linguistic turn.[18]

The completeness of physics raises an ontological claim about causation. As Crane puts it "if the completeness of physics is true, then there is one special kind of cause...completeness of physics is a claim about causation."[19] The new rise of ontology was the logical outcome of the physicalist commitment to explanatory closure. "The received view of the latter half of the twentieth century is that the reasons-causes debate has an ontological dimension which was simply overlooked by a generation of philosophers in the grips of an 'ordinary language' fashion."[20]

Davidson changed the way philosophers think about the mind-body connection, arguing against the "logical connection argument" in "Actions Reasons and Causes". He will claim that there is a conceptual connection as much as there is real connection between the reasons and the actions they explain. But his "anomalous monism shows an ontological bias only in that it allows the possibility that not all events are mental, while insisting that all events are physical."[21] According to this position, the natural has an absolute priority over the mental, the former considered given, the latter defective.

The debate about the cognitive prevalence between reasons and causes after the ontological backlash of philosophy seems to promote the causalist side. Equation of reasons with causes by Davidson, that seems to put an end in the philosophical debate that starts with Collingwood and the philosophy of history, about the nature of causal and logical explanations and the possibility of reductionism, does not restore humanities' claims, because it is overwhelmed by a physicalistic prejudice. Although reasons become causes, that does not mean the equation of physical sciences domain with that of sciences of the mind, but the recedence of the latter, to the small and

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[17] Ibid., 407.

[18] Ibid., 404.

[19] T. Crane, *Elements of Mind* (Oxford: Oxford University Press, 2001), 60.

[20] D' Oro, 407.

[21] Donald Davidson, *Essays on Actions and Events* (Oxford: Clarendon Press, 1980), 214.

relatively new physicalistic field. Human action becomes bodily movements caused by beliefs and desires, creating events outside the body.

The physicalistic consequences of this 'anomalous reductionism' have received enough criticism for their explanatory competence. Anscombe whose conception of world is not physicalist, considers the agent-world connection richer than causal, and considering the physicalistic picture poor, she writes:

> "If we now think in terms of, say, some sort of elementary particles and the operation of the fundamental forces recognized by physics, the very descriptions which occur in physiology may seem to be descriptions of shadows. I mean that the movement of a shadow has not any reality that has been left out once you have described the successive occlusion of light from a continuum of areas of a surface. Now what are we to think of the causal histories of human dealings of such a kind as we have mentioned? Are they so to speak shadows on shadows?"[22]

Thomas Nagel claims that "physicalism is based ultimately on a form of idealism: an idealism of restricted objectivity. Objectivity of whatever kind is not the test of reality. It is just one way of understanding reality."[23]

McDowell sketches the naturalist view as "made available only by a hard won achievement of human thought at a specific time, the time of the rise of modern science. Modern science understands its subject matter, in a way that threatens at least, to leave it disenchanted, as Weber put the point in an image that has become a commonplace."[24]

At the heart of this disenchantment, eliminative materialism, as the 'hard core' of biomedical sciences, states in the words of Jaegwon Kim that "the rapidly developing and expanding 'cognitive science' will likely supersede the vernacular so that at some point in the future the rational thing to conclude is that there are no such things as beliefs and desires and there never were."[25] Churchland also in terms of reductivist materialism claims that "the propositional attitudes of folk psychology do not constitute an unbreachable barrier to the advancing tide of neuroscience."[26]

Experimental neurophysiology and modern genetic science, in the context of physicalism and eliminative materialism, according to Habermas, "do not touch on this or that difference in the great variety of cultural forms of life, but on those

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[22] G. E. M. Anscombe, *Human Life, Action and Ethics* (Exeter: Imprint Academic, 2006), 95-96.

[23] Nagel, *The View from Nowhere*, 26.

[24] John McDowell, *Mind and World* (Cambridge: Harvard University Press, 2000), 70.

[25] Jaegwon Kim, "Mechanism and Explanation", In *The Philosophy of Action,* edited by Alfred Mele (New York: Oxford University Press, 2003), 280.

[26] Paul Chutchland, "Eliminative Materialism", in *Philosophy of Mind,* edited by Timothy O'Connor and David Robb (London and New York: Routledge, 2003), 411.

intuitive self descriptions that guide our own identification as human beings" and so "advances of genetic engineering affect the very concept we have of ourselves, as cultural members of the species of "humanity"- to which there seems to be no alternative" they consist a wound in the "ethical self-understanding of the species, which is shared by all moral persons." [27]

The reason why causes conflict interests in Bioethics is because it leaves behind a monist peace agreement (reasons are causes), which nevertheless bestows the greatest part of reasons territory on physical sciences. Naturalism and reductivism lead the galloping technology's research. The deep strata of beliefs remain either reductivist or causalist in the field of natural sciences or non reductivist and anti-causalist in the field of humanities. Maybe that is what stands behind the relatively narrow impact of bioethical principles worldwide in every day practice. Biomedical scientists with deep beliefs in causal laws governing their discipline face ethics like lifesavers for legal problems they may face while practicing, or at least like weird intruders in their territory whom they are obliged to obey, because of new social practices. The outcome of this cultural conflict giving priority to sciences over humanities, cannot serve to frame Bioethics as a third culture where the two cultures are not supposed just to coexist in the same environment, but they are obliged to collaborate affecting each other, almost creating a new discipline.

New ideas of transdisciplinary and public consensus that affect essentially the scientific research program are in need to form the rules of this new discipline.

III. Bioethics as a transdisciplinarity endeavor

Teaching humanities in biomedical disciplines is not an optional but a constitutive parameter for the competence that scientists must acquire to practice in these fields. The need for humanistic education of scientists obtains agreement by all the participants in bioethical endeavor.

It is easy however to adopt some kind of teaching of humanities in biomedical disciplines but how easy is it to create a new coherent transdisciplinary framework? It's easy to understand transdisciplinarity between sciences of nature, because despite the differences they may have, they all fall under the causal laws, so they all have the same external framework of causality. When transdisciplinarity has to operate between natural sciences and the so- called sciences of the mind, as in Bioethics where ethical principles have to cooperate with scientific processes of the highest level and determine the final research program under ethical and societal constraints, new transdisciplinarity rules are needed that fall under causal and ethical constraints and obtain public consensus.

The transdisciplinarity endeavor is common in new disciplines that require reevaluation of societal needs and societal and ethical approval for their practice.

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[27] Habermas, *The Future of Human Nature,* 39-40.

Biomedical research and practice is the leading paradigm, and ecological research on energy, sustainability of ecosystems, water supplies, and other new research areas follow.[28]

> "The knowledge production process in these areas presupposes integration of preexisting scientific disciplines and worldviews. We can distinguish between reductionist and contextual views of integration. According to the reductionist view, knowledge should ultimately be put in a formal framework and thus be universally recognizable and to a large extent exchangeable across contexts. According to the contextual view, knowledge is composed of different configurations and validated practices that emerge as a result of agents' learning within their natural and/or societal contexts....In this worldview both social and natural science knowledge are interdependent and inseparable aspects of the same knowledge."[29]

In natural sciences the predominant view is reductionist and physicalist but in Bioethics there is need for a contextual view because there is a predominant practical request that has to take into account the societal interests that have precedence over theorizing. Finally, in research with societal impact that affects directly ethical interests of citizens, "the gap between science as the active knowledge producer and society as the passive recipient in the knowledge production process will need to be replaced by a process of co-design and co-production of knowledge."[30]

Transdisciplinarity has two main theoretical positions. One expressed by Erich Jantsch[31] and another more recent and often mentioned in transdisciplinarity discourse by Mittelstrass.[32]

Jantsch claimed that "the classical single-track and sequential problem solving approach itself becomes meaningless today" and he proposed a top-down transdisciplinarity organization that would lead transdisciplinarity at the ultimate level of coordination.[33] Coordination follows horizontal principles within each level and vertical principles between levels and sub-levels.[34] This is how the top- down ultimate level of coordination will be reached. This model seems more compatible

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[28] Wolfram Mauser, et al, "Transdisciplinary Global Change Research: The Co-creation of Knowledge for Sustainability", *Current Opinion in Environmental Sustainability* 5 (2013): 421.

[29] Mauser, 423.

[30] Ibid.

[31] Erich Jantsch, "Towards Interdisciplinarity and Transdisciplinarity in Education and Innovation", *Interdisciplinarity – Problems of Teaching and Research in Universities*, ed. Leo Apostel, 97-121 (Paris: OECD, 1972).

[32] Jürgen Mittelstrass, "On Transdisciplinarity", *Trames* 15, no. 4 (2011): 329–338.

[33] Jantsch, 117.

[34] Mauser, 424.

with contextual views of integration.

Mittelstrass on the other hand claims that

> "... interdisciplinarity, understood rightly, is not merely an alternation between the disciplines, nor is it hovering over them, like Hegel's absolute spirit. Rather, it undoes disciplinary rigidities whenever these obstruct the formation of problems and corresponding research-based actions; in reality, then, it is transdisciplinarity...transdisciplinarity is intended to imply that cooperation will lead to an enduring and systematic scientific order that will change the outlook of subject matters and disciplines."[35]

This seems more a bottom-up transdisciplinarity organization more compatible with the reductionist views of integration. He insists though that transdisciplinarity does not lead to new disciplines, it just transverses the boundaries of historic subjects and disciplines which have lost their problem-solving capacities because of an excessive specialization, in a world that "wants to use rather than admire science."[36] It seems that this reductionist and bottom-up model concerns mostly the intra-natural sciences problems and responds to the call for *unity of nature* and he calls it "theoretical transdisciplinarity that originates from more strictly scientific problems." But what can be done when a scientific work needs to solve non-scientific problems that need a more contextual approach? Mittelstrass answers to this question by discriminating between theoretical and practical transdisciplinarity "that makes reference to problems foreign to science." Bioethics seems to fall under the *practical transdisciplinarity* and so according to Mittelstrass the disciplines that collaborate to solve bioethical problems, "contribute with their specialized knowledge to the solution of these problems, and a wise and efficient coordination, but not an extension or transformation of these disciplines, is required."[37] Practical transdisciplinarity serves argumentative unity this way.

In the context of bioethical transdisciplinarity, controversies are increasingly framed as moral rather than scientific. These disputes are often highly political and frequently center "not only on how much science should be practiced but on whether some types of scientific inquiry ought to be pursued at all."[38] Boundary organizations as public Bioethics bodies are formed internationally, as transdisciplinary advisory committees whose credibility is based on ethicists, lawyers, scientists, policy makers, sociologists and other related experts, who act in this transdisciplinary frame across

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[35] Mittelstrass, 331.

[36] Ibid., 332.

[37] Ibid., 336.

[38] Susan E. Kelly, "Public Bioethics and Publics: Consensus, Boundaries, and Participation in Biomedical Science Policy", *Science, Technology, & Human Values* 28, no. 3 (2003): 341.

roles as "hybrid" experts.[39] Public Bioethics bodies seek societal consensus and according to an OTA report[40], their function is described as "to articulate common values and foster consensus about biomedical advances in the face of cultural and religious heterogeneity." So what public consensus adds in transdisciplinarity Bioethics apart from the integration of science and ethics, is taking into account the diverging ethical beliefs of different cultures in a multicultural society. It is an *overlapping consensus* procedure, which according to Rawls theory, regulates competing views of the good among free and equal citizens in a democratic society ruled by the political conception of justice.

We will next examine moral philosophy's and biomedical science's integration in a transdisciplinary field, as a new linguistic framework, while investigating Carnap's internal-external questions and Collingwood's absolute-relative presuppositions distinction.

IV. External questions and absolute presuppositions

What logical positivism (early Carnap included) and antipositivism have in common is the demand of a universal criterion of scientific advancement and a common belief in the unity of scientific work. They both 'stand' on a privileged vantage point or "master narrative". "In the case of the positivists it is from the "observational foundation" building up in the case of the antipositivists it is from the theoretical 'paradigm', 'conceptual scheme', or 'hard core' looking down.[41] Mature Carnap's external internal distinction and Collingood's absolute and relative presuppositions seem to abandon the illusion of any vantage point. They can both be interpreted as overpassing the reason-causes debate and the possibility of reductionism as long as these matters are operational as internal questions to, or relative presuppositions of, a linguistic context.

a. Carnap

Mature Carnap seems to quit the request of an autonomous system of logical syntax and recognizes that syntactic analysis of language must be supplemented by semiotic analysis which after 1936 seems to be his main philosophical interest. In "Empiricism, Semantics, and Ontology" (1950), he distinguishes between questions within a linguistic framework which are legitimate, and questions about the framework as framework that are external and in "need of closer examination".

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[39] Ibid., 344.

[40] Office of Technology Assessment, U.S. Congress, *Biomedical Ethics in U.S. Public Policy –Background Paper,* OTA-BP-BBS-1O5 (Washington, DC: U.S. Government Printing Office, 1993), 7.

[41] Galison, 307.

Empirisists, he writes, have a problem with abstract entities as "they feel much more in sympathy with nominalists than with realists (in the medieval sense) ...a mathematician is said to speak not about numbers, functions and infinite classes but merely about meaningless symbols" while physicists are also suspicious of abstract entities.[42] In this article he aims at subverting this long standing empiricist's prejudice on abstract entities.

> "Recently the problem of abstract entities has arisen again in connection with semantics, the theory of meaning and truth. Some semanticists say that certain expressions designate certain entities... Others object strongly to this procedure as violating the basic principles of empiricism and leading back to a metaphysical ontology of the Platonic kind. It is the purpose of this article to clarify this controversial issue. The nature and implications of the acceptance of a language referring to abstract entities will first be discussed in general; it will be shown that using such a language does not imply embracing a Platonic ontology but is perfectly compatible with empiricism and strictly scientific thinking."[43]

He recognizes the possibility of speaking about a new kind of entities, but to do so "he has to introduce a system of new ways of speaking, subject to new rules". He will call this procedure "construction of a linguistic framework for the new entities in question". Making the construction more explicit he introduces the internal- external distinction:

> "And now we must distinguish two kinds of questions of existence: first, questions of the existence of certain entities of the new kind within the framework; we call them internal questions; and second, questions concerning the existence or reality of the system of entities as a whole, called external questions. Internal questions and possible answers to them are formulated with the help of the new forms of expressions. The answers may be found either by purely logical methods or by empirical methods, depending upon whether the framework is a logical or a factual one. An external question is of a problematic character which is in need of closer examination."[44]

The metaphysician is the one asking external questions that are illegitimate. But as we already said it seems not to exist a privileged point for the metaphysician

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[42] Rudolf Carnap, "Empiricism, Semantics, and Ontology", *Revue Internationale de Philosophie* 4 (1950): 21.

[43] Ibid., 1.

[44] Ibid, 23.

outside the linguistic framework he works in. So his questions are unanswerable or pseudo-questions. For example calculating questions about numbers, i.e. how much is so and so, are internal to mathematicians' framework and have legitimate answers, while questions about the existence of numbers may be either internal, and so they have legitimate, trivial answers (like: of course numbers exist), or be external and unanswerable. And they are unanswerable because they concern the reality or a platonic ontology of numbers. The metaphysician asks in reality whether numbers exist outside and independently of the framework or if the numbers' framework really exists, committed so to a Platonism.

D'Oro says that internal-external distinction has the following implications:

"... first, that our ontological commitments are dependent upon the adoption of a linguistic framework...second... we ought to be ontological pluralists [as a] result of framework pluralism combined with the view that there is no framework-independent ontological viewpoint... third, and crucially, the internal/external distinction alters the status of the principle of verification."[45]

According to Carnap's semantic investigation on the possibility of new linguistic frameworks, which has a pragmatist origin (like integrative Bioethics) whichever language we adopt must have the features of "efficiency, fruitfulness, and simplicity of the use of [this] Language... and the questions concerning these qualities are indeed of a theoretical nature. But these questions cannot be identified with the question of realism."[46] "The system of rules for the linguistic expressions of the propositional framework is sufficient for the introduction of the framework" and any further explanations are theoretically unnecessary because they follow from the rules.[47] The pragmatist origin of this endeavor becomes explicit when he asks the question of whether or not to accept the new linguistic forms and answers: "The acceptance cannot be judged as being either true or false because it is not an assertion. It can only be judged as being more or less expedient, fruitful, conducive to the aim for which the language is intended."[48] So we can form new linguistic frameworks (or new disciplines) as new entities. And "the introduction of the new ways of speaking does not need any theoretical justification, because it does not imply any assertion of reality."[49]

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[45] Giuseppina D'Oro, "Unlikely Bedfellows? Collingwood, Carnap and the Internal/External Distinction", *British Journal for the History of Philosophy* 23, no. 4 (2015): 802-817.

[46] Carnap, 25.

[47] Ibid.

[48] Ibid., 33.

[49] Ibid.

Although in this text Carnap uses as examples of linguistic frameworks physics and mathematics, we can legitimately extend the internal-external distinction in all the areas of philosophy. Every new or old area of philosophy and science uses abstract linguistic forms for the purposes of analysis, interpretation, clarification or construction of languages of communication. No physicalist quest for 'completeness of physics' or a commitment to 'explanatory closure' can limit the scope of frameworks. Beginning with Plato and Aristotle to C. S. Peirce and Frege the great majority of philosophers accepted abstract entities.[50] And every modern or classical philosopher and scientist can ask legitimate or illegitimate questions. Not even Carnap's past companions, positivists of the Vienna Circle, avoid this rule. "The Circle rejected both the thesis of the reality of the external world and the thesis of its irreality as pseudo-statements.. (It is obvious that the apparent negation of a pseudo-statement must also be a pseudo-statement)."[51] Carnap nevertheless falters to accept the term 'metaphysics' for his study of external or illegitimate questions as Collingwood does for his study of absolute presuppositions. Collingwood also charges natural scientists (although supposedly against metaphysics) for metaphysical beliefs (according to his definition of metaphysics as a study of absolute presuppositions) : "when natural scientists express hatred of 'metaphysics' they are usually expressing this dislike of having their absolute presuppositions [metaphysic beliefs] touched."[52]

The acceptance of a new kind of entities (like Bioethics) is accompanied by the introduction of a framework of new linguistic forms used according to a new set of rules which will be tested by

"... their efficiency as instruments, the ratio of the results achieved to the amount and complexity of the efforts required. To decree *dogmatic prohibitions of certain linguistic forms* instead of testing them by their success or failure in practical use, is worse than futile; it is positively harmful because it may obstruct scientific progress. Let us grant to those who work in any special field of investigation the freedom to use any form of expression which seems useful to them...Let us be cautious in making assertions and critical in examining them, but tolerant in permitting linguistic forms."[53]

b. Collingwood

Although Collingwood and Carnap belong to different philosophical traditions

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[50] Ibid., 41.

[51] Ibid., 34.

[52] R. G. Collingwood, *An Essay on Metaphysics* (Oxford: Oxford University Press, 1948), 44.

[53] Carnap, 41.

they share a contextual or linguistic framework view. So Carnap's and Collingwood's treatment of metaphysics share common characteristics, although the former's originally positivist stance leads to a suspicion of metaphysics as external questions, while the latter is known to defend the possibility of metaphysics against Ayer's attack. They use a (surprisingly) relative distinction, the former of internal-external distinction the latter of absolute and relative presuppositions.

