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ECOLOGICAL WISDOM AS A CHALLENGE FOR PHILOSOPHY OF EDUCATION

Environmental problems are not always small technically or institutionally solvable practical questions. They are (a) first serious, 'wicked' problems: often extremely complex problems and difficult to control both technically and socially. (b) Secondly, they are theoretically challenging problems, that put many paradigmatic assumptions of our scientific and philosophical thinking and basic cultural ideas and values into question. Because pedagogy must reflect the probable future challenges of our children, the environmental questions must have a more important role in forming pedagogical practices, than they currently have. There are many uncertainties involved, so we must keep open different possibilities to handle our relationship to environment. Pedagogy has in this case not one solid fundament to build on and must therefore take many possibilities into account.

Philosophy of education is extremely important field in this new situation. It can inform practical pedagogy with the new problems of environmental thinking. Of course, new environmental consciousness is still developing, there is no philosophical, value-theoretical and ethical, nor scientific-technological and political consensus about the seriousness and solutions of the situation. Anyway, we must be aware of the different possibilities to move on, to build a sustainable relationship to nature.

The danger of relativism is big because it supports environmental denialism: we must also in philosophy take critical realistic alternative seriously, seek metaphysical and ontological fundament, which could guarantee both the wellbeing of man and nature. Subjective constructivism and narrativism of the late 20th century are not fruitful theoretical options here. They only support anthropocentric and narrow culturalistic thinking and do not help to bridge the traditional methodological dualism between humanities and natural sciences.

Classical theories of *Bildung*, of the cultivation and formation of man, have an important theoretical potentiality for our search of a theoretical basis for environmentally wise education. *Bildung* referred originally – until Kant – to the natural growth of organisms. On the other hand, its cultural aspect, the *Bildung* of culture, has in its latin orisins, *cultura*, also a meaning of the cultivation of natural environment.¹ Of course, this aspect can be interpreted in anthropocentric way only. But especially in German Romanticism the pantheistic conception of nature saw human culture in a positive interaction with nature, and especially with wild nature, through which we can learn higher spiritual and aesthetic values. For example, the sublimity of nature can deepen not only our aesthetical wiew of nature, but affect also our basic ethical and philosophical views concerning nature (already the young Kant formulated a view of man, who basically cannot control the mighty nature and denied explicetely the for the early enlightenment typical physicotheological view of man and nature).

The concept of *Bildung* found to my mind its most interesting formulation in G.W.F. Hegel's thinking. He stressed the antagonistic character of *Bildung*. The human development is not a process of harmonic growth, but has necessary moments of alienation. These moments are not negative aspects of outer power, but rather positive challenges for the learning process.

Equally important aspect of Hegelian *Bildung* is political. Education is bound to basic institutional structures of society. Family, civil society and state have their own educational goals. Hegel stresses the independence of education against inherited family traditions (like different religions), which tend to be too conservative and traditionalistic. On the other hand, education must be independent of short term economic interests of capitalistic economy of civil society. Educational institutions are therefore rather parts of state, insofar it represents a reasonable general will of the society towards a better future, towards 'freedom of all' as the ultimate goal of history. (Väyrynen 2016). I would add keeping our topic in mind, that this means of course only positive freedom, through which we must become both socially and environmentally responsible citizen.

¹ And, in principle today, conditions for a sustainable man-nature relationship.

Traditions of wisdom: limits and possibilities

Environmental philosophy has challenged many anthropocentric traces of traditional philosophy, especially in metaphysics and ethics. But the original ideal of philosophical knowledge as wisdom (*sophia*), has been positively accepted as an background interest and synthesizing activity in environmental philosophy and knowledge in general. For example, the Norwegian founder of deep ecology, Arne Naess, spoke already 1973 about *ecosophy*. (Naess 1973/1976). Another example is Finnish philosopher Georg Henrik von Wright, who saw in the Ancient idea of the avoidance of *hybris* a wise environmental principle in 1980's. (Väyrynen 2017). The roots of Western thinking were actually not so anthropocentric, as many historians of environmental thinking have asserted. Even for Plato, who's dualism has been criticized as an anthropocentric position, the idea of cosmic harmony was normative for human action, which should not step outside its proper limits. (Väyrynen 2006).