Collingwood in *An Essay on Metaphysics* defines the word 'science', in its "original sense in the international language of European civilization" as "a body of systematic or orderly thinking about a determinate subject-matter" calling the equation of the term 'science' with 'natural science' as a 'slang' use of the world.[54] So it is obvious from the start that his metaphysics concern any science, which according to his definition can either be natural science or any branch of the so called humanities. He will then clarify Aristotle's First Science, *πρώτη φιλοσοφία,* or Wisdom, *Σοφία*, or Theology, *Θεολογική*, by which he makes it possible "for anyone who understands his vocabulary to grasp without further explanation, how he conceived that science's nature."[55] By extracting from Aristotle's metaphysical program, "two propositions about the nature of metaphysics: that it is the science of pure being, and that it studies presuppositions" he finally claims that he has shown that there cannot be a science, or a quasi-science or even pseudo-science of pure being, in this way clearing his metaphysics from any ontological claim and rendering them at the same time a theory about presuppositions.[56] "The priority affirmed in the word presupposition is logical priority."[57] He thinks that logicians paid too much attention to connections between thoughts and neglected a possible theory of presuppositions[58], which he calls metaphysics, the possibility of which Carnap will deny as constituted of pseudo-questions.

Collingwood adopts the terms *propositions* and *presuppositions*. To illuminate the relation between them and their status in the framework they coexist he will expound the following propositions[59]:

- Every *statement* that anybody ever makes is made in answer to a question.
- Let that which is stated (i.e. that which can be true or false) be called a *proposition*.
- Every question involves a *presupposition*.
- A presupposition is either *relative* or *absolute*.

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[54] Collingwood, 4.

[55] Ibid., 6.

[56] Ibid., 20.

[57] Ibid., 4.

[58] Ibid., 23.

[59] Ibid., 23-33.

- By a relative presupposition I mean one which stands relatively to one *question* as its presupposition and relatively to another question as its *answer*.
- An absolute presupposition is one which stands, relatively to *all questions* to which it is related, as a presupposition, *never as an answer*.
- Absolute presuppositions are not propositions.

Propositions answer to questions while presuppositions define which questions can be asked. So propositions can have true or false answers, while absolute presuppositions have not because they have the role to define the questions to be asked and so they are not questionable, they are part of the operating system of questioning. The logical efficacy of an absolute presupposition is independent of its being true. The distinction between truth and falsehood does not apply to absolute presuppositions at all.

> "Putting the same point differently: absolute presuppositions are never propounded... I mean that to be propounded is not their business; their business is to be presupposed. The scientist's business is not to propound them but only to presuppose them. The *metaphysician's business*, as we shall see, is not to propound them but to propound the proposition that this or that one of them is presupposed."[60]

Absolute presuppositions according to Collingwood serve as an outer limit of the possible questions. Causality in medicine is such an absolute presupposition. Carnap falters to accept the term 'metaphysics' for the external questions because he bestows to this term ontological claims or Platonism, while Collingwood adopts the term metaphysics for the study of absolute presuppositions[61] of linguistic frameworks. But neither the latter is allowing ontological claims. His study is more like an elucidation[62] about the use of language inside the borders of 'language games' or 'forms of lives' and the questions that can be asked about them.

But if we avoid any kind of Platonism or realism what can save a new linguistic framework (Bioethics in our case) from relativism? For Carnap it seems to be a belief that the analytic synthetic distinction penetrates the different frameworks as these discriminations are supposed to penetrate all rational activity. For Collingwood D'Oro says that his absolute presuppositions "are not universally valid: different forms of inquiry have different absolute presuppositions. Their applicability however is limited not to time and place but to the forms of enquiry which they make

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[60] Ibid., 33.

[61] "The analysis which detects absolute presuppositions I call *metaphysical analysis*". Collingwood, 40.

[62] "To ask questions with skill, or scientifically... there are two stages. The first is disentangling, the second is arranging." Collingwood, 38.

possible."[63] His absolute presuppositions seem for her to be not universally *a priori*, as a Kantian apriority would demand, but rather in the linguistic framework they define. Collingwood is taken so to be a contextualist that takes absolute presuppositions to be relative to forms or modes of inquiries rather than to time and place. But Collingwood himself answers to a possible accusation of relativism, which could be grounded on considering the changes of his absolute presuppositions in each context merely 'changes of fashion'. His answer reminds what Kuhn will later describe as 'paradigm shift':

> "People are not ordinarily aware of their absolute presuppositions and are not, therefore, thus aware of changes in them; such a change, therefore, cannot be a matter of choice. Nor is there anything superficial or frivolous about it. It is the most radical change a man can undergo, and entails the abandonment of all his most firmly established habits and standards for thought and action... absolute presuppositions of any given society, at any given phase of its history, form a structure which is subject to 'strains'.. If the strains are too great, the structure collapses and is replaced by another."[64]

From his answer becomes obvious that changes of absolute presuppositions may be subjected to societal or historical constraints, but these are not made by chance, they are subjected to rational constraints also as Carnap's analytic synthetic distinction is.

What are the possible implications of Carnap's internal-external distinction and Collingwood's absolute and relative presuppositions for Bioethics' transdisciplinarity we are investigating? The implications of dependency on linguistic framework pluralism combined with the view that there is no framework-independent viewpoint on one hand, and the absolute presuppositions that are not limited to time and place but to the forms of enquiry which they make possible on the other, can help us sketch a possible bioethical framework where moral philosophy and biomedical science can exist together, having the same presuppositions and the same internal questions defined by the same external frame. This framework is defined by the obligation to take into account a conception of good while calculating what is true. There are anyway inherent normative constraints on science, as also historical or societal ones that affect the scientific program.

Richard Rorty sharing pragmatist quizzicality with Carnap and Collingwood on one hand and contextuality and a sense of historical and societal constraints on frameworks with Collingwood and Kuhn on the other, well known for his ambition to span analytic and continental philosophy, considering them fellow travelers in a *civitas*

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63 D'Oro, "Unlikely Bedfellows?", 7.

64 Collingwood, 48.

pelegrina[65], adopts the term *cultural politics* or the *paradigms* or *linguistic frameworks* to describe philosophy. Rorty feels sympathetic to William James' pragmatism. According to Rorty "James often comes close to saying that all questions, including questions about what exists, boil down to questions about what will help create a better world."[66] Rorty describing suspicion of pragmatism sounds like describing scientific suspicion of Bioethics:

> "People who are suspicious of pragmatism argue that preventing scientists from doing experiments to find out whether intelligence is genetically transmissible, or to find out whether a neutron bomb is feasible, on the other hand, is to sin against truth… we should separate practical questions…. from the straightforwardly empirical questions just as we divide the question of whether we *can* build a neutron bomb from the question of whether we *should*."[67]

In his *arena of cultural politics,* several such conflicts arise and "there are no grand philosophical principles that can help us solve such problems". Rorty seems to side with James in that "truth and reality exist for the sake of social practices, rather than vice versa"[68], thus setting practical philosophy and natural science in a contextual frame.

Our investigation does not of course respond to the problems of Bioethics' foundation as a new linguistic framework or the justification of its principles. What we did through the examination of Carnap's internal-external and Collingwood's relative-absolute presuppositions distinction is just sketch a way to understand this innovative endeavor as Snow's third culture that demands both natural science and humanities to collaborate in the formation of a new discipline.

Acknowledgement

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[65] Richard Rorty, "Introduction", in *Empiricism and the Philosophy of Mind,* ed. Wilfrid Sellars (Cambridge and London: Harvard University Press, 1997), 12.

[66] Richard Rorty, *Philosophy as Cultural Politics. Philosophical Papers, Volume 4* (New York: Cambridge University Press, 2007), 5.

[67] Ibid.

[68] Ibid., 7.

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Bioethics and Hereditary Genetic Modifications

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Abstract

Significant breakthroughs in genetic research promoted by the human genome project, advances in molecular biology and new reproductive technologies have improved the understanding and the possibility of genetic interventions as a potential medication for diseases caused by differentiated disorders, especially those that originated in irregularities in individual genes. The progress achieved in contemporary studies has created the likelihood that the man has the technical capacity to modify the genes that will be transmitted to the next generations as well. These are the so-called hereditary genetic modifications, i.e. any biomedical interventions which could be expected to transform the genome which a person could transfer to their offspring. The author analyses in this paper why even the hints of transformations of genes that will be passed on to future generations cause deep bioethical, theological, legal and political debates and controversies. He also believes that in the era of rapid strengthening of the social and technical and technological effects of science, it is very important that scientists, in their perceptions and insights, which particularly in the field of humanities, do not have the character of value beliefs, do not go below the achieved civilization standards of ethical and moral culture and to reflect on different themes with due care and awareness of the dilemmas that they can encounter in their professional work. An adequate interdisciplinary, multidisciplinary and pluriperspective approach, as well as the awareness of the essential compatibility of scientific freedom and responsibility, should ultimately result in a different and more sophisticated attitude of the scientists themselves to the possibilities of their own discipline and the significance of its effects.

Key-words: *genetics; hereditary genetic modifications; controversies; science; freedom; responsibility; bioethics; pluriperspectiveness*

Ambivalence is noticeable in almost every scientific act and every scientific result. It could be said when genetics or some other contemporary discipline is concerned that, to a significant extent, mankind as a community of a single kind of beings depends on them, or furthermore, that the fate of the planet itself, or its survival actually depend on its results. The achievements of these disciplines

facilitates development in both directions almost to the same extent: namely, the results of scientific achievements, although they primarily tend towards progress and achievement of the highest human values, at the same time, they may generate adverse, even catastrophic consequences. Herbert Marcuse, at one stage, even thought that the scientific and technical process almost completely got out of the human control, and that the dilemma whether the planet would survive or fail will be decided by pure coincidence.[1] Closer to the truth, according to the author, is the fact that despite all ambivalence, scientific achievements are still under the control of men, and that in different modes this control can be more efficient and more differentiated in the future. That is why the issue of responsibility[2] of the scientist is of crucial importance, it is a fundamental issue of their actions, and not an auspicious issue that can but needn't be linked to what is happening in the field of science. In other words, this issue must be the starting point of any scientific act, with full awareness of possible abuses and negative consequences that could follow from almost any result.[3] The lack of full awareness of responsibility can be illustrated by disproportionately high investment in scientific programs and projects that have practical application, and significantly less funds in the so-called pure science, i.e. fundamental research, or in social and humanistic sciences which do not generate immediate benefits but allow the development of science as such.

It could be also said that the original idea of science in its form of wonder[4] and curiosity is more beneficial for man than all practical discoveries that undoubtedly radically change the world and establish often an unexpected reality for man himself. The trouble is that the newly established reality can never satisfy the human nature, that the scientific and technical universe has expelled precisely that which this nature is searching for and what it feels like its original domestication. On the other hand, all technical and technological achievements with practical application are the result of purely theoretical, purely scientific research, and not of some sort of rational plan

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[1] Consult H. Marcuse, *One-Dimensional Man* (London: Taylor Francis Ltd, 2002).

[2] For more details on the concept of responsibility see A. Čović, "Biotička zajednica kao temelj odgovornosti za ne-ljudska živa bića", in *Od nove medicinska etike do integrativne bioetike*, eds. A. Čović, N. Gosić, L. Tomašević (Zagreb: PERGAMENA / Hrvatsko bioetičko društvo, 2009), 33-46.

[3] Specific human questions play a major role in any scientific process, research, and experiment. Their presence certainly influences the results of contemporary sciences, including genetics. Starting from the first researches by Gregor Mendel in 1865, through the explanation of DNA molecule structure by James Watson and Francis Crick in 1953, cloning of sheep Dolly in 1997, until the project of sequencing of the human genome that was launched at the end of 1990 and the drawing up of the human genome map in 2003.

[4] About wonder as something that initiates philosophizing; Plato writes in *Theaetetus* 155d and *Philebus* 14c-e. Aristotle writes on the same topic, for example, at *On the Heavens* 294a11-28, as well as in other places (*Parts of Animals* 645a5-17. Consult H. Bonitz, *Index aristotelicus* (Vol. 5), (Berlin: Walter de Gruyter & Co., 1975), 323a45-59). On this topic, see also concluding considerations of Immanuel Kant's *Critique of Practical Reason*, http://www.kantwesley.com/ Kant/CritiqueOfPracticalReason.pdf, 199.

of the scientists themselves. The basis is the effort to discover the marvelous order in nature, and practical pretensions would only disable these great scientific ambitions.

The modern civil era is based on the logocentric and homocentric image of the world, whose meaning, on Aristotle's trail, is derived from high trust in human understanding and reason abilities. The Stagirites, moreover, emphasizes that *logos* abilities can only be attributed to people. The anthropocentricity[5] of this *Weltanschauung* is an important reason why our dominant technical civilization did not develop in harmony with nature, but much more often in opposition to it. No human act in the past was able to substantially affect the spontaneity of the existence of our planet. As much as man was changing the natural environment in which he lived, this did not leave a greater trace on Earth itself. The rapid development of technique in the last century put man in a completely new moral situation. The new situation is reflected in the fact that modern man must assume responsibility for the effects that are not the result of the actions of any individual, but represent the collective act, as Edmund Husserl would say, of an "anonymous subject". The effects of modern technique suggest a completely new situation for traditional social and humanistic sciences, since the postulate of an anthropocentric image of the world is essentially derogated in the sense that people as species are unquestionable in their existence on the Earth. Ensuring the survival of the human species in the foreseeable future is a task to whose achievement new knowledge in some of them should contribute, especially in ethics[6] or bioethics.[7] In order for this fact to be confirmed, they need to re-examine the pow-

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[5] Aristotle's paragraph from the *Politics* (1256b15-22) is emphasized as a paradigm of the leading western tradition and its unquestionable anthropocentrism. The dignity of an individual is viewed from the perspective of the reasonability of one's nature, and such nature is attributed only to man. Only man is liberated from the empire of the goals, while the so-called non-human living entities related to connections and relations that exist in nature. Only man is aware of himself and is able to distance himself from himself for the benefit of higher goals, to relativize his own interests, up to self-surrendering. Consult J. Derrida and D. Wills, "The Animal That Therefore I Am (More to Follow)", *Critical Inquiry* 28, no. 2 (2002): 369-418. It gives him, as a moral being, the absolute status that establishes his indescribable dignity, which gives him the right not to be "enslaved" by anybody and being a moral being, no to be deprived of his own goals. Human dignity is often associated with Kant's second formulation of the categorical imperative (Trans Allen W. Wood): "Act so that you use humanity, as much in your own person as in the person of every other, always at the same time as end and never merely as means." I. Kant, *Groundwork for the Metaphysics of Morals* (New Haven and London: Yale University Press, 2002), 46-47.

[6] On ethics as thinking on practical thinking, i.e. as a philosophical discipline on morality see the author's paper: Ž. Kaluđerović, "Pretpostavke nastanka morala", *Bošnjačka pismohrana* (Zbornik radova Simpozija "Gdje je nestao - moral") Svezak 15, broj 42-43 (2016): 135-147, https://bnz.hr/proizvod/bosnjacka-pismohrana-2016-xx/.

[7] Fritz Jahr coined the original term Bioethics and formulated a Bioethics Imperative: "Respect every living being on principle as an end in itself and treat it, if possible, as such!" F. Jahr, "Reviewing the Ethical Relations of Humans Towards Animals and Plants", in *Fritz Jahr and the Foundations of Global Bioethics. The Future of Integrative Bioethics*, eds. A. Muzur, H.-M. Sass (Berlin, Münster, Wien, Zürich, London: Lit Verlag, 2012), 4. In the second edition of the *Encyclopedia of Bioethics*, Warren T. Reich defined bioethics as: "The systematic study of

er of technique, whose deeds thus acquire a philosophical sign, given the importance they have in the lives of the human species.

I.

Significant breakthroughs in genetic[8] research promoted by the mentioned human genome project, advances in molecular biology, new reproductive technologies, have improved the understanding and the possibility of genetic interventions as a potential medication for diseases caused by differentiated disorders[9], especially those caused by abnormalities in individual genes. Limitations of current medical therapies in the treatment of diseases with genetic components lead to the efforts to develop techniques for treating diseases at the molecular level by modifying the cell itself. So far, most research and clinical gene therapy[10] tools have been invested in devel-

the moral dimensions – including moral visions, decisions, conduct and policies – of the life sciences and health care, employing a variety of ethical methodologies in an interdisciplinary setting". W. T. Reich, "Introduction", in *Encyclopedia of Bioethics*, ed. W. T. Reich (New York: Simon & Schuster Macmillan, 1995), XXI.

[8] Genetics, generally speaking, is defined as "Scientific area of biology on the *heredity and variations in living organisms*". N. Đelić, Z. Stanimirović, *Principi genetike* (Beograd: Elit Medica, 2004), 1.

[9] According to some estimates, currently several thousand different genetic diseases are known (estimates range from 5-7000). For a very small percentage of them there is an adequate testing.

[10] In a broader sense, gene therapy implies any exogenous effect on the activity of certain genes, for example the effect of thyroid hormones used in the treatment of hypothyroidism or steroidal hormones in the treatment of asthma. In the narrow sense, gene therapy implies the treatment of the disease by introducing genetic material into the target tissue of the patient. This definition includes numerous genetic manipulations such as the insertion of a cloned gene (one of the definitions of cloning and research of stem cells says: "Cloning of an organism commonly involves a technique called somatic cell nuclear transfer, where the nucleus of an egg cell (containing its genetic material) is removed and replaced with the nucleus of a somatic cell taken from the body of an adult. If the reconstructed egg cell is then stimulated successfully to divide, it may develop to the pre-implantation blastocyst stage. In reproductive cloning, the cloned blastocyst is then implanted in the uterus of a female and allowed to continue its development until birth. However, in cloning for research or therapeutic purposes, instead of being implanted in the uterus the cloned blastocyst is converted into a tissue culture to make a stem cell line for research or clinical applications". InterAcademy Partnership, "Statement Calling for a Ban on Human Reproductive Cloning", http://www.interacademies.org/13930/IAP-Statement-Calling-for-a-Ban-on-Human-Reproductive-Cloning. The most common genetic modification is directed at the disease-affected cell, but the targets of gene therapy can be healthy cells as well, for example, cells of the immune system, which would represent a form of vaccination. Regarding the purposefulness and rationality of the application of gene therapy in cases where conventional therapies are also available, it is considered that the relevant criteria for the selection of diseases for gene therapy are as follows: 1) that there is no other effective treatment, 2) that one organ is affected (primarily), 3) that there is an animal model and the success of therapy in human cells *in vitro*, 4) a safe procedure, and 5) monogenic disease with the identified genome (in regards to hereditary disorders). There are several ways to implement gene therapy. *Ex vivo* therapy implies that the target cells of the patient are isolated, genetical-

oping techniques for interventions on non-reproductive body cells. Only recently the researchers have started to announce credible successes in improving the health of patients through gene therapy, suggesting new breakthroughs in this field.

Progress in research in the modern age gives rise to the possibility that man has a technical capacity to modify the genes[11] that will be transferred to the next generation. This is about the so-called hereditary genetic modifications, or any biomedical interventions from which it could be expected to transform the genome[12] that a person can transfer to their offspring. One form of hereditary genetic modification is the treatment of embryos or reproductive cells that develop in an egg or sperm of the developing organism, and the transmission of its hereditary properties. The second form of the so-called germinal therapy is the modification of gametes (sperm or ovum cells) or the cells from which they originate. Other evolving technologies, such as the insertion of artificial chromosomes, can also induce genetic changes that can be inherited.

What are the possible explanations for the development and application of such technologies? In theory, the modification of genes that are transferable to future generations can have a number of advantages over gene therapy of somatic cells. The hereditary genetic modifications offer the possibility of preventing the inheritance of certain genetically-based illnesses within a family, instead of repeating the somatic therapy from generation to generation. Some scientists and bioethicists believe that germinal interventions are necessary from a medical point of view to prevent certain types of disorders, because there are situations in which screening and selection are not applicable, as in the case of parents with the same mutation.[13] Because germinal intervention can act at the earliest stage of human development, it also offers the potential to prevent irreversible damage that can be associated with defective genes before they occur. Over a long period of time, germinal gene modifications can be used to reduce the occurrence of certain hereditary diseases in the human gene pool

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ly modified, and then returned to the patient. In *In-situ* therapy, the therapeutic gene is inserted into the localized and accessible part of the body (for example, in melanoma of the skin) along with the vector. *In vivo* therapy means that the therapeutic gene is inserted directly into the body (in the circulation, in the liver, muscles, lungs ...). Data is from I. Novaković, "Tehnologija rekombinovane DNK i genetičko inženjerstvo. Testovi hibridizacije, molekularna citogenetika, PCR", 11-13, http://www.mfub.bg.ac.rs/dotAsset/37433.pdf.

[11] Genetic modification, in its broadest sense, implies any alteration in genes, potentially by recombination of inherited parent genes, and is obtained by combination of parent organisms, hybridization during the process of breeding and selection of organisms. Genome changes can be also changes in the number of chromozomes, or larger changes in genetic makeup, obtained by cytogenetics techniques. Genetic modification can occur at a gene level, or at the level of a smaller group of genes, by techniques of molecular genetics, i.e. genetic engineering.

[12] The genome is a set of hereditary factors or genes that are found only in one set of chromosomes. Consult: D. Marinković, N. Tucić, and V. Kekić, *Genetika* (Beograd: Naučna knjiga, 1985), 21.

[13] See B. K. Zimmerman, "Human Germ Line Therapy: The Case for Its Development and Use", *The Journal of Medicine and Philosophy* 16, no. 6 (1991): 597.

that cause great suffering and problems.

Attempts to modify the genes which will be transmitted to future generations, cause profound bioethical, theological, legal and political dilemmas because of the possible change in the fundamental characteristics of our descendants. These techniques can give mankind extraordinary control over the biological properties and personality characteristics that are today considered as essentially human.[14] Scientists and (bio)ethicists pay attention to hereditary genetic interventions in humans, especially in the last four and a half decades. Already in 1972, several scientists warned that future gene therapy of somatic cells would imply the risk of unintentional change of germ cells as well as of target somatic cells. With the current gene addition technology, iatrogenic genetic damages can occur as a result of unintended germinative side effects of somatic cell therapy. These problems are at least as great as the consequences of genetic damage that might arise from the intended germinal transfers. Therefore, attention must also be paid to the accompanying or side effects of somatic cell therapy, as well as to those that are currently being planned.[15]

What are the intrinsic considerations, i.e. the bioethical aspects that must be considered before possibly starting with hereditary genetic modifications? First of all, it is necessary to ask oneself if there are fundamental reasons for such interventions, i.e. whether they are in principle morally permissible. Secondly, we need to examine the social dimension and the moral action or the impact that these technologies can have on human society.

Some analysts claim that human genes have specific significance and value because, biologically speaking, they are essential for the existence of mankind. Others argue that genes make it possible to distinguish people from one another as individuals, and that they are the core of humanity. On the basis of these views, conclusions are drawn that genes deserve a special status that preexcludes germinal intervention in order to modify them.[16] But even if it is recognized that human genes have extraor-

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[14] Consult C. F. von Weizsäcker, *Die Verantwortung der Wissenschaft im Atomzeitalter* (Göttingen: Vandenhoeck & Ruprecht, 1986).

[15] In addition to significant technical constraints, gene therapy implies the problems related to adverse effects that can occur due to the handling of hereditary material. Possibly, the viral vector may cause severe and even lethal infections in the patient, as was the case with a young man who received gene therapy due to ornithine transcarbamylase deficiency (1999). Also, the insertion of foreign DNA can trigger carcinogenesis processes, which is in practice recorded by malignant disease in several cases. It is generally believed that the best prospects for the application of gene therapy are in malignant diseases, and the majority of the most tested gene therapy protocols in humans so far is related to the treatment of malignant diseases (about 69%), followed by the treatment of monogenic diseases such as cystic fibrosis, Duchenne muscle dystrophy, ADA deficiency, haemophilia (17%) and the treatment of infectious diseases, primarily AIDS (12%). See I. Novaković "Tehnologija rekombinovane DNK i genetičko inženjerstvo. Testovi hibridizacije, molekularna citogenetika, PCR", 14, http://www.mfub.bg.ac.rs/dotAsset/37433.pdf.

[16] Consult A. R. Chapman, *Unprecedented Choices: Religious Ethics at the Frontiers of Science* (Minneapolis: Fortress, 1999), 153-156.

dinary significance and value, this does not have to be an argument for *a priori* rejection of all studies on hereditary genetic modifications. The genes, as well as other parts of the human body, have a derived value and significance, and only through human thinking discourses[17] they gain their specific status, which should not be inviolable and untouchable in an almost religious sense. By contrast, precisely because genes have such a great significance for action in human beings, it is also bioethically important that they perform their function in the most appropriate way. Moreover, it can be argued that if there is a technical possibility in this direction, without serious damage to human well-being and the values that dominate the human society, people are almost obliged to repair genes both in current and future generations.[18]

It is also noted that future generations have the right to inherit an unmodified human gene base because the gene pool represents their "genetic heritage", resources or wealth to which all people are equally entitled as to the "common heritage" of the human species. An additional assertion, e.g. in the resolution of the Parliamentary Assembly of the Council of Europe, is that individuals have the right to genetic heritage that has not been artificially modified, except in circumstances that are recognized as compatible with full respect for human rights.[19] Though they sound quite acceptable, these views can be challenged as well. Strictly speaking, while individual humans have germinative cells and their genus, the human species has no "germinative line" in the genealogical sense of the word. Human gene pool is also a kind of heuristic abstraction, not a natural thing, because the reference material in nature is

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[17] See W. Heisenberg, *Physics and Beyond* (New York, Evanston, and London: Harper & Row, Publishers, 1971), XVII.

[18] The argument that genetic modification of an organism is impersmissible from the bioethical point of view since it is in opposition to the natural flow of things, i.e. because it is unnatural, should be additionally problematized. Namely, to (self)understanding of the essence of man belongs the feeling or image of a kind of the sundering of the direct i.e. natural existence of man, which makes man in its own perspective a unique event in the world, because his existence is represented to him as un-natural, artificial, modifiable, as second-nature or the highest point of the continuity of nature. In other words, spiritual existence of man may be understood as the highest step of his natural existence (or nature in general), or as a walkaway from natural existence. Hence, to say that something is un-natural does not mean nor imply that it immanently bears a negative axiological sign.

[19] "Recommendation 934 on Genetic Engineering", adopted on 26 Jan. 1982, in *Texts Adopted by the Assembly*, 33rd Ordinary Session, Third part, January 25-29, 1982 (Strasbourg: the Council of Europe, 1982). Article 1 of the "Universal Declaration of Human Rights" from 1948 states: "All human beings are born free and equal in dignity and rights", http://www.un.org/en/universal-declaration-human-rights/. And in Article 23 of the "Constitution of the Republic of Serbia" the constitution-maker states: "Human dignity is inviolable and everyone is obliged to respect and protect it" ("Ustav Republike Srbije", Beograd: Kanc. za sarad. s med. Vlade Republike Srbije, 2006), 9. This is not only an ontological statement, but at the same time a source of the law and therefore Article 3 of the Constitution stipulates: "Rule of law is a fundamental prerequisite for the Constitution which is based on inalienable human right". Consult "Ustav Republike Srbije" (Beograd: Kanc. za sarad. s med. Vlade Republike Srbije, 2006), 4.

missing. Individuals simply inherit a specific set of genes derived from their parents. Therefore, from the biomedical perspective, there is no intergenerational "human germination line" that can serve as a backbone and an important factor for the future of the human race.

Since it is important to ensure that future generations have open access to the benefits of genetic research, it is conceptually wrong to interpret the human gene pool as a "gift" accumulated by wise investment during natural selection, and which can be controlled and managed by people today. The evolution process that controls the allelic[20] content of the human gene pool is not something that can be managed or controlled. The human gene pool is not fixed and constant, but in a constant flow throughout the human history.

Other analysts believe that, in principle, it should not been allowed to change the genetic appearance of future individuals through germinative interventions, because their approval can not be obtained, that is, consent.[21] Of course, this is the so-called intergenerational ethics,[22] where it is not easy to determine the nature and the basis of the obligations that the present generations have towards the future generations. The responsibility of preserving the interests of future generations as such is undoubtedly the responsibility of present men, but the question is whether this obligation should completely stop researching hereditary genetic modifications. The obligation to take the offspring into consideration can also be expressed as an obligation to provide a better life for the offspring, which may include the elimination of harmful genes and the subsequent improvement of the health perspective of future generations.

A special aspect of the impact of hereditary genetic modifications on the community which to be emphasized is the segment concerning the equality and justice[23] of people. Well-off citizens could, besides providing their children with the best economic, social and many other prerequisites provide them the best "nature" as well. The material advantage of a small number of people would thus be capitalized in the

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[20] Different forms of the existence of one gene are called alleles of that gene. See V. Diklić, M. Kosanović, J. Nikoliš, and S. Dukić, *Biologija sa humanom genetikom* (Beograd: Grafopan, 2001), 231.

[21] Consult M. Lappé, "Ethical Issues in Manipulating the Human Germ Line," *The Journal of Medicine and Philosophy* 16, no. 6 (1991): 621-639.

[22] On rights of future people *vis-à-vis* presently living people see more in *Stanford Encyclopedia of Philosophy*, https://plato.stanford.edu/entries/justice-intergenerational/.

[23] Literature on both philosophy and law mentions numerous types of justice, including anamnetic, distributive, economic, egalitarian, formal, global, civil, international, intergenerational, corrective, commutative, cosmopolitan, compensatory, criminal, procedural, spatial, political, retributive, distributive, restorative, reparative, world, substantive, social, transitional, legal, women's, etc. About certain aspects of justice, consult the author's books: Ž. Kaluđerović, *Presokratsko razumevanje pravde* (Sremski Karlovci-Novi Sad: I. k. Z. Stojanovića, 2013); Ž. Kaluđerović, *Helensko poimanje pravde* (Sremski Karlovci-Novi Sad: I. k. Z. Stojanovića, 2010).

genetically better offspring, which would further deepen the gap between people and create a dangerous dimension of "natural" inequality among people.[24] This only indicates how much care should be taken in the course of potential development of hereditary genetic modifications and even more with their possible use. A commutative form of justice in health in many, even in some highly developed countries has not been implemented in practice or is still at a declarative level[25], which could, hypothetically, lead to more frequent use of new technology by highly educated and well-off people. This, accompanied by the so called racial point, namely possibly the more widely spread use of hereditary genetic modifications by one race, could make *hiatus* among humans in genetic matters as well, and lead to potentially very dangerous social and political consequences in some countries, as well as at the international level. The hereditary genetic modifications can also increase prejudice towards people with special needs, which additionally points to care, caution and careful control, because prejudices[26] are already difficult and slow to change.

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[24] This gap is inspired by various quasi-scientific theses about the intrinsic superiority of the rich and inferiority of the poor. Intelligence test (IQ test) e.g. was originally established as a way of discrimination between "capable" and "incompetent" people. The assumption was that intelligence is an innate genetic quality, so the early version of this test accordingly overlooked the impact of education. As a consequence, an inaccurate conclusion was drawn that poorer people have a lower intelligence coefficient than the rich. A well-known representative of this thesis and the founder of the first department for human genetics in the world was Francis Galton. See F. Galton, *Hereditary Genius* (Honolulu, Hawaii: University Press of the Pacific, 2001).

[25] Official formulations are completely acceptable. According to Article 20 of the "Health Care Law" of the Republic of Serbia: "The principle of equity of health care shall be realized by the ban on discrimination while providing health care on the grounds of race, sex, age, national affiliation, social origin, religious beliefs, political or other affiliations, income scale, culture, language, kind of disease, mental or bodily disability." Consult "Zakon o zdravstvenoj zaštiti", https://www.paragraf.rs/propisi/zakon_o_zdravstvenoj_zastiti.html.

[26] The word "prejudice" should be here understood in line with its etymology: "pre-judgement", therefore something that precedes the judgement. Even today, when scientists and philosophers make significant efforts to clarify certain things, they do so in environments where many prejudices are already present. However, the nature of the scientific opinion is that it is not led by existing prejudices, but explores them, critically reviews and replaces them with explanatory clarifications and an adequate understanding. Many US federal states passed laws that stipulated imprisonment and/or sterilization for the so-called inferior categories of population. The inferior categories of the population ment mentally ill, people with low intelligence coefficient and criminals. How much prejudices have gained momentum is illustrated by the fact that in some countries the notion of inferiority was understood even more broadly, so it included both homosexuals and communists. Overall, during the 1930s, approximately 20,000 people were sterilized in the United States. The negative eugenics culminated in extensive sterilization procedures carried out in Nazi Germany. Through such acts, from 1934 to 1945, some 400,000 "genetically vulnerable" people were forcibly sterilized, according to an appropriate law on the protection of descendants from hereditary diseases. Of course, this number does not include thousands of Jews, Roma and other victims who were unlawfully sterilized in concentration camps during the war. Finally, about 200,000 people on the European soil were "eliminated" as a result of Operation T4 ("euthanasia") and its consequences between 1939 and the end of the Second World War. See https://www.britannica.com/event/T4-Program.

The problem that may arise in regards to the germinative manipulation in humans can result in acceleration of tendencies for the commercialization of children's gender as well, even children as a whole, and their assessment according to appropriate quality standards, no matter how harsh and unacceptably this phrase sounds. Given the increasing tendency for patients to be treated as consumers of certain services and the ever-present idea of the economic justification of certain treatments, this danger is increasingly present.

Bioethicists also express concern that the advancement technology may lead to the imposition of a harmful or distorted perception of normality and alongside of that what constitutes an improvement in human characteristics.[27] Therefore, for some it is dangerous to define a normal human genome uniformly, since thus all deviations from the normal sequence will be considered abnormal and undesirable. Problems also exist due to different cultural and social paradigms in some countries, for which subsequently there could be attempts to impose them to other countries and nations.

The author is at the standing point that the use of hereditary genetic modifications for preventive purposes and for the treatment of clearly indicated diseases in future generations does not necessarily lead directly to eugenics, but that strong measures are needed to ensure that the entire activity at some point does not turn into a tendency towards improvement of human traits.[28] If hereditary genetic modifications are used at all, they should be used exclusively for therapeutic purposes, and only when other treatment options do not give specific adequate results.[29] Of course, there will always be a risk that the development of applications to correct the defective alleles will be, due to the same nature or similarity of the technology, transformed into a seemingly hard to notice improvement of someone's characteristics. For example, the ability to correct genes that are responsible for the development of Alzheimer's disease can at the same time mean the ability to improve someone's memory.[30]

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[27] There are theses that, in the absence of an objective and unique definition of a "normal" state, the meaning of what is considered normal will be highly variable and fluid, which would not be a surprise given the skeptical and relativistic spirit of the epoch. The result of such processes may be that what now seems to be radical and unacceptable could become quite acceptable in the near future.

[28] It is recommendable to favor basic studies at the cellular and animal levels that concern the consequence of germinative modifications. This is consistent with a long tradition of scientific freedom and reflects the understanding that the prevention of such research can deprive the humanity of unexpected discoveries that can inform or make progress in other areas of medical research, as well as in the research concerning hereditary genetic modifications.

[29] There is interesting information that appeared in the media at the end of 2017. Namely, for the first time, scientists have tried to alter a gene in the human body in order to permanently alter this person's DNA and thus cure the disease. Brian Madeux (age 44), who is suffering from a metabolic disorder called Hunter's syndrome, intravenously received billions of copies of the corrective gene and a genetic tool that needs to cut his DNA in a precisely defined place. See https://www.apnews.com/4ae98919b52e43d8a8960e0e260feb0a.

[30] Hereditary genetic modifications, however, do not represent neither close nor real medi-

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It is not to be expected, however, that scientists will abandon their projects because of the potential dangers of future inventions, nor are things so black that Peter Sloterdijk should be followed in the conclusion that anything that anyone does today in the space that is under the influence of technical advancement, has been put into the function of general military strategies, including, according to him, the technological progress itself.[31]

The process of spreading scientific and technical achievements is an anthropological phenomenon that is difficult to stop, because it is considered to be the ontological determinant of the modern man. The society truly has a complex task to balance between the scientific freedom of research and the responsibility of preserving social norms and social values.[32] "Scientific freedom ... is an acquired right, generally approved by society as necessary for the advancement of knowledge from which society may benefit." But "scientific freedom and responsibility are basically inseparable."[33]

The usual behavior of a typical scientist, especially in natural and technical sciences, until recently was characterized by simplified utilitarian reasoning and scientific reductionism, thinking and decision making on science in its narrowest part, excluding

cal or scientific problem for most of African, and not only African, developing states, since they have to deal with more important health issues. A confirmation of this thesis can also be obtained by a brief insight into the official statistics of the United Nations Organization. According to them, the leading causes of child mortality in developing countries are the following diseases: pneumonia, diarrhea, malaria and varicella (all illnesses that can therefore be relatively easily prevented by the elementary improvement of basic health care). Annually, from over 470,000 people die from malaria in the world, out of which about 80% are in seventeen mainly African countries. In 2013, over 140,000 children, mostly under five years of age, died of varicella. In the same year, less than 1.5 million people died from tuberculosis, while the number of AIDS fatalities was also around 1.5 million people. Finally, nearly six million children under five years of age die annually from various diseases that can be cured. The UN's official data was taken from *The Millennium Development Goals Report 2015*, http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf.

[31] See P. Sloterdijk, *Critique of Cynical Reason* (Minneapolis London: University of Minnesota Press, 2001).

[32] Article 12b "Universal Declaration on the Human Genome and Human Rights" reads: "Freedom of research, which is necessary for the progress of knowledge, is part of freedom of thought. The applications of research, including applications in biology, genetics and medicine, concerning the human genome, shall seek to offer relief from suffering and improve the health of individuals and humankind as a whole." Consult "Universal Declaration on the Human Genome and Human Rights", http://unesdoc.unesco.org/images/0012/001229/122990eo.pdf.

[33] See AAAS Committee on Scientific Freedom and Responsibility, *Scientific Freedom and Responsibility* (Washington, DC: American Association for the Advancement of Science, 1975), 5, https://www.aaas.org/sites/default/files/SRHRL/PDF/1975-ScientificFreedomResponsibility.pdf.

or faintly mentioning the cooperation between different areas and the compatibility of their methods. Fortunately, there are more and more scientists who change the original attitude and it can also be said due to the holistic approach of certain social and humanistic sciences, and they begin to look at problems more comprehensively, taking into account knowledge from multiple disciplines when making conclusions on the use or non-use of certain methodology and technique. The smallest common denominator of all people should, or in fact, would have to be the attitude of Hans Jonas that "we should not compromise the conditions for an indefinite continuation of humanity on earth."[34]

The existing largely heteronomous prohibitions, although necessary, are not sufficient if the scientists themselves do not develop the awareness that they should follow the general humanistic moral principles and principles of scientific criticality. In complex times of strengthening social and technical and technological effects of science, it is necessary to (bio)ethically codify the issue of social responsibility of scientists, which because of its adequate internalization must be an integral part of their *paideia* from the earliest days. It is very important that scientists and philosophers in their conclusions and insights which, especially in humanities, often have the character of value beliefs, do not go below the achieved civilization standards of ethical and moral culture, and that they consider various topics with due care and awareness of the dilemmas that can be encountered in their professional work. An appropriate interdisciplinary, multidisciplinary, transdisciplinary and pluriperspective approach should ultimately result in a more delicate and responsible attitude of the scientists themselves towards the possibilities of their own scientific discipline and the significance of its effects.