Not only the classical Greek philosophy but also the original Chinese wisdom, which was expressed in the early *yin/yang* cosmology and ethics, tried to harmonize our relationship to nature. Especially in Taoism, *yin* and *yang* should be in harmonic relationship (*he*) and this harmony was also a normative principle for man's actions. Harmony (*he*) refers to the bringing of all different elements into a proper proportion. If, for example, "there is *yang* without *yin*, there will be no life and peace will vanish". (Wang 2016, 3-5). Wise human action, in China for example successful charioteering, is therefore based in adaptivity to natural environment and forces, functional efficiency in coping with environmental disturbances, and reorganization of inherited behavior patterns to fit the existing environmental situations. *Yinyang* is a configuration of forces, "the rhythm of human life, earth's changes, and heaven's powers", leading to *Dao*, to the wise knowledge, how to use power. (Wang 2016, 11).

For environmental research, von Wright's basic distinctions concerning traditional scientific rationality and environmentally sensitive wisdom are important. He sees already in his essays (from the 1950s) ancient concept of wisdom (*sophia*), especially practical wisdom (*fronesis*), as the main focus of his philosophical thinking. Later on, it is for him important to distinguish between scientific-technological rationality and traditional wisdom, or *rational* and *reasonable*. He writes in his article *Images of*

science and forms of rationality (1985), that “rationality when contrasted with reasonableness has to do, primarily, with formal correctness of reasoning, efficiency of means to an end, the confirmation and testing of believes. It is goal-oriented ... Judgments of reasonableness, again, are value-oriented. They are concerned with the right way of living, with what is thought good or bad for man. The reasonable is, of course, also rational – but the ‘merely rational’ is not always reasonable”. The search for the reasonable was especially typical for the ancient Greeks. They were searching the right natural order, “a *eunomia*, i.e. lawful and just order”. To understand the world order was “to attain wisdom rather than knowledge; it was, as has been said, to attune one’s life to its ‘natural’ conditions”. (von Wright 1993, 172-174).

For von Wright, environmental implications of this distinctions are already here clear. He stresses the importance of human-ecological research. He sympathizes a new holistic world view, which would represent “a new form of scientific rationality”. According to him, this would “encourage a shift in the view of the man-nature relationship from an idea of domination to one of co-evolution”. This could help “the adaptation of industrial society to the biological conditions of its survival” (von Wright 1993, 187).²

All scientific research is based on human interests and values, as for example Jürgen Habermas (1968) has shown. In environmental research, the core values and interests are often explicitly recognized (for example biodiversity, ecosystem health). The traditional concept of wisdom in Greek and Chinese philosophy was basically a knowledge of fundamental values and how they directed human knowledge and actions. It is time to make explicit in the philosophy of science the core values leading scientific enterprise. Environmental sciences should therefore consult environmental philosophy in order to make their ontological and value-theoretical standpoint clear. Environmental sciences lean still often simply to traditional anthropocentric values and this is very problematic, not only for the science but also for environmental ethics and politics.

Also for the philosophy of education, this distinction is very important. Pure rationality in education can lead to the conception of education as pure means for economical and administrative goals, nowadays especially for international

² I have analysed von Wright as an environmental thinker broader in Väyrynen (2017).

economic competition. Education is not seen important as *per se*, for the full human development. An extreme consequence would be a *a la carte* education (as Lyotard 1984 has expressed it) according the contingent needs of economy. For this view, humans are only flexible material for economic purposes without any intrinsic value.

A wise education, on the contrary, would be critical concerning the immediate economic or political trends, because they can lead to bad developments like the emergence of Nazi regime in 1930s, or currently deepening environmental crisis. A wise education should have a long enough historical perspective, in order to recognize dangerous political trends. This has been stressed as well in conservative as radical political thinking (as well in Burke and Marx, to give a classical example): a longer historical perspective can show, how complex entities a wise politics – and as a part of it, education – must take into account. Utopian alternatives – like escaping environmental problems to other planets – are always too simple and have therefore many unforeseen side-effects. Also simple pedagogical solutions, for example the hype of information technology, share the same problem. Children as a part of changing society and environment are extremely complex phenomenon: how to keep the rich possibilities of their bio-psychological and intellectual-emotional development as a solid ground through the antithetic pressures of coming decades? A wise pedagogy has not necessary any better answers (like no one has), but tries at least to recognize central problems involved in this without too simple or utopian answers.