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[34] Consult H. Jonas, *Princip odgovornosti* (Sarajevo: Veselin Masleša, 1990), 28.

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Practice and Human Form

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Abstract

All variants of pragmatism share the flaw that their concepts of practice rely on the idea of the local value of actions with respect only to locally defined aims and not on the criterion of a universal goodness. This paper claims that such a criterion can be found with the aid of an ontologically founded theory of the Good, which regards forms not as solely noematic universals, but as real, though abstract, entities. The idea of goodness is derived from the thesis of the immediate knowledge of the Good. Further consequences of this form of theoretical foundation of goodness are the abandonment of the dogma of the immediate reference of language to the world as well as of the dogma of the primacy of acting over thinking.

Key-words: *action; forms; goodness; knowledge; language; Methodical Constructivism; Methodical Culturalism; Practice; Pragmatism; Realism; thinking; truth; value*

I. Form Knowledge and the Pragmatist Challenge

In his critical commentary to John McDowell's Book *Mind and World*, Robert Brandom declares McDowell's attempt to derive the knowledge of universals (including the knowledge of forms) from an already conceptualized perception as failed.[1] As reason for this failure, Brandom identifies McDowell's understanding of knowledge as an individual think-act of an individual mind, a circumstance that leads to the problem of the intersubjective adjustment of the contents of each individual thinker's thoughts. Nevertheless, both McDowell and Brandom agree that forms – as well as all other universals – are purely noematic objects, i.e. objects created by the activity of thinking, which have no real existence whatsoever. The only entities

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[1] Robert Brandom, "Perception and Rational Constraint – McDowell's Mind and World", *Philosophical Issues* 7 (1995): 241-259.

having a real existence are singular material things. McDowell and Brandom share this nominalist stance with the traditional Empiricists. Brandom also agrees with Mc-Dowell as to the diagnosis according to which the solely noematically constituted form-concepts lack any normative power, i.e. neither their content nor the method of their constitution can claim any universal validity either as criteria of goodness or as categorical imperatives.

There are two traditional proposals for resolving this problem: either by means of the voluntarist claim according to which the extension of the normative power of a noematically constituted universal beyond the confines of an individual mind has to be enforced by stipulation, or through the relativist claim that universal validity has to be given up completely, while accepting a mere local and hypothetical validity of such "general" concepts instead. Both proposals lead, however, to the same impasse, namely to the apparent insight that normativity is nothing else than a kind of more or less gentle coercion.

Brandom regards McDowell's theory of conceptualized perception as an attempt to avoid this impasse, in which every traditional empiricist account is caught, without betraying the Nominalist Credo that prevails since Ockham's times. Brandom realizes, however, that McDowell's theory is not only incapable of resolving the problem of the normativity of form-concepts, but also that it rather removes it from the vicinity of any intellectual solution, because it declares the knowledge of universals as a non-analyzable fundamental fact of the world. Nevertheless, Brandom thinks that McDowell's conclusions can be avoided without the need to give up fundamental empiricist and nominalist principles, providing the knowledge of universals is conceived as a sort of collective noematic achievement that is rendered possible by the collective acquaintance with material things within the scope of a social practice. Brandom thus joins *Pragmatism*, that great philosophical tradition, which has endeavored to repair the flaws of classical Empiricism since the end of the 19th century, along with its 20th century heir and successor, Logical Empiricism, without falling back to the long ago vanquished ideas of Aristotelian form-realism or, still worse, of Platonism.

Contemporary Pragmatism is split in two "Grand Families". Their common denominator is the thesis of the *primacy of knowledge obtained through participation in practice before propositional knowledge* of both the *quiddity* (the what-it-is of an object) and the *haecceity* (the so-it-is-here-and-now of an object) of the objects. Pragmatism perceives as practice every joint action that is sufficiently stable and successful over a prolonged period of time and across a certain spatial area so that its performance can encompass several generations. A practice is therefore part of the reality that every human has been confronted with and has had to cope with since the moment of his or her birth. This definition entails, on the other hand, the claim that every potential participant in a practice has to possess the faculty of adapting her individual actions to the actions of the other practice participants, without recurring to any higher noematic objects like form-concepts or abstract knowledge. The primary acquaintance with a given practice takes place by blindly imitating and following

the actions of the "fully grown" and already competent participants. It should be stressed at this point that linguistic communication is also regarded as part of this inescapable life-worldly common denominators. A further common belief of both "Grand Families" of Pragmatism is that the structuring moments of practices – their rules and forms – are constituted by the subsequent reflective activity of the mind and the analysis of the primarily unquestioningly accepted practices.

The differences between both "Grand Families" become manifest at the level of the methods that lead from the life-worldly basis of practices to the noematic "superstructure" of the general and normative concepts as well as of the exact theories of the sciences that are constituted by them and that are thought to sustain theoretically the corresponding life-wordly practices. One "Family" claims – with reference to the "founding elders" of Pragmatism, W. James and J. Dewey – that the particular reasons for the choice of a particular scientific method are to be found in the limbo of the traditions of a life-worldly reflective practice[2], and asserts – inspired by the late Wittgenstein and by Quine – that it is the practice of linguistic communication that enables both the basic co-operation in the life-worldly social and poietic practices as well as the elaborated, knowledge-oriented and strictly rule-guided communication of scientific practices. According to this doctrine – that we would here call "Ordinary Language Pragmatism", – a person is introduced simultaneously to both language games, and the reflective activity of the mind consists basically in clearly distinguishing between these language games and in setting up systematic correlations between them. This is so – according to the main argument of Ordinary Language Pragmatism – because scientific language has been always part of human everyday language, notwithstanding the fact that the scientific contents, i.e. what counts as a scientific fact, can change with the passage of time.

The other "Grand Family", better known as "Methodical Philosophy"[3], criticizes its linguistically oriented relatives for being caught in Relativism, reinforced by a holistic attitude towards meaning. Methodical Philosophy tries to avoid this problem by establishing a historico-hierarchical relationship between both the practice and the language levels: According to it, the scientific practices and their specific languages have evolved from the life-worldly practices in a historical process of overcoming concrete problems that impeded the normal flow of everyday life. The various sciences have come and can still come into existence out of this kind of necessity – as "Sciences of Need" and not as "Sciences of Luxury"[4] – by the "idealization" and

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[2] To this "Family" belong in the late 20th century among others: F. Kambartel, P. Stekeler-Weithofer, H.-J. Schneider, H. Putnam, R. Rorty und R. Brandom.

[3] To this purely German speaking "Family", which includes the so called "Methodical Constructivism" and its heir "Methodical Culturalism", belong among others: P. Lorenzen, W. Kamlah, K. Lorenz, P. Janich, J. Mittelstraß, C.F. Gethmann, D. Hartmann, M. Weingarten und M. Gutmann.

[4] Paul Lorenzen, "Konstruktivismus", *Journal for General Philosophy of Science* 25, no. 1 (1994): 125-133.

the "refinement" of the methods, the ends and the objects of the life-worldly practices to the corresponding scientific ones. This is achieved mainly by the so-called "material abstraction", which is used for the primary "operational" constitution of the scientific objects. The term "operational" means that in order to establish the equivalence relation underlying the constitution of each scientific object, a universally applicable technical process (under terrestrial conditions) is used that enables the prototype-free[5] determination of the equivalence relation and subsequently the prototype-free definition of the given scientific object. The reproducibility of the operational definition procedures is safeguarded by the so-called "Principle of Methodical Order", which demands that the order of the linguistic description follows strictly the order of the actions that are necessary and sufficient for the operational definition. Its validity relies on the assumption that a univocally defined aim can be achieved in principle by a univocally determined action or a chain of actions and that in case more than one chains of actions lead to a given aim, one of them is the "shortest" ("Principle of Pragmatic Order").

The above outlined procedure makes clear that the methodical variant of Pragmatism can in fact avoid, on the one hand, the obstacles of Holism and Relativism, by constructing the abstract language of the scientific objects and methods on the fundament of an object language that does not contain any general concepts (in the terminology of this variant of Pragmatism: abstractors and abstract terms), but only individual and sortal terms, indexicals as well as quantifiers and junctors. On the other hand, however, this procedure has to face the problem of not being able to justify the choice of the logical method that is used for the constitution, thus becoming prone to Voluntarism. In order to resolve also this issue, some Methodical Pragmatists tried to derive the language of logic from an underlying life-worldly language of argumentation. Such efforts are, however, in vain since they cannot explain why the idealization of a life-worldly language of argumentation leads straightforwardly to classical predicate logic. Even the introduction of a "Relevance Logic"[6] does not provide any relief because it replaces the classical concept of truth by a quite opaque idea of "relevance", that either leads to the same old logical paradoxes, or obscures completely the logical coherence of scientific statements.

Despite their differences regarding the implementation of practice and agency in

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[5] The term "prototype free" means that the constitution of the equivalence relation does not depend on any real thing that acts as a measure or as standard for the object defined by equivalence relation in question. An object constitution that would depend on a prototype would be confronted with the intractable problem to prove the existence of the equivalence between the prototype and the examples of the object that were created according to it. The prototype bound definition of an object is thus in a similar way flawed as the concept of ideas that states that ideas exist separately from the things that realize them. This concept is refuted in the Platonic dialogue *Parmenides*.

[6] Dirk Hartmann, *On Inferring. An Enquiry into Relevance and Validity* (Paderborn: Mentis, 2003).

the determination of the universality and normativity of general concepts, because both "Grand Families" of Pragmatism begin with the reflexive analysis of local action contexts, they face also a common problem, namely the fact that their common concept of practice relies on the local and culturally bound *value* of a given context of actions and not on its universal *goodness*. However, the very fact of a locally established action context that is of a certain value for its participants cannot justify its universal goodness. This justification cannot be achieved even if one succeeds in enlarging the group of participants by voluntary joining, in such a manner that it may factually encompass the totality of the existing human population, since even a worldwide participation in a context of actions is not immune against the possibility of an action that is essentially lacking universal goodness despite the fact that it has a worldwide value: Many critics of the "current circumstances", from the ancient opponents of slavery to anti-monarchist and anti-mercantilists of the European Enlightenment to the contemporary ecological, humanist and anti-capitalist movements, stress in their argumentations that humanity has arranged itself with a merely apparent comfort that misses the real end of a universally good life.

Both "families" of Pragmatism are aware of the problem of the normative universalization of merely noematically constituted general concepts. They have made attempts to overcome it by introducing a variety of principles – of which the Principles of the Methodical and the Pragmatic Order are two examples – that are supposed to ensure that voluntarist and/or relativist impasses are avoided. The introduction of principles, however, just shifts the problem without resolving it: principles are namely notoriously taunted with the flaw that their problem-solving ability can neither be justified nor evaluated in advance. In their best, case principles can prove their value only through the success of their application. Again, one has to decide if this success is a proof of the universal goodness or merely of the local value of the principle. With respect to this, principles are even of a poorer status than axioms because the latter raise the (admittedly not easily redeemable) claim that they are true and their truth is knowable.

Methodical Culturalism tries to circumnavigate this problem by declaring *transculturality* as a necessary criterion for the universal goodness of scientific objects. Transculturality is, however, not sufficient since the factual overcoming of cultural borders is no indication for the transformation of something locally valuable into something universally good, even if one demands that the acceptance of new norms and procedures has to be strictly voluntary. There is namely no argument that *obliges* any life-worldly practice to accept the advice of scientific knowledge, except for Lorenzen's hint, that existential privation will see to it so that it happens. This may be a striking argument; it has, however, the disadvantage that its addressee will turn the tables at the first opportunity. The skeptical attitude towards science that has been manifest since Husserl's *Krisisschrift*[7] is the best indication for the failure of a merely

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[7] Edmund Husserl, *Die Krisis der europäischen Wissenschaft und die transzendentale Phänome-*

concrete problems- resolving science to conquer also the hearts of people as the method for achieving universal goodness.

In my opinion, there are two reasons for the inability of Pragmatism to overcome these aporias:

Firstly, pragmatism as well as the totality of the 20th century Philosophy of Science unconditionally accepts the dogma of the *immediate reference of language to the world* as it has explicitly been proposed in Wittgenstein's work. The main difference between Pragmatism and the Philosophy of Language that has evolved under the influence of Logical Empiricism is that Philosophers of Language regard the world as the sum of "elementary existences"[8] that exist independently of the subjects of knowledge, while pragmatists regard it as a network of practice contexts that define what an "elementary existence" is.

Secondly, pragmatism cannot provide a criterion that is independent from the concept of action for the distinction between such action contexts that constitute a practice and such ones that do not. The "criterion of the success of action" cannot fulfill this purpose because it depends on the internal coherence between an action and its aim. The desired criterion of demarcation, however, has to qualify something as a practice (or as a non-practice) independently of the factual success of actions.

In the following considerations, I will aim at showing that this criterion can be obtained only by a form-theoretically founded theory of Goodness, which treats forms as *real* and not as merely noematically constituted universals. A further consequence of such a realist form-theoretical foundation of Goodness is the abandoning of the dogma of the immediate reference of language to the world.

II. The Foundation of Practice in Goodness

The problem of determining the very nature of practice and its differentiation from a mere opportunistic coincidence of actions can be found in philosophical thinking since its beginnings in Greek antiquity. It is implicitly present in the dispute between Parmenides and Heraclitus about the nature of being and the truth, and also in the controversy between Cratylus and Hermogenes in the homonymous Platonic dialogue. There, Cratylus takes up the Parmenidean position that declares truth as the uppermost good and identifies it with the being itself, also claiming that in order for a true sentence to mean the being, a its parts too – every single word it is composed of – have to be directly related to being, down to the phonetic structure. His friend Hermogenes, on the other hand, is an adherent of Heraclitus' opinion and asserts (in contrast to Cratylus) that both the semantic relationship between word and object

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nologie (Hamburg: Meiner, 1977).

[8] The exact nature of these elementary existences is defined differently in each particular theory: Carnap, for example, determines them as "elementary experiences", Wittgenstein (in the *Tractatus*) as "states of affairs", Quine as "stimuli", and Russell as "facts".

as well as its phonetic structure are purely human constructions. Meaning and structure of a word are – in modern terms – conventional. Socrates, appointed by both parties as an arbiter, initially supports Cratylus' position, but finally comes to the conclusion that the correspondence relationship between word and object cannot be iso-structural, since even in the Greek language there are too many deviations and variants in the phonetic structure of a given word, and it cannot be that each single variant depicts the nature of the referred object, or even an aspect of it. With this conclusion, however, Socrates manoeuvres himself in an aporetic impasse because already at the beginning of the dialogue, he rebutted Hermogenes'/Heraclitus' claim that both, word meaning and phonetics, were purely conventional with the argument that if this were the case then a science of word semantics and of linguistics would be impossible; however, both sciences do exist.

As in many other cases of such "Platonic aporias", the resolution of which is only foreshadowed in the Platonic oeuvre, the merit of giving an explicit solution of the Cratylus problem goes to Aristotle: The aporetic situation between word and object comes up because both Cratylos and Hermogenes think that there is a direct iconic relationship between word and real object, the nature of which they seek to describe. This relationship, as Aristotle adheres, is, however, an indirect one. Word and real object are separated by the νοῦς, the faculty of the human soul that aims at the knowledge of the essence of real objects. Words depict solely the contents of noetic states, of thoughts. Their only connection to real objects is that they enable the phonetic representation of the noetic contents, which are the instances that depict the essence of real objects. Thus, the threat of an insurmountable relativism is banned: The relationship between thought and corresponding real object is universal, while the relationship between thought and word is, on the other hand, conventional and relative. This relativity is, however, neutralized because all linguistic systems refer to the same universal correspondence relationship between thoughts and real objects.

The Aristotelian solution relies on the fundamental belief that the human soul is not only able to synthesize a more or less accurate picture of reality from the data provided by the senses (Aristotle calls this faculty of the soul φαντασία – imagination), but that it is furthermore able by means of the faculty of the νοῦς – this term will be translated here with "intellect" – to distinguish in this picture the essential from the non-essential (i.e. accidental) aspects of the depicted real objects. The intellect is able to extract from the picture synthesized by imagination those "elements" that are responsible for the quiddity of a given real object and to combine them with the particular picture of this object in the judgment "This here is an X" – this faculty of the intellect being called "cognizing". In contrast to humans, creatures endowed only with the gift of imagination can only relate themselves to their particular imagination-generated pictures of the real world in the particular way that is given to them by virtue of their kind, without being able to distinguish between the essential and the accidental aspects of these pictures (unless the nature of their kinds has already anticipated such distinctions, something which manifests itself as

instinctive behavior).[9]

The main difference between human language and the voices of creatures equipped only with imagination is that the latter use their voices in order to represent phonetically their kind-specific imagination generated pictures of reality, while human language has the capacity to represent the content of the mental states that refer or correspond to the essence of the perceived real objects, i.e. the judgmental thoughts: The words obtain their object references by means of their connection to the thoughts. This model leaves enough leeway also for word meanings that refer to thoughts generated by the νοῦς for its own "internal" purposes, e.g. for the classification of being, or the construction of quantitative ratios, or in order to combine judgments.

Veraciousness and sociality (both essential traits of human beings) are the direct result of the cognitive and linguistic capabilities of the intellect. This is so because on the one hand the knowledge of the essential aspects of the objects is associated with the need for truth, that is with the need to know an object as it really and essentially is: Those who understand what true knowledge (σοφία) is, also understand that they also seek and desire true knowledge – so Aristotle's claim (in unison with Parmenides, Plato and Socrates). And those who know what σοφία is, are 'σοφίας φίλοι' – philosophers. The faculty of speech, on the other hand, liberates knowledge from the fetters of the individual confinement of each single mind and enables its mutual communication. Thus individual knowledge can be acquired by other cognizers and its truth can be reassessed and if necessary corrected – philosophizing is a genuinely social activity. It is, however, not necessary that in order to philosophize there has to be an actual assembly or a synchronous repetition of a given activity. In order to philosophize jointly, it is sufficient that the fellow philosophers just recognize and respect what one does. It is not necessary to respond immediately. They can live in another place or at another time and their access to the knowledge of a fellow philosopher can be mediated solely by scripture or by hearsay. They can communicate their own results much later, perhaps after an extended time of reflection. As long, however, as each single philosopher pursues the universal common good of true knowledge and aligns his own activity with it, he will participate in this world- and humanity-embracing project, that gives the paradigm for the genuinely human activity that since Plato is called a *practice* (πρᾶξις).

According to this understanding, a practice is not a collective activity aiming merely at an end that cannot be achieved by a single person, but a common effort for the sake of an end that is good for human nature itself (and thus for every past, present and future human being at every place of the universe). The universality of the *goodness* of an end does not entail, however, that this end is also absolutely

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[9] This model can also explain phenomena as the learning and dressing capability of higher animals, as well as the capacity of some higher mammals to "sense the voice of reason", i.e. to react appropriately to human speech.

valuable. The value of an end is assessed according to its local utility in relation to the respective local circumstances that determine the actualization of human life at a particular place at a given time. Its *goodness* on the other hand is based on the fact that it is in a certain relationship to the human nature itself and the degree of this goodness is assessed according to its proximity to this nature.[10]

III. The Practice of Knowing the Truth and its Objects

The participation in a practice is motivated solely by the knowledge of the goodness of its ends with philosophical knowledge being the end in the highest degree of goodness.[11] All other particular and object specific practices contain this aiming at true knowledge, although the knowledge aimed at it is not universal, but confined to the nature of a particular object. All particular practices have nevertheless in common that their specific ends are good, so that they have to be respected by every man, despite the fact that their specific values might be different for different cultures or needs.

Philosophy as the practice of knowing the truth is aimed at every bit of real existence as well as in every noematic object that results from the activity of intellect – concepts, onceptions, judgments, and syllogisms. Unlike any other particular science, philosophy has thus no specific – real or noematic – object. Philosophy cannot be identified with any particular science or any particular practice. Nevertheless, philosophy has its own specific methods of inquiry, which consist in determining the existence of an object, either by proving its reality or by proving its conceptual truth, both activities being traditionally labelled respectively as Ontology and Logic. Conceptual truth relies, however, on ontological truth because real existence manifests itself as occurrence in a spontaneous and irreducible manner. Without contact to real objects, the intellect wouldn't be able to synthesize an imagination-picture of the world, nor would it be able to recognize in it those aspects that are responsible for the quiddities of the real objects. It should be remarked at this point, however, that knowledge of real objects is not only sense mediated, but can be achieved also by an immediate mode, which will be discussed in a later section of this essay.

Thus, the objects of the practice of knowing the truth are the real and noematic, i.e. mere conceptual, truths with the latter being dependent on the former. Real truths are determined by their correspondence to real objects and mere conceptual truths are determined by their oncepttual reference to real and to other conceptual truths.

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[10] Instead of "goodness" and "value" one could use the terms "intrinsic" and "extrinsic value" or "eigenvalue" and "relative value".

[11] See for example Aristotle, *De Anima*.

IV. Ontological Excurse: Real Objects

The ontological primacy of reality over conceptuality requires that, in order to understand the nature of the practice of knowledge of the truth, the kinds and the nature of real objects first have to be determined. Ontology thus belongs to the objects of this practice. Real objects befall the human soul as irreducible primary experiences. This means that it is not in the absolute discretion of the soul to determine the constitution of their imaginative and of their noematic representations. Real objects present themselves to the intellect as primary phenomena. The influence of the capabilities of the intellect is confined to achieving a higher or lower "richness" of their noetic representations according to the extent of the contribution of each particular sense to their constitution and according to the ability of the intellect to distinguish clearly in the imagination-synthesized picture the aspects that are constitutive for their quiddities.

The classical ontological tradition distinguishes primarily following classes of real objects[12]:

- Formed single things.
- Forms of formed single things.
- Formless thing-resembling[13] singular phenomena ("formless single things").
- Real properties of formed and formless single things.
- Real relations between formed and formless single things and between properties of single things.

There are some good reasons to amend this catalogue by the class of formed processes, the class of the so-called tropes, the class of the formed and formless[14] phases, and the class of the spatiotemporal constellations. For the purposes of this essay we will, however, refrain from doing so and confine our reflections to the traditional ontological classes. We will also not touch the issue of the so-called "prime matter".

The fundamental ontological class is that of formed single things. Formed single

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[12] The classes described here do not match exactly the Aristotelian categories. The class of the formed single things, for example, corresponds to the Aristotelian category of substance, but the classes of real properties and real relations encompass several particular Aristotelian categories.

[13] The term "thing-resembling" means that the objects in question are spatiotemporally distinct. Examples for such entities are stones, drops, and clouds.

[14] We do not use here the term "amorphous" because it is used in Chemistry in order to designate the absence of a certain material property (crystal structure). With "formless phases" we mean those chemical substances that did not observe the "law of constant proportions". It holds in general that every formless phase is also amorphous, but not that every amorphous phase is formless.

things are characterized by their existential discreetness and self-sufficiency, i.e. they are spatiotemporally separate existences and they do not rely on any other factor in order to exist discreetly. Formed single things are *formed*, because their constitution shows that they owe their existence to an also real general concept of plan that renders possible judgments regarding the degree of compliance of a given formed single thing to the specifications of its corresponding plan, as well as the degree of deviation from those specifications. This underlying real general plan, the *form*, determines thus the quiddity of a formed single thing. Formed single things are also characterized by their existential *integrity*: their parts do not belong to same object class. Parts of plants and animals are not plants and animals, parts of machines, are not machines (at least not machines of the same functionality: parts of clocks are not clocks etc.). The parts of formed single things can be also formed, as it is the case for example with the organs of animals or with the gears making up a mechanic clock, or they can be formless.

On the other hand, the quiddity of formless thing-resembling phenomena is determined solely by their external look – by their *shape*. This shape can be definite, resembling e.g. a geometric figure, as is the case with mountains, piles of sand or floating droplets of a liquid, or nondescript, as is the case with stones or volumes of liquids that are flowing on a plane surface. The absence of a form has the consequence that formless things lack a criterion for being "well realized" as well as an existential integrity. Their parts thus fall into the same class as the still intact formless things: parts of piles are piles, parts of stones are stones, parts of mountains are mountains, and parts of drops are drops and so on.[15]

Formed single things can be classified into *natural* and *artificial* ones. The form of a natural formed single thing is real cause and integral part of its quiddity (another formulation of this circumstance is that a natural formed thing carries its form in itself). Artificial formed things, on the other hand, receive their form from an external source – in the case of terrestrial artificial things, this source is the planning of human activity. The form of artificially formed things is, in contrast to natural things, not a real object, but rather the content of a thought – the forms of artificial things are noematic, i.e. solely conceptual objects. On the contrary, natural formed things are able to realize their corresponding forms by means of a process that is inherent to them (this process is called *life*) and are also called *substances in the narrow sense*.

Regarding the existence of artificial formless things, it appears that already the term "formless artificial thing" is inconsistent und cannot therefore refer to any truth, be it a real or a conceptual one. This is so because an artificial thing is by its very nature the result of a planning activity that realizes a concept, i.e. a noematic form. An earth pile that has been erected in order to serve as a tumulus has thus not only a shape, but also fulfills a purpose, which is part of its concept. There are formless

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[15] There are also some conventional deviations from this classification, e.g. in some languages there are distinctions according to the size between mountains and hills, stones and rocks etc.

phenomena that can result from planning human activity, for example garbage dumps and heaps of rubble and debris, but they are not nevertheless the products of such an activity in the narrow sense of the term "product".

Real objects, formed as well as formless ones, and natural as well as artificial ones, are determined with regard to their actual existence by their real properties and their real relations to other real existences. The real properties of a thing determine its haecceity. Insofar, these properties depend on its form, therefore are its *essential properties*. Any other property that does not fulfill this criterion is *accidental*. The properties of formless things are thus in their entirety accidental.

When it comes to real relations, the most important ones are *identity* and *causality*. Identity is the univocal relation between the haecceity and the quiddity of a formed real thing. In order for identity to exist, both haecceity and quiddity have to have real existence. This means that real identity is proper only to natural formed things. Artificial things and formless things only have a conceptual identity, the former because their forms are conceptual objects and the latter because their quiddity is defined solely conventionally, therefore solely conceptually.

Causality is the relation of the absolute (i.e. necessary and sufficient) conditional dependence of a real object on another real object. The real object, the existence of which is the absolute condition for the existence of another real object is called its *cause*. The real object, the existence of which depends on the cause is the *effect* of that cause. The causal connection between real things is an *effective* one, while forms of real formed things and the formed things themselves are connected by a *form-causal* relationship. Forms of artificial real things are not real themselves and cannot thus be connected directly causally with them. They exert their causal faculty, however, mediated by human activity, being its ends. The causal relationship between forms of artificial things and their realizations is in effect a relationship of *finality* or *final causality*.

V. The Immediate Knowledge of the Human Form as the Foundation of the Knowledge of Forms in General

The practice of knowing the truth relies on the capability of the intellect to distinguish in the imagination-picture of reality between formed and formless things, to "extract" the forms of the former from the manifold of their perceived properties and to establish the relation of formal causality between the "extracted" forms and the perceived things. However, how does intellect know in the first place that there are forms that can be sought for? How does it know that forms exist and that they are real causes of the formed things? McDowell's assumption that perception itself is "conceptualized"[16] does not provide any clarification, since in this case, one also has to assume that forms have not only the capacity of formal, but also of effective

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[16] John McDowell, *Mind and World* (Cambridge & London: OUP, 1994).

causality[17] – otherwise they could not reach intellect via the perception organs. Furthermore, even if one accepts that forms are effective-causal entities, the effective capability cannot explain how their forming capability can be filtered out from the stream of perception. A further argument against the effecttive-causal capability of forms can be derived from Plato's so-called "third man argument", which is put forward in the platonic dialogue *Parmenides* in order to disprove the claim that ideas are separate real entities like the things that are their manifestations: if forms were effective-causal, like the Socratic ideas, then they should manifest themselves as spatio-temporal entities. If this were the case, then they should also have a real identity, i.e. their haecceity should be in a univocal relation to their quiddity. But if forms had quiddity and haecceity, then they would have their own formal causes, which would in turn also be effective-causal entities, since otherwise, they could not exert their forming capacities. This assumption leads to an infinite regress of formal causes, rendering the very idea of formal causality an absurdity.

Furthermore, if perceptions were conceptualized, then there would be no error possible with respect to determining the essential properties of a perceived thing – it could only be possible that we are not able to perceive them because of a failure of our perceptive capabilities. In other words, if perceptions were conceptualized, then we should have a sort of "concept perceptions" in the same sense that we have color, sound, tactile or other kinds of categorized perceptions. The only possible error would be that of correspondence, i.e. it could be possible that we could have the perception of an essential property of the perceived thing, for example the perception of quiddity of a thing that does not correspond to the real quiddity of this particular thing. Nevertheless, we could not err regarding the fact that we had a perception of a certain "quiddical" quality (e.g. a perception of "felineness" or "bovineness") in the same manner as we may have a certain color perception that does not match the actual color of the perceived thing. The only thing that we can say about formed things perceived for the first time, however, is at most that they are just formed and not what their form is. Knowing the form of a perceived thing, i.e. learning to distinguish its essential from its accidental properties, is something that we achieve after a detailed examination of the thing in question and even then this knowledge is still fallible and subject to revision.

Traditional Empiricism takes this fundamental fallibility of form knowledge as the reason to deny completely the real existence of forms. To the empiricist understanding forms are purely noematic truths that are "fabricated" by means of the noetic processing of a real, continuous input of "experiences". Whether real things are the effective cause of this input or whether it is the irreducible and absolute fundament

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[17] Hartmann, *On Inferring. An Enquiry into Relevance and Validity*, 42: "The world itself must exert a rational constraint on our thinking. If we suppose that rational answerability lapses at some outermost point of the space of reasons, short of the world itself, our picture ceases to depict anything recognizable as empirical judgment".

of our knowledge[18] is a controversial issue among empiricists that at this point is of no concern to us. The problem of empiricism is that if the knowledge of forms is a pure product of our individual intellect then it is a mystery that we have a common knowledge of forms even if this knowledge is confined to the knowledge of the human form. There are indeed empiricist positions that deny the existence of a common knowledge of forms, including the knowledge of the human form, and declare the fact of the intersubjective coincidence of such a knowledge as a contingent historical phenomenon. According to this stance, the normative force that emanates from form knowledge is nothing else than the enforcement of a particular belief, even if this belief proves in retrospect to be beneficial to everyone having adopted it. However, in this case, it is not possible to prove that the benefit resulting from the enforced acceptance of a particular merely noematically constituted form knowledge is real and not merely an apparent one. A purely empiricist theory of knowledge that totally denies the real existence of forms has great difficulties to justify even the intersubjective validity of a merely noematic form knowledge – an empiricist justification of the universality of such a knowledge cannot be given at all.

There has to be thus at least one kind of form knowledge that is based on the real existence of at least one form, since without such a knowledge we cannot even realize that humans belong to the same natural kind. The empiricist claim is correct, however, that it seems to be the case that this knowledge is not accessible via perceptive experience. It is only the empiricist solution of this problem, namely that this knowledge is the result of the constructive activity of intellect that leads to the impasse. The correct answer is rather that the knowledge of the human form is the background, on the basis of which the intellect of an individual human being can interpret the data provided by perception so that it can recognize in its own individual imagination-picture of reality other human beings. Therefore, the human form has to be known in a way that is completely independent from the content of any perception or from any other kind of mediated experience. The knowledge of the human form as well as of its real existence has to be a *direct* and *immediate* result of the activity of intellect, a result of that what is called *pure thinking*. Only so is it possible for us a) to know that we are formed single things and b) to distinguish between those perceptions referring to the fact of the reality of our existence as a formed single thing (proprioception) and those ones that are sensory perceptions of the external world, including the perception of the "exterior" of our bodies.

The knowledge of the human form arises together with the emergence of conscious thinking. The exact point of its emergence during the ontological development of a human being is of no relevance for our considerations. The important issue is that every human being has an immediate and direct knowledge of the human form from the very first moment when conscious thinking commences. The first thoughts of a human being regard the human form and the fact that it is its actualization, i.e.

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[18] The first claim was made e.g. by Locke and Quine, the latter e.g. by Hume and Carnap.

that it has a quiddity and a haecceity and that both modes of being are connected by the relation of identity. Quoting a traditional characterization, this knowledge is at the beginning of human life obscure and confused. Every human being has, however, the ability to gain by means of thinking and by active interaction with other humans a clearer and more distinct idea of its form. And, despite the fact that the knowledge of the human form is at the beginning of life obscure and confused, this knowledge is strong enough to enable even an infant to recognize in his/her imagination-picture of reality other actualizations of the human form and to address them as fellow humans.

The knowledge of the human form enables also every human being already at a very early age to search for the forms of the surrounding things and to use speech for articulating the noematic content of the thoughts that represent these forms: a toddler who can master language can already call the things that surround her by the names of their quiddities and in doing so he/she also learns to perform deictic actions as well as to adjust his/her own form knowledge to the form knowledge of other humans. By means of this triangulation, everyone is in position to talk with everyone else about the same real thing as the actualization of its particular form.

The most important evidence for the fact that every human is in possession of an immediate knowledge of the human form is the circumstance that already toddlers learn that personal pronouns must not be used as proper nouns and that they are not mere spatio-temporal indicators, but that they are used in order to demonstrate the identity relation of every human: "I", "you", "he/she" do not indicate merely the three spatio-temporal modes of a certain singular event, they rather indicate that I, you and he/she are respectively actualizations of the human form and that my knowledge of myself as actualization of this form is applicable also to You and to Him/Her. It is thus possible to infer from the statement "I beat You" the truth of the statement "You are hurt (by Me)". On the contrary, animals that have no knowledge of their form can grasp (if they are capable of grasping anything) only this kind of connection between two spatio-temporally separate entities: "A is affected in a certain way by B (e.g. A senses that B attacks him)" has as result that "B is directly reciprocally affected by A (e.g. B senses that A flees)".

Despite the fact that the knowledge of the human form is at the beginning of human life obscure and confused, it is nevertheless sufficient to enable the child to recognize that the adults who are taking care of it are more perfect actualizations of the human form. This is so because the knowledge of the human form informs the child about the degree of perfection of its own existence compared to the existence of adults. The knowledge of the human form also contains the knowledge of its own imperfection, being thus the reason that children orientate themselves to adults.

The knowledge of the human form is also the source of the normativity in human life. To know something entails namely that I treat everything, of which I have a certain degree of knowledge, according to this degree of knowledge, and my appropriate treatment of a thing shows that I have knowledge about it. If I know that

the object in front of me is a spoon, then I use it in order to eat my soup, and not in order to hammer a nail in the wall. My knowledge of the quiddity of a thing instructs me also about what I should not try to do with it because I won't succeed. This holds also for natural things: if I have knowledge about the quiddity of an animal or of a natural substance, then I behave towards it and handle it in accordance with its form. To harness a tiger to a cart and to try to use it as a draught animal reflects a fundamental ignorance of the tiger form. This ignorance can have many sources; it may lie in the deficient cognitive faculties of the persons involved, or it may be owed to the fact that they are not yet familiar with or haven't yet grasped the form of this animal.

Thus, from the knowledge of the human form, there also naturally arises the knowledge of what is ought towards other humans. This kind of obligation needs no further motivation, no "respect for the law"[19], but does motivate directly our actions – it is a "need of the human soul".[20] The "respect" (Kant) resp. the "obligation" (Weil) that we feel towards the human form and a fortiori also towards its single actualizations is the direct result of its knowledge.

Beyond this, the knowledge of the human form reveals to us that the forms of the formed things are real and not mere conceptual entities because the things and the processes that surround us are not entirely moldable by us. They display a certain degree of resistiveness that can be explained only by assuming that it is (at least partly) caused by the forms of the things. We recognize that many of the real things that surround us are formed because of our knowledge that we are also formed things even if we cannot have a direct knowledge of their forms. The forms of the things are revealed to us only by our empirical and practical interaction with the things themselves. The knowledge of these forms is thus always fallible, revisable and perfectible, since it can be acquired only indirectly by means of analyzing the contents of imagination, but it is nevertheless this empirical and practical interaction that renders a clearer form knowledge possible.

VI. Actio cogitationem sequitur

The above considerations shed some light on the nature of the difficulties encountered by Pragmatism in all its variations: Pragmatism – as well as his vice Empiricism – cannot explain nor can it justify why the results of reflection have this peculiar universally normative validity. This is so because Pragmatism subordinates thinking to acting and regards knowledge as the result of the subsequent reflection upon the perception of the results of actions. The attempt to circumnavigate this obstacle by declaring language as part of every practice (establishing thus a relationship of

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[19] Immanuel Kant, *Grundlegung zur Metaphysik der Sitten*, in *Werkausgabe* Bd. VII (Frankfurt: Suhrkamp, 1982), BA 14.

[20] Simone Weil, *L'enracinement – Prélude à une déclaration des devoirs envers l'être humain* (Paris: Gallimard, 1949).

immediateness between language and world and deriving thinking from speaking[21]) only shifts the problem to the explanation of the universal validity of linguistic expressions.

Using the terms of the platonic model of the soul, Pragmatism's error consists in the circumstance that it regards the "second part of the human soul"[22, 23] the θυμοειδές, as being prior to the "first part", the λογιστικόν (we will translate here λογιστικόν as "intellect" and θυμοειδές as "spontaneity"). However, both Plato and Aristotle, as well as the entire philosophical tradition in their succession, emphasize that spontaneity cannot act without guidance from the intellect and that both instances of the soul form a partial unit. In the platonic model, this partial unit builds a pole that opposes the other pole of the soul, its "desiring part" (ἐπιθυμητικόν), with spontaneity, acting also as a sort of mediator or "interface" between the intellect and the desiring part. According to Plato, the soul is a hierarchically structured, but consistent entity with its three parts being its constitutive and inseparable aspects. At the top of this hierarchy is the intellect that on the one hand is subject to the demands of the desiring part via the mediation of spontaneity, but is, on the other hand, in position to resist these demands by its reasoning power that is based on true knowledge, and also (if its reasoning power is strong enough) to prevail against them with the aid of spontaneity. Acting itself, the real and actual manifestation of spontaneity, is thus always guided by thinking – the activity of the intellect – even if this thinking is sometimes not strong enough to achieve the necessary degree of true knowledge or to defy the force exerted by the desires.