Dialectical thinking: basic structures

Our relationship to nature is antithetic in the sense of dialectical thinking: we try to understand and control an entity, which is radically different than our immediate human world. On the other hand, we are as ‘cultural animals’ a part of nature: we can experience nature directly through our body, emotions and living experiences (*elämys, Erlebnis*), and through concept and categories, which express natural properties, structures and processes. We have also important valuative connections to the nature.

Dialectical logic has developed a system of categories, that express the complex and dynamic interconnections of our thinking and ontological realities. Especially Hegel's *Wissenschaft der Logik* (Science of Logic) exemplifies the extremely complex structures involved – this book is extremely difficult to comprehend as a whole.³ But luckily the organizing principle is quite simple and fundamental to all critical thinking and its problems. This famous structure is the famous Hegelian *triad*, or *thesis – antithesis – synthesis*. It is useful to describe shortly its fundamental idea.

First step, *thesis*, leans on our immediate thinking: something as such is the dominant perspective to reality. This can be as well a position in our ordinary thinking, a *common sense* – view of something, as a scientific, paradigmatic position in some field of research. This position is typical for every reductionistic position in science. But in connection to the objective world, this thesis turns out to be problematic, it leaves residues (Henri Lefebvre), which cannot be properly explained through thesis. Therefore we must try to formulate antithesis, which could explain better these residues. We must take a different perspective or even contradictory perspective. This is often implicit already in the original thesis: for example the simple idea that something 'is', is originally connected to its contradictory thought that something 'is not'.⁴ It is important to note, that not all antithetic develops in this formal way. Material aspects, for example social antagonisms, must be expressed in thinking through contradictory concepts. Master – slave –dialectics is by Hegel the most famous example. For our topic, the great, basic antagonism spirit – nature (Geist –Natur) is especially important.

The relation of thesis and antithesis is typical for all critical thinking: therefore it is pedagogically important. But there is a danger of relativism and scepticism, or

³ It is therefore understandable, that the recently extensive analytical metaphysics and ontology has not taken the challenge of this work seriously. But theoretically this new trend has returned rather back to pre-Kantian metaphysics.

⁴ Already Plato explained the birth of dialectics in this way, see Sophist ... See also my article concerning the interconnections between Plato's and Hegel's dialectics, Väyrynen 2017(a). Dialectical thinking is surprisingly returning in the international discussion through recent analytical philosophy, maybe partly due to its 'metaphysical turn'. Especially the discussion on contrafactual and contrastive causality is in this respect interesting. Of course, in the continental philosophy and international Hegel-scholarship research has been increasingly active even after the decline of Marxist philosophy in socialist countries, for which Hegel was the most important classic. In the Western Marxism this relationship has always been important.

‘negative dialectics’, to use Hegel’s expression. The third aspect, synthesis, should lead to higher, positive result in this respect – ‘positive dialectics’ or speculation.

First of all, synthesis is not a formal combination of thesis and antithesis, it is not a more general conception, in which thesis and antithesis are included as parts. It rather opens up an ontological perspective for the antithetic concepts. For example ‘becoming’ (*Werden*) is an ontological perspective, through which ‘being’ (something is; *Sein*) and non-being (something is not; *Nichts*) can be understood as relative positions to the reality as a whole. ‘Becoming’ as a synthesis makes it possible, to understand on the other hand the limits, on the other hand the relative merits of ‘being’ and ‘not-being’. This is the idea of ‘sublating’ (*Aufhebung*) the contradictory concepts, they partly remain relevant aspects or moments in the higher concept.

One could say, that Hegel’s *triads* express central modal structures of a stratified reality. In the modal theory of Hegel, central modal concept is actual reality (*Wirklichkeit*). Its essence is activity, *Wirken*, and therefore it is understandable, that Hegel criticizes formal possibilities and contrafactual thinking about emptiness. It is more important to stress strata-specific real possibilities in modal thinking. For the pedagogy this means, that instead of utopies, we must think over, what are the central historical possibilities to act in the near future. This does not support deterministic talk common in everyday politics, visions on ‘only one alternative’. Adopting a long historical perspective, as Hegel always did, we can formulate surprising alternatives based on a long historical experience. For example a sustainable way of living is possible without consuming so much as we do. Historical experience can inform us, that it is a real possibility to live with much less consumption that we are used to do.