Aristotle's criticism of this model is that it related spontaneity only indirectly to the human form, namely via the cognitive activity of the intellect, rendering thus the ontic relationship between soul and form diffuse – this holds also for the souls of every animate being. His soul model regards the soul not only as the motor of the individual activity of every living being, but also as the factor, which allows the form to unfold its form causal capacity: soul and form of a living thing make up a unit. This means for the human soul that both the activity of intellect and the manifestation of spontaneity realize jointly the human form. Since, however, the contribution of the intellect to the realization of the human form is not only passive (by providing knowledge gained from the analysis of the imagination-picture), but also active, by utilizing its immediate knowledge of the human form, spontaneity is always informed and guided by this knowledge.

Despite their particular differences both models of the soul agree on the claim

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[21] Paul Lorenzen, *Lehrbuch der Konstruktiven Wissenschaftstheorie* (Mannheim a.o.: Bibliographisches Institut, 1987), 9. Here Lorenzen defines thinking as "imagined speaking".

[22] Plato, *Politeia*, 441b.

[23] The soul of the animals has according to Plato only two "parts": a desiring and a conative (Plato, *Politeia*, 441b). Plants on the other hand, manifest the fundamental vital force that directly transforms inanimate to animate matter (Plato, *Timaios*, 77b).

that without the guidance by the knowledge of the human form, every merely empirically sustained reflexive analysis of a world dominated by spontaneous activity cannot overcome contingency and is at the mercy of an insurmountable fundamental skepticism. The acceptance of the primate of conscious and cognitive thinking over acting does not imply, however, that knowledge is infallible. It provides nevertheless the standard for the recognition and the correction of errors so that not only every single human in the course of his or her life, but also humanity in its historical totality is able to gain a progressively clearer and more distinct idea of itself.

Paraphrasing a legendary allegory, we can say that the immediate knowledge of the human form by means of the thinking activity of the intellect is the Light of Truth, at which only few of us can directly gaze, but that enables the shadow in front of us, in which everyone can recognize the contours of Man.

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Alchemy and Creation in the Work of Albertus Magnus

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Abstract

Albertus Magnus' alchemy is a subject that has attracted the attention of scholars since the early decades of the 20th century. Yet, the research that has been conducted this far is characterised by its non philosophical character. As a matter of fact, the previous studies approached Albertus' alchemy either in terms of history of science or of intellectual history. In this paper, I focus on Albertus' definition of alchemical transmutation that is found in his De mineralibus and I analyze it in terms of his theory of creation and of his theory of matter. Therefore, I show whether a re-creation of a metal is in accordance with Albertus' philosophy and congruently, I bring forth the Aristotle Graecus and the Aristotle Latinus that are found as background in his alchemical theory of transmutation. Ultimately, this paper aims at showing that the aforementioned theory is not an arbitrary statement from Albertus' part, but the result of a serious philosophical endeavour.

Key-words: *alchemy; theory of matter; creation; transmutation; Albertus Magnus*

I. Introduction

Albertus Magnus (ca 1193-1280) was an eminent philosophical personage of the 13th century, whose writings included many diverse fields such as philosophy, theology, zoology, botany etc. As a result, his prowess was acknowledged and highly exalted by posterity and therefore the appellation *doctor universalis* was justly bestowed upon him. However, Albertus demonstrated an innovative attitude towards knowledge as he delved into fringe areas of thought, such as alchemy, magic and astrology, each of which fostered quite a respectable proliferation of pseudo works – mostly between the 15th and 16th

centuries – that bore his name.[1] The above facts portray Albertus Magnus as a notorious and rather enigmatic thinker, provided that one may find in his work the 'legitimate' *scientiae* entwined with the 'illegitimate' *artes occultae*, therefore the veil of obscurity must first be lifted in order to fathom his thought.

With respect to this paper, I have to admit that it owes its inspiration to William Newman and his work about the fervent alchemical debate that broke out during the 13th century.[2] In that debate, Albertus had promulgated the theory that an alchemical transmutation was possible by reducing a metal to its prime matter and inducing a new specific form. Following this line of thinking, this paper intends to complement Newman's paper by shedding light on the relation between Albertus' theory of alchemical transmutation and his philosophy. In order to do so, in the first part of my paper I give an historical account of the debate, which culminates in depicting and adducing Albertus' alchemical excerpts from his *De mineralibus* that shows his view upon the matter. Consequently, I comment on these excerpts in terms of creation and of his theory of matter. In the second part, I show how and why Albertus denies an alchemical *creatio ex nihilo* and afterwards, I adduce the basic elements of Albertus's theory of creation, whereas in the last part, I explicate how he justifies such a transmutation. Finally, in terms of methodology, I mostly follow the inductive method, for the scrutiny of specific Albertinian excerpts will allow us to articulate general inferences.

II. Historical account of the debate

It was in February of 1144 when the Medieval Latin West encountered an alchemical work for the first time. Robert of Chester translated the *De compositione alchimiae* from Arabic, a work which deals with the initiation of Khalid Ibn Yazid into the secrets of alchemy by the Byzantine monk Morienus.[3] Afterwards,

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[1] For more on the subject see Pearl Kibre, "Alchemical Writings ascribed to Albertus Magnus", *Speculum* 17 (1942): 499-518; Pearl Kibre, "An Alchemical Tract attributed to Albertus Magnus", *Isis* 35 (1944): 303-316; Pearl Kibre, "Albertus Magnus, De Occultis Nature", *Osiris* 13 (1958): 157-183; Pearl Kibre, "Further Manuscripts Containing Alchemical Tracts attributed to Albertus Magnus", *Speculum* 34 (1959): 238-247; Pearl Kibre, "The Alkimia Minor Ascribed to Albertus Magnus", *Isis* 32 (1940): 267-300; Peter Grund, "ffor to make Azure as Albert biddes: Medieval English Alchemical Writings in the Pseudo-Albertan Tradition", *Ambix* 53, no. 1 (2006): 21-42 and Peter Grund, "Textual Alchemy: The Transformation of Pseudo-Albertus Magnus's *Semita Recta* into the *Mirror of lights*", *Ambix* 56, no. 3 (2009): 202-225.

[2] With respect to the debate see William Newman, "Technology and Alchemical Debate in the Late Middle Ages", *Isis* 80, no. 3 (1989): 423-445, and William R. Newman, *Promethean Ambitions: Alchemy and the Quest to Perfect Nature* (Chicago and London: The University of Chicago Press, 2004), 34-76.

[3] Lawrence M. Principe, *The Secrets of Alchemy* (Chicago: The University of Chicago Press, 2013), 51-52.

a great deal of alchemical translations followed, all of which contributed in a decisive way to the spread of the art. This proliferation seemed to have had a significant impact on the reconsideration of the place of alchemy within the very scheme of classification of the medieval sciences. In particular, during the 13th century, alchemy was recognised as a mechanical art by a variety of scholars such as Vincent of Beauvais (1190-1264), Thomas Aquinas (1225-1274) and Roger Bacon (ca 1214-1292). The first, in his *Speculum naturale,* regarded alchemy as a practical science, which should be studied in reference to mineralogy.[4] Likewise, Thomas classified alchemy with medicine and moral philosophy under the label of 'operative' sciences, whereas in other parts of his work he subordinated alchemy, agriculture and medicine to physics under the label of 'mechanical' arts.[5] Finally, Roger Bacon envisioned alchemy as a crucial part of his *scientia experimentalis*, which could bring about moral purification and prolongation of human life, thus alchemy could turn out to be a valuable weapon in the imminent fight against the advent of the Antichrist.[6]

No matter how promising alchemy's reception may have seemed, it never really basked in the warm embrace of a university agenda. The reasons for such stagnation are too many to relate, but one may dwell on a couple whose impact was the most important. At first, one should take into account the *Didascalicon* of Hugh of Saint Victor (1096-1141), a text whose authoritative power exerted significant influence on the way the medieval scholars conceived the notion of mechanical arts. According to the *Didascalicon,* the word 'mechanical' derived from the Greek word μοιχεία which means 'adultery' and thus the word 'mechanical' was coloured with pejorative connotations ever since.[7] Therefore, it is now easier to see how difficult it was for alchemy to overcome the obstacles of authority and demolish its barriers which held strong for at least a couple of centuries. The second factor has to do with the intellectual environment in which alchemy underwent the first steps of its development. Apart from the alchemical translations, the influx of the Arabic texts endowed the Latin West with a large number of magical and astrological texts which shared much common ground with several alchemical doctrines. As a result, it did not take long for alchemy to get attached to "illicit" kinds of knowledge, which in turn were characterised as

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[4] Lynn Thorndike, *A History of Magic and Experimental Science, vol.II* (New York: Columbia University Press, 1923), 471.

[5] Newman, "Technology and Alchemical Debate in the Late Middle Ages", 426.

[6] W. Newman, "An Overview of Roger Bacon's Alchemy", in *Roger Bacon and the Sciences: Commemorative Essays*, ed. Jeremiah Hackett (Leiden: Brill, 1997), 317-336.

[7] Elspeth Whitney, "The Mechanical Arts in the Context of Twelfth- and Thirteenth-Century Thought" (PhD diss., New York University, 1985), 124-128 and 153-154.

heretical by the Church.[8] Alchemy's instant reaction was to go 'underground' and adopt a more clandestine identity in order to protect itself from any future papal decrees and threats deriving from the Church.[9]

Yet, even if alchemy did not succeed in acquiring a university status, it managed to monopolize the interest of the scholarly community through a fervent debate on alchemical transmutation which lasted until the 14th century. All started in 1200 when Alfred of Sareshal added the Avicennian *De congelatione et conglutinatione lapidum* in the end of the Latin translation of Aristotle's *Metereologica*.[10] Consequently, the *De congelatione* was passed as an authentic Aristotelian text which contained a rich arsenal of arguments against the notion of alchemical transmutation and soon enough the Avicennian text became the 'gospel' of the adversaries of alchemy. Among others, the *De congelatione* comprised two basic doctrines which promulgated the impossibility of alchemical transmutation. According to these doctrines a transmutation was not possible due to two reasons: a) nature is superior to art and therefore the latter cannot surpass the former and b) the true characteristics of the metal which determine its species cannot be known since they subsist beneath the level of the senses. As a result, the alchemists cannot manipulate something that they do not actually fathom.[11]

The aforementioned text was circulated under the expression *Sciant artifices*, which was the incipient script of the text. It was in that debate that Albertus Magnus took part and articulated his opinion on the matter in his *De mineralibus*, which was written approximately in 1260. In the ninth chapter of the third Book of the *De mineralibus*, Albertus describes his theory of transmutation, according to which:

> "On the basis of all the foregoing arguments, we are now able to consider the truth of the statement which some ascribe to Aristotle, although in truth it was made by Avicenna...And for this reason, he himself adds that 'specific forms' are not transmuted, unless perhaps they are first reduced to prime matter – the matter of the metals – and then with the help of art, developed into the specific form of the metal they

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[8] Michael D. Bailey, *Magic and Superstition in Europe: A Concise History from Antiquity to the Present* (Lanham: Rowman and Littlefield Publishers, 2007), 116-119.

[9] In the 14th century the Church adopted a more aggressive stance towards alchemy. The Pope John XXII promulgated in 1317 his decretal *Spondent quas non exhibent*, in which he denounced alchemy for promising things it cannot deliver. The stance of the Church culminated in Nicholas Eymerich and his *Contra alchymistas* (1396), in which we meet a severe opposition against alchemy too [William Newman, "Medieval Alchemy", in *The Cambridge History of Science Volume 2: Medieval Science*, ed. David C. Lindberg and Michael H. Shank (New York: The Cambridge University Press, 2013), 397].

[10] James K. Otte, "The Life and Writings of Alfredus Anglicus", *Viator* 3 (1972): 283.

[11] Newman, "Technology and Alchemical Debate in the Late Middle Ages", 427-428.

want."[12]

As one may deduce, Albertus argues in favour of the alchemical transmutation and the obvious question is whether the statement above is in agreement with his philosophical theory of matter and of creation. Therefore, I will deal with these two subjects in the following chapters.

III. Negative transmutation: Avoiding a *creatio ex nihilo*

Before I proceed with the analysis of the excerpt above, two facts should be born in mind: a) Aristotle did not write anything on alchemy. However, during Albertus' time one may take into account the pseudo-Aristotelian *Secretum secretorum* whose influence and circulation were more than apparent.[13] Therefore, b) there was an overall conviction that Aristotle is actually likely to have dealt with alchemy and, in order to justify such a conviction, Albertus drew heavily on Aristotle Graecus and Aristotle Latinus, that is, the *Liber de causis*.

In the very beginning, Albertus asserts that 'the specific forms of the metals are not transmuted', a statement which implies that perhaps he wanted to avoid problems which are connected with a *de facto creatio ex nihilo* via alchemy. In particular, Albertus found himself in a similar position when he was commenting on the second Book of the *Setences* of Peter Lombard (ca 1096-1160) and he was dealing with the question of 'whether demons can induce new substantial forms in transmuted bodies'. This question was the result of a passage from the *Exodus* according to which Aaron and Moses were found in a contest against the Magi of Pharaoh. The latter transmuted their wooden staffs into serpents with the aid of demonic magical arts and, therefore, one could claim that demons could be regarded as creators, as well. Albertus tackled this question by stressing that a transmutation of that kind was illusory and not substantial. Consequently, he used the *Sciant artifices* in order to justify the demonic performance as an act of art. Particularly, he adduced:

> "Likewise, art does not transmute a substantial form into [another substantial] form, because Aristotle says in Meteorology IV that "the ar-

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[12] Albertus Magnus, *The Book of Minerals*, trans. Dorothy Wyckoff (Oxford: Clarendon Press, 1967), 177-178: Albertus Magnus, *De mineralibus*, ed. by A. Borgnet, lib. III, caput 9, tr.1: "Haec enim est sententia Avicennae, quam dicit esse Hastem philosophi praecipui in naturis et in mathematicis: tamen Avicenna in Alchimia sua dicit, quod contradictionem eorum qui in alchimicis de permutatione metallorum contradixerunt, invenit: propter quod et ipse subjungit, quod non permutantur species, nisi forte in primam materiam et in materiam metallorum reducantur, et sic juvamine artis deducantur in speciem metalli quod voluerunt."

[13] Steven Williams, "The Pseudo-Aristotelian *Secret of Secrets* as a Didactic Text", in *What Nature Does Not Teach: Didactic Literature in the Medieval and Early-Modern Periods*, ed. Juanita Feros Ruys (Turnhout: Brepols Publishers, 2008), 53.

tificers of alchemy should know that species cannot be transmuted"; therefore demons cannot [transmute them], because they work only by means of art."[14]

From the excerpt above it becomes obvious that Albertus managed to avoid the problem of demonic creation by reducing the act of transmutation to alchemy and therefore to art. As a result, demons cannot be regarded as creators since their acts cannot be seen under the category of genuine creation. Nevertheless, let us now precede with Albertus' doctrine of creation, so as to understand more fully the doctrine of alchemical transmutation that will follow.

According to Albertus and his *Liber de causis et processu universitatis*:

"The first in all things is "a being" which is necessary ex nihilo, since it presupposes nothing conceptually prior to it. And for this reason, in all things in which it is, it is necessary that it come to be through creation. For, what comes to be ex nihilo comes to be through creation."[15]

Up to this point, Albertus has provided us with the first thing created by God which is 'a being', a notion that is often equated to the notion of abstract matter.[16] However, in the past years Thérèse Bonin has convincingly showed that Albertus refers to the first created thing either as 'being' or as 'intelligence' and therefore this first created thing was regarded by Albertus as the 'concept' of being taken by itself.[17] Apart from this notion, however, Albertus realised that the term "intelligence" did not only designate a 'concept' but also a celestial intelligence provided that it was the first and most perfect recipient of created being.[18] This last interpretation is of great value to us, since it can be applied to Albertus' alchemical transmutation and its influences by the celestial bodies.

This short account on Albertus' theory of creation helps us follow his theory of the production of metals, since the last interpretation of intelligence seems to

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[14] Albertus Magnus, *Commentarii in II Sententiarum*, ed. A. Borgnet, dist. VII, F, art. VIII: "Item, Ars non transmutat a forma substantiali in formam: quia dicit Aristoteles in IV Meteororum: Sciant artifices alchimiae species transmutari non posse: ergo nec daemones, quia ipsi non operantur nisi per modum artis."

[15] Isabelle Moulin and David Twetten, "Causality and Emanation in Albert", in *A Companion to Albert the Great: Theology, Philosophy and the Sciences*, ed. Irven M. Resnick (Leiden-Boston: Brill, 2013), 703.

[16] For a thorough description of 'being' as the 'first created' look: Térèse Bonin, *Creation as Emanation: The Origin of Diversity in Albert the Great's On the Causes and Procession of the Universe* (Indiana: University of Notre Dame Press, 2001), 40-51.

[17] Térèse Bonin, "Albert's De Causis and the Creation of Being", in *A Companion to Albert the Great: Theology, Philosophy and the Sciences*, ed. Irven M. Resnick (Leiden-Boston: Brill, 2013), 692-693.

[18] Ibid., 694.

be reiterated in the latter. In the third book of his *De mineralibus* Albertus states:

> "So undoubtedly there is a formative power in nature, poured into the stars of heaven, and this [power] guides towards a specific form the heat that digests the material of metals. For as we have said elsewhere, this heat has its right direction and formative power from the Moving Intelligence, and its efficacy from the light and heat emanating from the light starry sphere and from the power that separates things that are alike from things that are different, [that is] the power of Fire."[19]

Now, in order to understand the creation of metals, we must examine two profound notions, that of *vis formativa* and of *lumen*. In respect to the formative power, Albertus says that it should be seen as 'an artificer in the artifact' since it carries and conveys all the necessary information for the metal to be constructed. This formative power consists of three other powers, which are that of the mover of the spheres, that of the moved spheres themselves and that of the elements.[20] However, this formative power is directed towards the metals by a light emanating from the Moving Intelligence. In this point, Albertus again draws from the *Liber de causis* and Aristotle Latinus so as to portray a sort of creation as emanation. In particular, in Albertus' metaphysics, *lumen* is deemed as an emanative factor that secures unity and communication among the intelligences, the celestial spheres and the natural sub-lunar world. For example, it is due to the emanation of *lumen* that the First Intelligence understands itself and constitutes the Second intelligence and, by following this line of thinking, one may grasp how the levels and different grades of intelligences are formed and determined.[21]

In conclusion to this chapter, one may say that we were able to follow how Albertus avoided, even implicitly, connecting the notion of transmutation to that of *creatio ex nihilo*, whereas we also saw how the creation of metals was linked to basic notions and doctrines of the theory of creation of Albertus Magnus. Consequently, the next thing to examine is the possibility of the transmutation of metals and its accordance with Albertus' philosophy.

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[19] Albertus Magnus, *The Book of Minerals*, 166-167; Albertus Magnus, *De mineralibus*, ed. A. Borgnet, lib. III, caput 5, tr.1: "...ita procul dubio virtus formativa in natura est et stellis et coelo influxa, quae ad speciem dirigit calidum digerens materiam metallic: sicut enim et in aliis dictum est, calidum hoc habet rectitudinem et virtutem formalem ex intellectu movente et efficaciam ex virtute luminis et calidi quod causatur ex lumine stellarum et orbis, et virtute segregandi homogenia ab eterogeniis per virtutem ignis."