As you can see, I represent the realistic metaphysical interpretation of the dialectical categories. Hegel’s *Science of Logic* is according to this interpretation a system of ontological categories, which express his stratified ontological position. This kind of interpretation of Hegel’s dialectics is of course fundamental for our topic: how to understand environmental wisdom and to develop a pedagogical theory, that would best suit to its demands.

Hegel was also a pedagogical thinker, whose concept of Bildung is for the theory of pedagogy fruitful and who reflected also concrete pedagogical problems during his rectorship in Nuremberg Gymnasium. (Väyrynen 2016)

Towards a concrete identity with nature?

Hegel criticises clearly the romantic view of man's relation to nature, in which the immediate identity and harmony with nature is the ideal. He analyses especially in his *Vorlesungen über die Philosophie der Religion* (Lectures on the Philosophy of Religion) the romantic pantheism as a form of 'natural religion' (*Naturreligion*). He writes: "The unity of man with nature is a favourite and pleasant-sounding expression ... But his true nature is freedom, free spirituality ... and as thus fixed this unity is no longer a natural, immediate unity. Plants are in this condition of unbroken unity. The spiritual, on the contrary ... has to work its way through its infinite dualism or division (*unendliche Entzweiung*), and to win the state of accomplished reconciliation (*Versöhnung*) by wrestling for it; it is not an original reconciliation".⁵ This view of immediate identity has historically many forms: Hegel mentions for example the idea of innocent children or aboriginal (?) people, the doctrine of the *signatura rerum* in the philosophy of Middle Ages⁶ and the instinctive acting of animals. (Väyrynen 2010, 360). The modern man could overcome his alienation through restoration of this original identity, for example in adopting the ecologically wise conceptions, values and practices of aboriginal people or oriental wisdom. The so called ecological primitivism has supposed also an original ecological wisdom of these people, but this supposition lacks any empirical evidence.

Also according to Hegel, this romantic view is in two respect problematic: it is (a) first empirically not true: aboriginal people are seldom innocent and also the children are often egoistic and bad. (b) Secondly, the more important point is that the innocence is not a real position of man. His ethical life (*Sittlichkeit*) is higher than

⁵ I have partly used the English translation of his Lectures, Hegel 1974, p. 279.

⁶ This doctrine means in Hegel's own words, that "the external quality through which the special peculiar nature of a thing is indicated, so that the specific peculiarity of its nature is at once suggested by this external quality", Hegel 1974, p. 280-281.

the innocence of children. It is based on his self-consciousness will. The man must work for his moral education and *Bildung* through alienation from nature, sketch his essence freely and take as autonomous subject the moral responsibility. Nature is not morally good, it is on the contrary brutal struggle for survival. Also the human history, insofar it is 'natural history' (*Naturgeschichte des Menschen*) is as amoral as the natural struggle for survival. Ethical life can be established only through a hard work for morally good. Nature as such gives for this moral work no clear directions. (ibid., 361-362). Also our own individual good will (*Moralität*) is according to Hegel not enough: we must develop such institutional practices (*Sittlichkeit*), which make a concrete realization of our ethical goals possible. (Väyrynen 2016). This is in environmental ethics extremely important, because for example many of our individual choices as 'green consumers' only help to maintain ecologically harmful industries.

Is the idea of identity totally wrong? Is there in Hegel no continuity from nature to the ethical life and spirituality of man? This question is addressed at the end of Hegel's *Philosophy of Nature*. As we saw, nature as such is amoral or even bad, and cannot therefore give any ethical guidelines. We would even destroy nature, if we would act 'according to nature' in this respect. Despite of this, there is one aspect, in which man and nature are in continuum with each other, and which has also moral dimension. This aspect of nature is its creative force, or in the language of German Idealism, the "inner teleology" of nature.⁷ For Hegel, this makes possible a higher, dialectical identity with nature.