[20] Adam Takahasi, "Nature, Formative Power and Intellect in the Natural Philosophy of Albert the Great", *Early Science and Medicine* 13 (2008): 456-458.

[21] Moulin and Twetten, 700-702.

IV. Positive transmutation: Justifying a 're-creation' of metals

Finally, we are now able to go into the theory of transmutation of Albertus Magnus, who clearly states that a transmutation may occur "unless perhaps they (metals) are first reduced to prime matter – the matter of the metals – and then with the help of art, developed into the specific form of the metal they want". In the first place, one may notice that Albertus is somehow reluctant to admit the certainty of the alchemical process of transmutation and this has mostly to do with the inefficiency of art. Albertus accepts that heat is the key element not only to reduce a metal to its prime matter but also to transmute it into another one, but still he thinks that art may fall short in regards to the prerequisite heat. Therefore he stresses:

> "And these powers are the operations of intelligences which do not make mistakes – unless by some accident, for instance because of the uneven qualities of the material. But in the art of alchemy there is nothing of this, but only the miserable assistance of skill and fire."[22]

Yet, despite Albertus' cautious stance towards alchemy, he provides us with enough data throughout his corpus to allow us to synthesize Aristotle alchemicus, an alchemical theory of transmutation which is entrenched in Aristotelian doctrines. First of all, it is in the *De mineralibus* again that one may find Albertus' positive affirmation of the possibility of transmutation, which relies on the Aristotelian elemental theory that exists in the *De generatione et corruptio*.[23] According to his words:

> "We know from what has been determined in the science of Generation and Corruption, that among [things] having a common property in their material, powers and potentialities, the transmutation of anyone into another is easy...Therefore, it happens that the materials that are closest to the elements are transmuted into each other; and since such transmutation of the elements occurs, the metals must be capable of being transmuted into each other. And thus it happens that the production of metals is cyclical, from each other. Experience shows that this

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[22] Albertus Magnus, *The Book of Minerals*, 17; Albertus Magnus, *De mineralibus*, ed. by A. Borgnet, lib. I, caput 3, tr. 1: "...et illae virtutes sunt intelligentiarum operations, quae non errant nisi per accidens, ex inaequalitate scilicet materiae. In arte autem nihil est horum , sed potius mendicata suffragia ingenii et ignis."

[23] The elemental theory of Aristotle rendered itself as the basis of the sulphur-mercury metallic theory of alchemy. According to it all metals are propounds of proportions between sulphur and mercury, which in turn stem from the four Aristotelian elements. For more see: Jost Weyer, "Die Alchemie im lateinischen Mittelalter", *Chemie in unserer Zeit* 1 (1989): 16-23.

is the case, both in operations of nature and in techniques of art. As to natural processes, I have learned, by what I have seen with my own eyes, that a vein flowing from a single source was in one part gold, and in another silver having a stony calx mixed with it."[24]

However, in order to perform a transmutation, one needs to reduce a metal to its prime matter and, therefore, a new problem emerges which has to do with the metaphysics of the transmutation. To clarify this, one must investigate whether there is any link to Albertus' theory of matter[25], since one still needs to justify how a new form of a metal could occur. By delving into Albertus' *Physics*, one may find satisfactory evidence that supports the possibility of transmutation and of the emergence of another form.[26] In reference to the theory of matter of Albertus, matter should be regarded as a composition of privations, which are aptitudes for forms, beginnings of forms or imperfect forms. The notion of privation and its application to the alchemical theory of transmutation can be better conceived if we explain it in terms of a 'flowing form'. As we have already said, matter is a composite of privations, which are in turn imperfect or potential forms. Now, it is due to privation that matter renders itself capable of acquiring and gaining an actual form, since privation pre-contains, in a sense, the desired form. So, in terms of motion and flowing form, when something is becoming white, it must in some sense be already in a way white during the process of becoming white.[27] Likewise, during an alchemical transmutation, when a metal is reduced to its prime matter, it is due to privation and its aptitude for forms that a new metal may be formed or rather generated. Moreover, this account of privation secures in a way the fact, that during the procedure of transmutation,

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[24] Albertus Magnus, *The Book of Minerals*, 200; Albertus Magnus, *De mineralibus*, ed. by A. Borgnet, lib. III, caput 6, tr.2: "Contingit igitur materias proximas elementorum ad invicem transmutari, quae transmutata necesse est ipsa ad invicem esse transmutabilia. Per hunc igitur modum contingit circularem esse ex se invicem metallorum generationem. Probant hoc autem experta tam in naturae operibus quam in artis solertia. In naturae enim operibus visu proprio didici, quod ab una origine vena fluens in quadam parte aurum fuit purum, et in alia parte argentum habens sibi admixtam calcem lapideam."

[25] For a general account on the subject of medieval matter see Robert P. Multhauf, "The Science of Matter", in *Science in the Middle Ages*, ed. David C. Lindberg (Chicago: The University of Chicago Press, 1978), 369-390. For Albertus Magnus' theory of Matter (general introduction from all his works) see Paul Hossfeld, "Erste Materie und Materie im allgemeinen in den Werken des albertus Magnus", in *Albertus Magnus – Doctor Universalis 1280/1980*, ed. Gerbert Meyer and Albert Zimmermann (Mainz: Mathias Gruenewald Verlag, 1980), 205-234.

[26] Albertus conflates the Latin 'species' with that of 'forma'. Such a conflation is permissible within the realms of Aristotelian philosophy, even though it raises great problems in terms of relation between species and genus.

[27] David Twetten, Steven Baldner, and Steven C. Snyder, "Albert's Physics", in *A Companion to Albert the Great: Theology, Philosophy and the Sciences*, ed. Irven M. Resnick (Leiden-Boston: Brill, 2013), 176.

the imperfect forms of the metals exist in the matter and, therefore, we don't have an *ex nihilo creatio*. Going one step further, there is also another element in Albertus' theory of matter that allows the formation of a new metal. This is the 'form of corporeity' that enables matter to be quantified and divided.[28] Congruently, in another work of Albertus, the *De caelo*, the 'form of corporeity' is used so as to explicate the corruption of the terrestrial bodies in comparison to the immortality of the celestial ones.

Given the above, it seems that a sort of compatibility between the alchemical theory of transmutation and that of matter is accomplished. Yet, a transmutation cannot occur unless formative power is bestowed upon the new metal. In this point, we have a major problem, since formative power was a crucial element in the creation of metals, which namely derived from the First Intelligence. So, is it possible to 'capture' somehow this formative power and truly bestow a new form during the transmutation? Of course, Albertus was fully aware of this deficiency and, probably, of the difficulty of 'capturing' this formative power and, ultimately, it is perhaps due to this very reason that he had articulated his distrust of the efficiency of art. Nonetheless, Albertus provides us with an alternative solution to this problem by stating that the alchemists are performing their work during a crescent moon, because it is then that purer metals and stones are produced and the whole process is aided by the virtues of the celestial spheres.[29] Inevitably, Albertus links alchemy to astrology, for only then is the influence of the formative power possible.

V. Conclusion

As soon as alchemy entered the Latin West, it triggered a series of contradictions which veiled its practice and reception. On the one hand, alchemy met with the enthusiasm of eminent scholars and, on the other, the scorn and pejoration of others. Likewise, alchemy never gained university status, but yet it became the topic of a fervent debate. This contradictory factor may be seen in the alchemy of Albertus Magnus, as well. As we saw on the one hand, he articulates his cautiousness towards the effectiveness of alchemy and, on the other, he affirms the possibility of the transmutation of metals through a sort of generation. Yet, his theory of alchemical transmutation does not seem to be the result of an arbitrary act, since many elements of Aristotle Graecus and Aristotle Latinus are mixed in order to bring about an 'Aristotle alchemicus'. This 'Aristotle alchemicus', in turn, is in accordance with Albertus' doctrines of creation and his theory of matter, provided that elements of these doctrines are applied to, entwined with

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[28] Ibid., 179.

[29] Albert the Great, *On the Causes of the Properties of the Elements*, trans. Irven M. Resnick (Milwaukee: Marquette University Press, 2010), 67.

and, perhaps, implied in his alchemical theory. In particular, Albertus' emanative doctrine of creation plays a crucial role in the transmutation of metals, whereas the notion of privation and that of a 'form of corporeity' supply us with the appropriate tools for the re-generation and re-emergence of a metal.

Nonetheless, this paper should be regarded only as the fresh start of a large topic and surely there is much still to be done if one wants to reach any tangible and profound inferences. For instance, there are still many primary sources from Albertus' corpus to be examined, whereas one must also take into consideration his Arabic sources. Yet, despite the brevity of the account in this matter, I sincerely hope that the ideas conveyed in this paper will become the springboard to a future research.

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In Varietate Concordia: Two Perspectives on the European Values

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Abstract

In the first chapter of the paper we elaborate on the attitude towards the Other in the European Union by discussing two adversative yet simultaneous processes taking place in the EU. The first tendency is a legacy from the centuries-lasting model of European unification against certain important Others. The second one refers to the aspiration of the supra-national European project to encourage in an unprecedented manner the co-existence with the otherness. We argue that this ambivalence results from the fact that the transformation of the attitude towards the otherness takes place with different tempo in the different social spheres. In the second chapter we develop further the reflection on the EU attitude towards the Other by focusing on the East European Other. We discuss the normative and de facto application of the European values both in the West and in the East part of the continent. In the last chapter we articulate two separate discourses framing the European values. The first one refers to the essentialist approach looking for a metaphysical reasoning of their universality by developing the common culture, history and spirit rhetoric. The second reading of the European values presents them in a more postmodern and debatable way and offers a mechanism for reconciling the heterogenic East-West European society.

Key-words: *European Union; European values; European identity; Eastern Europeans; Others; post-national citizenship; universality*

I. Introduction

When reflecting on the European values our initial assumption will be that they have a constitutive meaning for the European Union (EU) and its borders. This position is in compliance with the statement of Olli Rehn who defined the EU borders not only as a geographical concept but also as marking the virtual community of states that are ready to share certain values. In his capacity of being the European Commissioner for Enlargement he stated: "...the borders are defined by the consciousness of the Europeans. Geografy demarcate the framework but fundamentally

– values outline the borders of Europe."[1]

Using as a point of departure the above-mentioned fundamental role of the shared moral regulative for the EU Member States the paper *aims* at examining the specificities of the process of consolidation around common European values of the so called "New Europe" and "Old Europe". In order to achieve this aim the article is thematically developed in three chapters.

On a theoretical level, the main questions that will lead and structure the proposed research encompass the character of the European values – are they a Western concept or do they come as a result of the common East-European and West-European efforts to identify with a supranational community? How East and West traditions and historical experiences meet with regard to the common values?

In *methodological* respect the research will apply interdisciplinary approach. The complicated and multilayer nature of the object of the analysis – European identity in relation to the European public sphere implies exploration on different levels and from various perspectives. That is why research techniques from different social sciences will be applied: the philosophical reflection (phenomenology and semiotics) will be combined with political analysis and historical deconstruction of the concepts.

II. Attitude towards the Other in the EU

The point of departure of the first chapter is the understanding that the opposition "we-they" can be traced back to the medieval projects of European unification which aimed at protection of the Christian world from the "Muslim enemy". Following this early antagonistic sample, the European idea was constructed around certain contradictions[2] – between Europe and Asia, Christianity and Islam, East and West, etc for many centuries. In this context the official politics towards difference in the EU manifested in its slogan "United in Diversity" presents a new paradigm – the European identity as a supranational project implies a new type of perception and openness for coexistence with and recognition of the difference of the others.

Thus if the traditional premodern society *does not allow* authentic communication with the alien and in order to become open to the Other the individual had to break his/her connection with the community as the only real world, that controls his/her perception and relationship with the different agents, modernity *allows* the individual to overcome the collective prejudices and to encounter the Other without the need for a dramatical escape from the socium. EU, in its turn, comes with the ambition to create

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[1] Olli Rehn, "Europe is defined by its values, not by its borders", *European Institute Official page*, 2005, http://www.europe.bg/htmls/page.php?id=1535&category=223 [Оли Рен, "Ценностите определят Европа, а не границите", Официална страница на Европейски институт, 2005] (In Bulgarian).

[2] One could go back even further to the Hellenes who perceived themselves as "western" as opposed the the "eastern" world of Persia, Egypt, Babylon, etc., this way lying the foundations for the future sense of belonging to a common European civilization.

such a social and political context so that citizens are *encouraged* to participate in multicultural interaction.

However, Guild's investigation of the legal aspects of the European identity and more specifically of the restricted policy towards immigrants in the Union demostrates how the "other" in terms of the immigrant delimits the officially proclaimed recognition of the diversity in the Community.

Before going into details it is interesting to introduce at this point of the research the differentiation between two types of integration proposed by Habermas in his book *The Postnational Constellation*.[3] The first is the "functional" one – it realizes a horizontal relation of exchanging and circulation of goods, information, people etc. with the purpose of achieving certain pragmatic results. Characteristic for this type of integration is that the others are not anymore aliens (like in the premodern times) but they are still perceived anonymously.

Completely different is the concept behind the second type of integration Habermas discusses. According to him, the "social integration" is possible because of the intersubjective sharing of common values and norms and it posses existential density, that comes from the common collective identity of the members of the particular group. When designing policies promoting common identity and shared values construction the European project aims to provide such an existential meaning of the integration in the Community – from the functional exchange (of capitals, goods, people, information) in the economic and political sphere to the authentic organic (non mechanical) solidarity and interaction between the European citizens. Habermas states that succession of these two models of integration can be observed on the Old Continent since the Late Medieval Times.

The German philosopher concludes that the recognition of the "Others in their difference" could be one of the key aspects of the European identity.[4] This would be a model identity construction that does not ignore or assimilate the aliens but respects their difference and shapes ones self-identification in a constant dialogue with the Others.

After presenting the two levels of integration we can come back to Guild's analysis of the relation "we- the others" in the context of the normative documents of the EU and observe their legal implication.[5] Discussing the legal aspects of the European identity, she argues that giving a legal status of the immigrants in the EU in the mid 1990s of XXth century transformed them into citizens of the Union. This in its essence was an

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[3] Jurgen Habermas, *The Postnational Constellation*. *Political Essays* (Sofia: Kritika I Humanism, 2004), 122-123 [Юрген Хабермас, Постнанционалната констелация. София: Критика и Хуманизъм, 2004] (in Bulgarian).

[4] Jurgen Habermas and Jacque Derrida, "Feb. 15, or, What Binds Europeans Together: Plea for a Common Foreign Policy, Beginning in Core Europe", in *Old Europe, New Europe, Core Europe: Transatlantic Relations After the Iraq War,* ed. D. Levy, M. Pensky and J. Torpey (London: Verso, 2005), 9.

[5] Elspeth Guild, *The Legal Elements of the European Identity. Citizenship and Migration Law* (The Hague: Kluwer Law International, 2004), 82-94.

act of transforming the otherness into ourness. Eliminating the differences between the immigrants, the citizens of other member-states and the citizens of the host country there is no need to apply strategies for integrating the difference within the "our" space.

According to Guild, the acceptance of the difference at the EU level is not yet a universal norm but it is rather limited to respect towards diversity *in the framework of the European space* (thus excluding the non-European other). One can notice implicit understanding of the other as a dangerous one standing behind certain EU provisions. She states that the EU integration concept that motivates the "integration tests" for foreigners has the purpose to provide indications to what degree foreign citizens are "civilized". This way certain vision of society tends to dominate any other possible definitions of its organization. Such an approach aspires for "domestication" of the difference so that it becomes "ourness" before it is accepted.

From this perspective Guild differentiates three levels on which the "otherness" is perceived within the EU – (1) the "other" citizen of the West European countries that remained out of the EU, (2) the East European "other" and (3) the "others" coming from the "developing world". According to her, the representatives of Norway, Liechteinstein and Swizerland are not treated as "others" but as "a little bit unsuccessful EU citizens". The reason for this is becase in these countries either the population refused to become part of the union through a referendum or such did not take place as the result of it would have been negative. The second group is the one with immigrants from Turkey, Central and Eastern Europe. While there are more restrictions for them than for the representatives of the first one, it is still more favoured than the last group with the representatives of the "Third world".

The gradual transformation to more accepting attitude towards the difference within the EU could be observed through the legal term "discrimination" and some limitations of the anti-discrimination policy of the EU. Guild claims that although it is not directly stated, from the EU visa policy one can conclude that there is a discriminatory approach on the basis of race and religion. Other researchers express even more radical arguments for the EU openness towards foreign citizens. For example, Amin assume that "the non-white residents and citizens of the EU have no relation to the *Idea for Europe*", which remains a unification ideal, based on the Christianity and Englightment, that aims at bridging the diversity of the European National cultures.[6]

However, from the perspective of a wider historical context it becomes apparent that the above-mentioned negative limitations refer to separate periods of the development of the Community policy and are not representative for the EU as a whole. Despite the critics of Guild, Amin and other researches towards the EU anti-discrimination politics, it has to be noted that the transformation in the attitude towards the different cannot be expected to come as a result of a single decision as it is a process that takes

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[6] Ash Amin, "Immigrants, Cosmopolitans and the Idea of Europe", in *Interlocking Dimensions of European Integration. One Europe or Several?,* ed. H. Wallace, 280-301 (Basingtoke: Palgrave, 2001).

time. The struggle against discrimination was legally regulated (although in a very narrow way) already in 1957 in the Treaty of Rome and it has had to walk its way to June 2000 when the Council Directive 2000/43/EC was adopted implementing the principle of equal treatment between persons irrespective of racial or ethnic origin. The case with the preparation of the anti-discrimination law in the EU demonstrates that the speed of changes in the various social spheres is different. Several decades passed before the *legal reglamentation* of the acceptance of the other became possible in the Law. But the transformation of the *collective consciousness* towards otherness takes place at even slower speed and hence some forms of discrimination still remain a part of the cultural sphere and a fact of the everyday life of the European citizens. The latter will be demonstrated in the next chapter of the article.

III. East-West reflections on the European values

The second chapter develops further the reflection on the EU attitude towards the Others by focusing on the East European Other. It explores the two-fold relation between European values and East Europe. On the one hand, it discusses the distinction "we-they" perceived by some "old" Europeans towards the "new" Europeans. On the other hand, it articulates the possibility to consolidate the different cultural traditions of the member states around common values. More particularly, the way East and West Europeans meet when discussing common moral norms is analysed in the chapter.

The negative stereotyping of the East Europeans practiced by political subjects in the "Old" Europe puts at danger fundamental European values and rights. There is substantial literature on the subject of the production of negative images of East Europe and the Balkans as a specific region in the South-East Europe (for example, Maria Todorova's *Imagining the Balkans*). Although this is a very important area for research it is not the main object of our analysis and that is why here we will mention only one concrete case as it had a clear response from the European values perspective. In February 2012 the right-wing Dutch Freedom Party started a website inviting Dutch citizens to report against East European nationals who cause pollution, problems related to housing or simply competition on the job market.

Importantly, the website stereotyping in a negative manner Eastern Europeans was confronted with the common values and principles rethoric by the major polical parties in the EP. For example, Guy Verhofstadt, President of the Alliance of Liberals and Democrats for Europe Group and the leaders of two political parties from the Netherlands issued a joint statement that condemns the Dutch website and demands its "immediate closure". "The website, as stated by commissioner Reding, goes against all European values of dignity and liberty. Furthermore it risks destroying the very basis of the Union, which is non-discrimination and free movement."[7]

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[7] Euractive, "EU slams Dutch website for instigating intolerance", (2012), https://www.euractiv.com/section/languages-culture/news/eu-slams-dutch-website-for-instigating-intolerance/.