Reconciliation with nature is a dialectical process as the general process of *Bildung*: it has both harmonical and hostile phases/aspects, because we must as tool using animals control and use nature in work process. But we cannot control it totally – in the last analysis, nature is stronger than man. Hegel criticizes therefore the position of 'outer teleology' (or 'limited teleology') and its ways to interact with nature.

Already Kant had made in *Kritik der Urteilskraft* a distinction between outer and inner teleology (*äussere vs. innere Zweckmässigkeit*). His famous example concerning the difference was the natural beauty and its imitation through the

⁷ I have analysed the history of this idea from eastern and early Greek philosophy until the Romanticism in my history of environmental philosophy (Väyrynen 2006) and summarized the central thesis in contrast to recent constructivistic approach of environmental research in an article (Väyrynen 2017a).

human art. Authentic natural beauty, for example a song of a bird, expresses the inner teleology of nature, it is a free act of the bird itself. It expresses the authentic value of nature, which we observe as beauty. (Kant 1966). In German Romanticism and later Idealism this view was connected to the pantheism of Spinoza, who's idea of creative nature (*natura naturans*) was also for Hegel important. For Hegel, inner teleology expresses the real essence of life and affects also the human positive freedom because as living creature, we must in the end learn to reconcile with as well with our own, as for us 'outer' nature.

Hegel describes 'outer' or 'limited' teleology as a goal-oriented exploitation of nature, which does not respect its inner goals and own, intrinsic values. Outer teleology has an empirical (*sinnliches*) relationship to nature, in which nature is objectified, it is only lifeless material for our immediate needs. Hegel writes: "Our practical relationship to nature is dominated through our egoistic needs; our needs strive to use nature for our benefit, to polish, to break up, shortly, to destroy it".⁸ We broke nature to useful parts and are not concerned, what nature is as a whole. Only singular products of nature and their singular aspects are for us important. Hegel dooms with words of Sophokles this kind of practice: "Nothing is more monstrous than man ... unexperienced. He does not reach his goals".⁹

This immediate practical relationship to nature is not the deepest possibility to interact with nature. As Hegel stressed, it is empirical, shallow and responds only to our egoistic, immediate needs. We actually act in this level like lower animals. What would be a higher, properly human alternative? As cultivated humans, we are not bound to this immediate practical action, which actually represents only the 'first nature', a level, in which we act as other animals in evolutionary struggle for survival. As cultural beings, in the moral, aesthetical and intellectual realm of the 'second nature', we are not bound to this struggle.

According to Hegel, we must ask, what nature 'in general' (*Allgemeinheit*) is. Our practical dominance over nature remains always shallow, it cannot reach "nature as such", its generality.¹⁰ This deeper view to the essence of nature can be reached in

⁸ "Das praktische Verhalten zur Natur ist durch die Begierde, welche selbstsüchtig ist, überhaupt bestimmt; das Bedürfnis geht darauf, die Natur zu unserem Nutzen zu verwenden, sie abzureiben, aufzureiben, kurz, sie zu vernichten". Werke 9, 13.

⁹ "Nichts ist ungeheurer als der Mensch ... Unbewandert. Zu nichts kommt er". Werke 9, 13

¹⁰ Werke 9, 14.

the level of dialectical reason, in the position of the 'concept' (*Begriff*). In this level, nature is not an empirical, shallow object of practical exploitation, but an living, active and autonomous entity. In this level it is continuous with human autonomy and freedom. Hegel writes: "the real teleological view – and this is the highest – is based on the understanding nature as free in its original livingness".¹¹

What does this mean to our practical relationship for nature? This question is analysed at the end of the *Philosophy of Nature*, in which the reconciliation (*Versöhnung*) of the spirit and nature is shortly described. Nature is not alien to the spirit, it is rather its necessary moment. The inner teleology of nature represents in the nature the moment of spirit, its seed, which develops through different forms of activity and creativity in nature. The freedom of the spirit is on the elementary level based on this process. The real freedom of the spirit is therefore not an absolute negation of nature in its absolute 'otherness', but rather a reconciliation with it. This reconciliation, and the "true freedom" of the spirit, is therefore a learning process, in which the spirit "luopuu (?) its special way of thinking and understanding (?)". Through this, nature becomes "a mirror of ourselves ... a free reflex of the spirit".¹² I would summarize, that the inner teleology of nature is a parallel characteristic of our real freedom. Our positive freedom presupposes the full development of this freedom in the nature. This connection makes it possible, to value and respect living nature in its autonomous development, for example the protection of biodiversity and the artspecific development of animals.

As we saw, outer teleology, its egoistic actions and negative freedom in dominating nature, is clearly doomed by Hegel. Hegel is not an ethical relativist, although stresses the complex and partly antagonistic relation to nature. We must dominate some aspects of it, insofar this is necessary for survival, but as cultural beings we must strive to this respectfully, in learning and reconciling attitude and action towards nature. Nature is an essential resource of our own *Bildung* on its all – also highest, like artistic and philosophical – levels.

A wise, reason based action must preserve the forms of inner teleology in nature, not only for the sake of nature itself, but also for the sake of humanity as a part of

¹¹ "die wahre teleologische Betrachtung – und diese ist die höchste – besteht also darin, die Natur als frei in ihrer eigentümlichen Lebendigkeit zu betrachten", Werke 9, 14.

¹² (der Geist) "seine besondere Denk- und Anschauungsweise abtut". Die Natur wird ein "Spiegel unserer selbst ... ein freier Reflex des Geistes", Werke 9, 538-539.

nature: as a valuable resource of our own health, wellbeing, social identities and artistic, technological and scientific inspiration. *Ars imitatur naturam* – this is not only true concerning artistic creativity but also culture as a whole. Nature is a cultural resource – this is a direct application of Hegels view of the reconciliation of nature and spirit. Nature is not only a material resource, as in outer teleology. Biodiversity and other ecological values should be respected because of cultural reasons. Even in the field of technology, nature gives all the time new inspiration for innovations: for example scientist try to research, how to imitate the strength of a spiderweb. In this respect, the discussion about the priority of biocentrism or anthropocentrism is a trail with dead end – the more important problem is the reconciliation of nature and culture, as ‘weak’ anthropocentrism and biocentrism are trying to establish.

Time and modalities in environmental education

Natural processes are slow. That is one ‘radically other’ aspect, which is especially today difficult to understand. Not only the past, which environmental history researches, is here problem, but also future. The effects of our actions reach not only in space but also in time far longer than before: every piece of plastic, which we throw in ocean, can have serious effects in ecosystems after hundreds of years. Like Hans Jonas has shown, our technological society challenges in this respect traditional ethics: “the sheer magnitude and often also the irreversibility of the long term effects of our actions make the questions of responsibility central for ethics in corresponding horizons of time and space”. (Jonas 1984, 8-9). It is increasingly difficult to foresee the effects of our actions in time and space as well in social and ecological contexts.

What does this mean for environmental education? First of all, it stresses the meaning of a long historical perspective, as well in environmental history, social and economic history and history of ideas. Present day historians concentrate more and more to the present history because it is easy to research: for example Ancient and

Middle Ages are not so popular topics, because they demand extensive language skills. On the other hand, environmental history is still a marginal area.¹³

Environmental history has been also in environmental education not central. Environmental education stresses the meaning of empirical knowledge, especially living experience (*Erlebnis*) in nature. (Matthies 2004). But the *longue duree* of natural processes and our interactions with them are difficult to grasp in immediate experience: they rather demand combined theoretical and historical knowledge about climate changes, demographical processes, ecological dynamics – and often of their complex interactions. Historical perspective should become a part of teaching also in natural sciences – the old epithet natural history has indeed revived in emergencing environmental sciences. The co-evolution of humans, society and culture and nature is presently fundamental for human ontology and environmentally aware philosophical anthropology. This many-sided historical view is pedagogically fundamental in changing the present day hectic, short term visions so popular in the neoliberal economy and politics. Slow thinking, slow science, slow early human development (as already Rousseau stressed) are pedagogical practices, which can in this respect produce sustainable results: humans, who take better care of their bio-psychological wealth, the wellbeing of other people and responsibility for the slow processes of nature.

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¹³ I have made with Finnish environmental historian Esa Ruuskanen a basic mapping of the short history of this discipline from the 1970s until the present day, and analysed also some theoretical problems of it as a multidisciplinary field of research. (Ruuskanen & Väyrynen 2017).

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