The website producing negative stereotypes suggests that European values are still in the normative EU realm and not yet always applied in the everyday practice in the Member States. It is an indication that the European model is uncertain if the mentality of European citizens allows stigmatization, discrimination or exclusion of whole groups of people from "its" European society. It is worth mentioning that the initiative turning Eastern nationals into second-class citizens happened in the Netherlands – one of the six founders of the European Coal and Steel Community who in 1950 united economically and politically in order to end violence between neighbours and to secure lasting peace. Therefore, it could be assumed that in the Western as well as in the Eastern part of Europe the understanding and application of the democratic values and EU principles is an ongoing process.

There are also particular cases illustrating the dynamics of the diffusion of ideas between the EU level and the local structures. Such points of resistance and even conflict can be observed between Christian, Muslim and secular cultural traditions, but also within the Christian world itself that was among the first factors giving birth to the European idea. After the introduction of the High Representative of the Union for Foreign Affairs, EU has had to unify over a common foreign and security policy, which often requires decisions over moral dilemmas. In this regard, Cathleen Kantner argues that shared values are the necessary common ground for consensus and solidarity in areas such as social policy, security and defence, immigration, internal security etc. where national diversity clashes with European ambitions.[8]

She illustrates the importance of the shared values for the European governance in an ethically sensitive policy field like *Foreign and Defence Policy* by reminding the dissimilar perception of the US-led intervention in Iraq in 2003 in the EU Member states. Kartner summarises that regardless of the fact that public opinion across Europe was clearly against the war European institutions could not speak with one voice: "A deep – identity-related – split between (most of the) old and (some of the) new members seemed to emerge. (...) ... in countries like Poland strong moral arguments in favour of the intervention were put forward by politicians and even civil society actors. In Germany such a position was almost unthinkable. This illustrates that national views on foreign policy, especially questions of war and peace, are deeply shaped by collective experiences."[9]

And while this discrepancy between the official EU attitude towards certain values and their response in the domestic cultural settings can be observed in each of the Member states, some researchers focus their attention on the applicability of the European values in "New Europe" in particular.

For example, Harmstone argues that as a result of the transition from "communist"

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[8] Cathleen Kantner, "Collective Identity as Shared Ethical Self-Understanding: The Case of the Emerging European Identity", in *European Journal of Social Theory* 9, no. 4 (2006): 501-523, 504.

[9] Ibid.

to "western" values the latter are perceived mainly instrumentally, "as the means to reach the desired goals" in Central Europe.[10] The challenge is that while European values are recognized as non-negotiable European standards, the representatives of the various member states have often different economic, political and cultural background and consequently readiness to apply them.

According to her in the 1970s and 1980s of the 20th century began the erosion of "communist" values system and its replacement by "western" values such as democracy and market economy. However, the new values have been perceived primarily instrumentally - as a means to achieve certain objectives. With the change in the environment during and after the transitional period, Harmstone distinguishes three types of mentality - "the good and obedient worker" who remains politically passive and economically routinized, the "thieving-begging" mentality of the seekers after personal profit, and the "autonomous-entreprising" mentality that is characteristic for socially productive individualists. According to the author, the latter type, unlike the first two is not a legacy of the previous regime and arose with the emergence of new experiences after the changes.[11]

For instance, the rule of law is a fundamental value of the Western European worldview and serves as a fundamental value for the European Community. According to her, although formally this principle is accepted, in practice in many Eastern countries who are already EU members, the law is understood instrumentally, and sometimes attempts can be observed to ignore or change it if inconsistent with national or personal interests. By contrast with this Eastern model, the western concept for the "rule of law" implies restrictions both regarding to those who are governed and those who are governing.

Nevertheless, she recognizes the possibility for a slow change of mentalities - the existence of the the third type itself demonstrates it. Harmstone concludes that there is possibility to create common ground between "Eastern" and "Western" experiences that would determine the success of the interiorization of the European values.

After the fall of the Iron Curtain a process of integrating Central and Eastern Europe in the Western European political and economic system has begun. However, the East-West equality can be questioned, since it occurs in a scheme where "West" is requesting, while the "East" has the obligation to fulfil the formal criteria for the EU membership. The introduction of the predicates "old" and "new" Europe referring respectively to the Western and Eastern Europe, is a dividing indicator differenciating these two areas. Even after they become members of the Eropean Union, the newly accessed countries are faced with the challenge of the debate on the "two-speed" Europe[12] that divides again

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[10] Teresa Rakowska-Harmstone, "Dynamics of Transition", in *New Europe. The Impact of the First Decade,* ed. Rakowska-Harmstone, Teresa, Piotr Dutkiewicz, and Agnieszka Orzelska (Warsaw: Collegium Civitas Press, 2006), 123.

[11] Ibid.

[12] According to Habermas already the existence of the Eurozone indicates that Europe is moving on different speeds. See J. Habermas, *The Divided West (Cambridge: Polity Press,* 2006), 52.

the continent not letting it to finally unite.

There has been a shift firstly in the academia and nowadays also within the EU institutions from the "two-speed" formula to the model of the "multi-speed" Europe. The multi-speed Europe would offer member states more freedom to form partial alliances and set policies when it is impossible reach a unanimous consensus in the EU. In this regard, the pathos of the Rome Declaration, signed by the leaders of 27 EU member states on 25 March 2017, is not already concerned with the deeper integration as much it is orientated towards the varied integration. The idea of a multi-speed Europe is perceived controversially in the EU – for some it has the potential to solve key issues like the migrant crisis or the European debt crisis as for others it would treaten the solidarity and unitedness among Europeans eventually leading to two separate Europes within the EU.

Koselleck's understanding of the historical transformations could provide a possible understanding of the "East-West" dissimilarities and European diversity as a whole. According to the German theorist of history on the level of the political agreement the unification decision can be taken over a relatively short period (a year in the case of the German reunification). However, the deeply rooted cultural structural layers of the social body require decades and sometimes even generations to pass in order to be transformed.[13] In this regard, the historically developed ideas in the Western European world that resulted in the creation of the EU in the XXth century have to be adapted in a larger context and to be communicated in the "New Europe" as well. Such a diffusion of ideas that concern the deep levels of the social body cannot be expected to happen instrumentally as a result of a political decision or legal obligation.

The possibility to meet and continually discuss the European diversity in a common public sphere seems to be vital in order to consolidate around a shared European identity and values.

IV. Two approaches towards European values

The third chapter presents an attempt to answer the above-posed questions articulating two separate discourses framing the European values. The first one refers to the essentialist approach looking for a metaphysical reasoning of the universality of the values by developing the common culture, history and human nature rhetoric. The problem that remains to be answered by this perspective is how such inherited in the European tradition values would be coordinated with the principle of diversity proclaimed in the EU with its multicultural reality?

The second reading of the European values presents them in a more postmodern and debatable way and offers a mechanism of reconciling the heterogenic East-West European society. It refers to the existential moment implying that the European values

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[13] Reinhart Koselleck, *Temporal layers. Studies in theory of history* (Sofia: House for Lnowledge and Society, 2002) [Козелек, Р. 2002. Пластовете на времето. Изследвания по теория на историята. София: Дом на науките за човека и обществото].

should not be interpreted as framed by the dispositif of the unity (Foucault, Deleuze), as top-down invented concepts serving the purpose of fostering the European integration but they rather appear to be contextual and subject to public discussions (or communicative action in terms of Habermas).

On the conceptual level the idea of the European values refers to the understanding that there are universally applicable human principles. This view dates back to the cosmopolitan Enlightenment ethics and philosophy and culminates in Kant. According to him, man has a dual nature - the animal side and the rational side.[14] The rational side of human nature uses reason to derive its principles (the moral law) this way making its moral principles objective and universally true. It is due to their ability to use reason that all people are equal and they must therefore never be treated as the means to an end (regardless if they choose to obey the moral law or not). At the same time, only human beings posses rational nature.[15] For the German philosopher the rational capacity is that endows men with dignity, value and identity. Therefore, the rational nature is perceived as more important for the understanding of the human being than, for example, his cultural specificities or ethnic belonging.

The EU continues this rational spirit developing its liberal policies and the universal rights and values discourse. The European discourse that supports the substantial character of the values is initiated with the Declaration on the European Identity from 1973.[16] In the document the possibility for common values in the EU is justified with the understanding that all Member States belong to the European civilization. This way by referring to the common culture or history it is prescribed to certain values that they are European a priori without additional reflection and arguments. In the same line of reasoning, the Declaration speaks about the "unity" as a fundament that guarantees the survival of the European civilization. The issue about the "unity" and the "united" as two different approaches (essentialist and existential) towards European values will be elaborated further in this chapter.

A few decades later in 2007 the European values are included in the Lisbon Treaty and this act gives them a legally binding status. In the Treaty they replace the term "European principles" that was used previously. This terminological change symbolically indicates the transformation to a more emotional rhetoric in the EU.[17] According to Article 1a of the Treaty: "The Union is founded on the values of respect for human dignity, freedom, democracy, equality, the rule of law and respect for human rights,

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[14] Immanuel Kant, "Religion Within the Limits of Reason Alone," in *The Philosophy of Kant: Moral and Political Writings*, ed. Carl J. Friedrich. (New York: The Modem Library, 1949), 373.

[15] Ibid., 394.

[16] Declaration on European Identity, in *Bulletin of the European Communities*, no. 12 (December 1973), 118-119.

[17] Justine Lacroix, "Does Europe Need Common Values? Habermas vs Habermas", in *European Journal of Political Theory* 8, no. 2 (2009): 141-156, 141-142.

including the rights of persons belonging to minorities."[18] The Lisbon Treaty continues the essentialist pathos about the universal values declaring that it draws inspiration from "...the cultural, religious and humanist inheritance of Europe, from which have developed the universal values of the inviolable and inalienable rights of the human person, freedom, democracy, equality and the rule of law."[19]

In the academic sphere Habermas is one of the influential philosophers that in his later works insists for the integration of the European values in the European debate. He considers that they result from the historical roots and achievements of Europe.[20] However, there are a number of critical views on Habermas proposal. For example, Lacroix states that the attempts to define common values brings the risk to undermine the unique normative potential of the EU who has to organise specific National identities. In this respect she asks if indeed the European political project needs the support of the common values or rather of a group of principles of justice.[21]

Castiglione is also skeptical about the historical reconstruction of the European values as to him this way the degree of similarity is exaggerated. He warns that the proposed by Habermas European identity based on "our" values tends to have an exclusive character. Given the multicultural reality in the Union and the mobility of the immigrants, to insist for universal values could lead to social and cultural division and does not create uniting links among citizens.[22]

Therefore, even if the contemporary European discourse on the shared values is well-grounded in the European intellectual tradition the claim for universal validy of the values faces challenges from the multicultural reality of the Union. It was analysed in the previous chapter how the practical application of the European values (when they are essentially understood) is troubled by the dissimilar cultural realms that compose the Union.

Delanty proposes interesting arguments for the reflection on the dilemma between, on the one hand, the discursive construction of the European values as universal on the basis of the European culture, history and civilization and, on the other hand, the principle of respect for (cultural) diversity.[23] Firstly, he discusses the normative status of the Idea for Europe. He distinguishes the cultural sphere from the ethics and locates the Idea for Europe in the first one. Following Habermas' theory about the discourse

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[18] Lisbon Treaty amending the Treaty on European Union and the Treaty establishing the European Community, *Official Journal of the European Union*, 13 December 2007, Article 1a, http://eur-lex.europa.eu/JOHtml.do?uri=OJ:C:2007:306:SOM:EN:HTML.

[19] Ibid, Preamble.

[20] Habermas and Derrida, 8.

[21] Lacroix, 142.

[22] Dario Castiglione, "Political identity in a community of strangers", in *European Identity*, ed. Jeffrey Checkel and Peter Katzenstein (Cambridge: Cambridge University Press, 2009), 44-47.

[23] Gerard Delanty, *Inventing Europe: Idea, Identity, Reality* (Palgrave Macmillan, Basingstoke, 1995).

ethics that separates norms from values, Delanty defines the cultural value as particularistic unlike the ethical principles and norms that pretend for universality. From here he deducts that the cultural value of the European idea cannot have normative and universal character. He argues that the cultural Idea for Europe that has more limited cultural resources for creating meaning unreasonably pretends for universal ethical validity and evaluates (or defines) the non-European world.[24]

He suggests alternative definition of the terms "universality" and "unity". According to it universality does not necessarily imply uniformity and the intolerance of the European ethnoculturalism against the Other but could also be interpreted as plurality and difference. From the understanding of the universality not as looking for common characteristics (or values) but as acceptance and inclusion of the otherness, one can deduce a new definition of the unity. From this point of view the ideal "European unity" is not based on the universal values but on the new model of post-national citizenship. According to Delanty the post-national citizenship is neither "determined by birth, nor by nationality but by residence."[25] Such a model of citizenship transcens the "particularist assumptions of culture and nationality"[26] and is founded on the participation and solidarity of the dissimilar Europeans who respect difference and could offer a basis for an inclusive European identity.

Therefore, the European values should not be interpreted as absolute as they will always present a subjective (even when if it is shared by the majority) perspective. In this regard, the European values are not to be understood as belonging to or a subgroup to the universal values but as an object for constant rational negotiation between citizens, the Member States and the European institutions. This does not change the status of the values as fundamental in the European identity construction but only desubstantiates them – from an absolute they become contextual concepts shaped in dialogue. In other words, the focus on them is shift – from their definition through the Kantian ethics as objective and necessary to their reading in the perspective of the postmodern contextual ethics.

It has to be noted that together with the discourse on the European values that describes them as universal there is an alternative tendency of their perception within the EU. This parallel discussion can be demonstrated through the historical development of the formulation of the EU logo. Initially it was accepted as "Unity in diversity" by the President of the European Parliament, Nicole Fontaine in 2000. After the ratification of the Constitution the motto was modified to "United in diversity".

The "unity" can be interpreted as definite because it obliges – the "common" is already a priori given in the difference. Unlike it, "united" is not engaged with metaphysical universalities and it indicates that the agreement can be aspired regardless of the difference. Through language and the ability of human beings to understand each other

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[24] Ibid, 12.

[25] Ibid, 162.

[26] Ibid.

they "unite" without a need for a metaphysical foundation for the European "unity" be it based on the common culture, history or human nature. This transformation indicates greater desubstantiality on a conceptual level because overcoming the essentialism of the "united" one has more freedom for his existential choice and self-creation.

In this line of reasoning the existential moment should not be interpreted as framed by the dispositif of the unity that implies that no matter how much I create myself it has to be limited by my unity with the other Europeans. "United" can be understood as the above-mentioned perspective of Delanty – in the sense of making common efforts, capable for co-authorship in the writing of the common European narrative. Such an interpretation can be supported by the Latin translation of the motto: "In varietate concordia". "Concordia" could be understood not only as "unity" but also as "harmony", "understanding" and even "peace" – in the Classical mythology Concordia is the goddess of the peace that comes after the battle. From such perspective the "unitedness" is not defined predicatively – there is no need one to abide to certain formally defined unification but it simply points to the fact of the joint efforts to take part in a common project despite the (predicative) difference. The de-substantialisation of the abstract category "unity" into the commitment of the "united" permits a reading of the European values not along certain universal validity that they would bring but in the sense of co-belonging of the European citizenship to a mutual project.

An indication how much the project for the "Future of Europe" is being build according to the ideas for dialogue and communicative rationality that are implicitly suggested by the transformation of the motto can be the actual politics. The criterion is the degree to which it encourages real co-participation of the citizens in the project (that has to be open and not predefined). In other words – this is the space for a real action by the citizens that goes beyond the declarative promises as well as the public sphere where problems resulting from the coexistence in a single European space can be discussed and negotiated.

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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

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[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. Cotthingham, 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 Infinitae (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 Inteligence 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,

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[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

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[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

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[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

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[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]

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[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 pragmatical "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 pragmatical 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*

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[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

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[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.

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[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

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[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

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[18] A hidden factor, working in the protest-campaign, was that the Poznan-region has always felt itself to be overexploited by the Warsaw political center. People of Poznan 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

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[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 a 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 CO_2 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 CO_2 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 (CO_2) 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 *Klempicz* 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

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[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 CO_2 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 Republik 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 *Ignalin-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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book review

Alexander Lee. *Humanism and Empire: The Imperial Ideal in Fourteenth-Century Italy.* Oxford University Press: Oxford 2018.

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The predominantly civic ideological outlook of 14th century humanists is a common locus in the history of political thought. According to modern scholarship, fourteenth century humanists defended republican liberty because of their admiration for the Latin classics. In his perspicacious book, Alexander Lee challenges persuasively the aforementioned view arguing that the humanists' attachment to the ideal of Empire was constant. Their main concern was the establishment of peace and liberty within the political community. As a result, they embraced any constitutional form –traditional or hybrid- that could serve their political goals. Based on recent findings and publications, Lee undertakes a complete survey of the imperial ideal in the fourteenth-century Italy.

The book consists of two parts, complemented with a lengthy introduction, epilogue, bibliography and index. Before the introduction, Lee attempts to define humanism. Instead of giving a brand new definition, he offers to the reader a fascinating and insightful presentation of the history of humanism from the 19th century until today. Lee's comment on humanism would be very useful for teaching purposes.

In his introduction, Lee focuses on historiographical problems. Namely, he holds that, despite the warmth with which the humanists viewed the Empire, most of modern scholarship ignores their attachment to the imperial ideals. Lee explains the basic reasons for this misconception. According to Lee, liberty and its implications shape the outline of the humanists' ideal of Empire. Lee disputes the connection between the humanists' admiration for Ciceronian thought and republicanism. Their predilection for imperial authority was conditioned predominantly by political conviction and not

by cultural concerns.

In the first part, entitled "The Defense of Empire", the author focuses on the humanists' appeals to imperial authority in the Trecento. Lee discerns five distinct phases in the way these appeals were extolled. Furthermore, emphasizing that humanists viewed peace as precondition of liberty, he revisits the dominant analyses in recent scholarship. In addition, he points up the significance of moral discourse in 14th century politics. According to the most influential humanists, liberty did not depend on the constitution; it was rather connected to the moral disposition of the governing elites.

In the second chapter, entitled "The Dynamics of Empire", Lee attempts a more thematic approach, as he discusses significant political events from different perspectives. He reappraises common views about the enforcement of Italian nationalism in the 14th century and the implications of the tension between Guelfs and Ghibellines. Lee holds that the benefits of submission to the Emperor were more significant than the disadvantages. Throughout the fourteenth century, the humanists associated the rebirth of the Roman heyday with the rebirth of Empire.

In sum, Lee offers a new interpretation of humanist political thought that contributes to the reappraisal of the foundation of early modern constitutional ideas. He argues that fourteenth-century humanists showed a consistent affection for the Holy Roman Empire, because they were convinced that the endless conflicts in Italy and Europe would cease only if the Emperor invoke his protection. The book reveals new insights in texts that are well-known to an audience larger than specialists and scholars. It is worth noticing that the ideal of Empire and monarchy is not well-appreciated in recent scholarship and Lee's book fills a lacuna in this respect. Although he contextualizes the historical conditions each thinker wrote within, his perspective is timeless and universal. Lee's analysis is broad, original and careful. As I mentioned before, the main advantage of the book is that it treats the texts with due respect and bases his conclusions on thorough examination and textual analysis. Besides the primary sources, the secondary literature is extensive and up to date.